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# Pakistan Gilgit-Baltistan Economic Report

Broadening the Transformation

December 2, 2010



The Government of Pakistan



Asian Development Bank

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## **ABBREVIATIONS AND ACRONYMS**

<b>ADB</b>	Asian Development Bank	<b>GBAD</b>	Gilgit Baltistan Agriculture Department
<b>ADP</b>	Annual Development Program	<b>GBLA</b>	Gilgit Baltistan Legislative Assembly
<b>AIOU</b>	Allama Iqbal Open University	<b>GDP</b>	Gross Domestic Product
<b>AJK</b>	Azad Jammu and Kashmir	<b>GEMCEP</b>	Gemstone Corporation of Pakistan
<b>AKCSP</b>	Agha Khan Cultural Service - Pakistan	<b>GoGB</b>	Government of Gilgit-Baltistan
<b>AKDN</b>	Agha Khan Development Network	<b>GoP</b>	Government of Pakistan
<b>AKES-P</b>	Agha Khan Education Service - Pakistan	<b>GSP</b>	Geological Survey of Pakistan
<b>AKHSP</b>	Agha Khan Health Service - Pakistan	<b>GTZ</b>	German Agency for Technical Cooperation
<b>AKRSP</b>	Agha Khan Rural Support Program	<b>HMIS</b>	Health Management Information System
<b>ALF</b>	Agriculture Livestock and Forestry	<b>IDPs</b>	Internally displaced persons
<b>AMC</b>	Army Medical Corps	<b>IFA</b>	Individual Financial Assistance
<b>ARI</b>	Acute Respiratory Infection	<b>IFR</b>	Instrument Flight Rules
<b>BHU</b>	Basic Health Units	<b>IMF</b>	International Monetary Fund
<b>BISP</b>	Benazir Income Support Program	<b>IMR</b>	Infant Mortality Rate
<b>BWB</b>	Basin Water Board	<b>IUCN</b>	International Union for Conservation of Nature
<b>CAA</b>	Civil Aviation Authority	<b>IWRM</b>	Integrated water resource management
<b>CAR</b>	Central Asian Republics	<b>JICA</b>	Japan International Cooperation Agency
<b>CBOs</b>	Community Based Organizations	<b>KAGB</b>	Ministry of Kashmir Affairs and Gilgit-Baltistan
<b>CDM</b>	Clean Development Mechanism	<b>KARINA</b>	Karakoram Agriculture Research Institute for Northern Areas
<b>COPD</b>	Chronic Obstructive Pulmonary Disease	<b>KIU</b>	Karakoram International University
<b>CPR</b>	Contraceptive Prevalence Rate	<b>KKH</b>	Karakoram Highway
<b>CSOs</b>	Civil Society Organizations	<b>KVO</b>	Khunjerab Village Organization
<b>DoAH</b>	Department of Animal Husbandry	<b>LG &amp; RD</b>	Local Government and Rural Development
<b>DoH</b>	Department of Health	<b>LHVs</b>	Lady Health Visitors
<b>DoMD</b>	Department of Mineral Development	<b>LHWs</b>	Lady Health Workers
<b>ESGO</b>	Empowerment and Self Governance Order	<b>LOC</b>	Line of Control
<b>FATA</b>	Federally Administered Tribal Areas	<b>LSOs</b>	Local Support Organizations
<b>FBR</b>	Federal Bureau of Revenue	<b>MCH</b>	Maternal and Child Health
<b>FLCF</b>	First level Care Facilities	<b>MDGs</b>	Millennium Development Goals
<b>FTA</b>	Free Trade Agreement	<b>MMR</b>	Maternal Mortality Rate
<b>GB</b>	Gilgit-Baltistan	<b>MoF</b>	Ministry of Finance

<b>MFPL</b>	Mountain Fruit Private Limited	<b>PPIB</b>	Private Power Infrastructure Board
<b>MoT</b>	Ministry of Tourism	<b>PTDC</b>	Pakistan Tourism Development Corporation
<b>MTBF</b>	Medium-Term Budget Framework	<b>RTA</b>	Road Transport Authority
<b>MTDF</b>	Medium-Term Development Framework	<b>SDP</b>	Sost Dry Port
<b>MW</b>	Megawatt	<b>SMEs</b>	Small and Medium Enterprises
<b>NACCI</b>	Northern Areas Chamber of Commerce	<b>SP</b>	Social Protection
<b>NAEP</b>	Northern Areas Education Project	<b>SRDPT</b>	Silk Route Dry Port Trust
<b>NAFD</b>	Northern Areas Forest Department	<b>TB</b>	Tuberculosis
<b>NAGMA</b>	Northern Areas Gemstone and Mineral Association	<b>TDP</b>	Tourism Development Plan
<b>NAP</b>	National Aviation Policy	<b>TFR</b>	Total Fertility Rate
<b>NAPWD</b>	Northern Areas Public Works Department	<b>TVE</b>	Technical and Vocational Education
<b>NASSD</b>	Northern Areas Strategy for Sustainable Development	<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organization
<b>NATCL</b>	Northern Areas Trading Cooperation Limited	<b>V/WO</b>	Village and Women Organizations
<b>NATCO</b>	Northern Areas Transportation Company	<b>VOs</b>	Villages Organizations
<b>NATD</b>	Northern Areas Tourism Department	<b>WAPD</b>	Water and Power Department
<b>NATDB</b>	Northern Areas Tourism Development Board	<b>WAPDA</b>	Water and Power Development Authority
<b>NEAS</b>	National Education Assessment System	<b>WMD-AD</b>	Water Management Directorate of the Agriculture Department
<b>NGO</b>	Non-Governmental Organization	<b>WRMDD</b>	Water Resource Management and Development Directorate
<b>PMDC</b>	Pakistan Mineral Development Corporation	<b>WSS</b>	Water Supply & Sanitation
<b>PPHI</b>	People's Primary Health Care Initiative	<b>WUO</b>	Water User Organization

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## Foreword

We are pleased to present the Gilgit-Baltistan Economic Report which is the product of a collaborative effort of the Government of Gilgit-Baltistan, the Asian Development Bank, the World Bank, and other stakeholders to better understand the development process of Gilgit-Baltistan and propose policy actions to help increase economic growth, reduce poverty, and improve social outcomes. In August/September 2010, as this report was being readied for publication, Pakistan endured extensive and catastrophic flooding as a result of unusually heavy monsoon rains. While a detailed Damage and Needs Assessment is being finalized, initial indications suggest massive damages across Pakistan. Gilgit-Baltistan accounts for a relatively small part of this, but the devastation wrought by raging rivers rushing through narrow canyons has been immense. The fast moving waters washed away bridges (including 5 major spans on the Karakoram Highway), link roads, irrigation infrastructure, water supply schemes, and scarce agricultural land.

The flooding disaster has major implications for the development trajectory of Gilgit-Baltistan (as well as Pakistan more widely). The destruction of infrastructure has disrupted private sector activity, severed trade with China via the Khunjerab pass on the Karakoram Highway (already blocked by a landslide in January 2010 and the formation of the Attaabad lake), and has left entire communities cut-off from markets and income earning opportunities. Restoration and rehabilitation activities have put additional demands on public resources. Even with the mobilization of international support, government resources will be stretched and it will be essential to ensure accountability and adequate administrative capacity for effective public resource use. At the same time, the floods present an opportunity to rebuild assets with greater resilience to withstand future disasters.

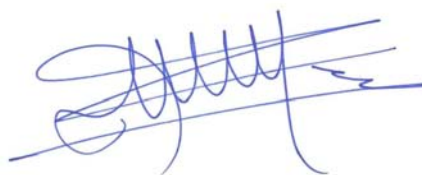
The changed and rapidly evolving circumstances make the key themes as well as the information, analysis, and recommendations brought together in this report even more relevant. The flooding and the Attaabad lake disasters underscore the importance of economic geography in shaping the development of the territory. The introduction of reforms through the Empowerment and Self-Governance Order in 2009 highlights the significance of governance (the other theme woven through the report) and the need to enhance institutional capacity in seeking to effectively address various challenges, including disaster risk management and preparedness. At the sectoral level, the areas reviewed are critical to the development prospects of Gilgit-Baltistan, and the policy options identified will help accelerate progress. Looking forward, the Damage and Needs Assessment, coupled with more detailed analyses of the fuller implications of the floods will help underpin requisite development initiatives, and we hope that this report will be useful in providing a baseline as well as galvanizing the strong engagement of all stakeholders for the future of Gilgit-Baltistan.

Rune Stroem

A handwritten signature in blue ink, appearing to read 'Rune Stroem', with a stylized, flowing script.

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A handwritten signature in blue ink, appearing to read 'Rachid Benmessaoud', with a stylized, flowing script.

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## **Executive Summary: The Quest for Greater Well-Being and Faster Growth**

1. **Parts of Gilgit-Baltistan (GB), the northeastern most administrative region of Pakistan, have been undergoing a dramatic transformation over the last three decades.**<sup>1</sup> Given the challenging environment, GB's development outcomes are impressive, built on the time-tempered resilience of the people of GB and facilitated by high levels of social capital. GB has also benefitted from the attentions of the national Government of Pakistan (GoP) (motivated in no small measure by geopolitical and national cohesion considerations) and the strong engagement of civil society organizations (CSOs). The signs of economic and social change are unmistakable, and in those areas that have become well connected to the rest of Pakistan through the Karakoram Highway (KKH), for example, people have moved to cities, accessed markets, implemented new technologies, availed of health care, enrolled in university, and adopted other trappings of modern life. In some aspects of education, health, and water and sanitation, the people of the region enjoy equal or even better status than is prevalent in the rest of Pakistan.

2. **Still, it bears recognizing that in many ways development in GB is against the odds, due its tough geography and special administrative arrangements (including sharp fiscal constraints), as well as the difficult wider Pakistan context (security problems and macroeconomic / fiscal challenges).** The region is geographically isolated, the population is small and dispersed, the distances are felt more acutely due to the harsh terrain and variable weather conditions, and the longstanding divisions—both internal and external—impair the movement people, goods and ideas. Governance arrangements are complicated by the unresolved constitutional status of GB, the limited institutional capacity of the Government of Gilgit-Baltistan (GoGB), and the complete fiscal dependence on the GoP.<sup>2</sup> While GB has enjoyed better security conditions than much of the rest of Pakistan, the deteriorating situation in neighboring provinces harms its development prospects. A confluence of circumstances has also placed sharp strains on the rest of Pakistan, including the coffers of the GoP, and GB's allocation looks certain to be constrained in the near future. What these shifting factors mean on the ground is that development has been very uneven, with many people in remote areas subsisting largely the same way as have previous generations.

3. **The cardinal questions for GB are: Where to from here? What must be done to meet the challenges noted above and sustain a strong trajectory of growth and development? These are the core questions addressed in this report.** While recognizing that the authorities in GB are grappling with issues that have a strong bearing on the prospects of the territory but are largely driven by considerations much beyond GB, the report presents policy options that would help improve the odds of

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<sup>1</sup> Gilgit-Baltistan is the Pakistan administered portion of an area over which India and Pakistan have been in dispute since 1947. In preparing this report, the team does not intend to make any judgment as to the legal or other status of any disputed territories or prejudice the final determination of the parties' claims. The Northern Areas were renamed Gilgit-Baltistan as a part of an Empowerment and Self-Governance Order approved in September 2009. Through subsequent related initiatives, the Northern Areas Administration was renamed the Government of Gilgit-Baltistan.

<sup>2</sup> The World Governance Indicators compiled by the World Bank define governance as follows: *Governance consists of the traditions and institutions by which authority in a country is exercised. This includes the process by which governments are selected, monitored and replaced; the capacity of the government to effectively formulate and implement sound policies; and the respect of citizens and the state for the institutions that govern economic and social interactions among them.* (Source: <http://info.worldbank.org/governance/wgi/index.asp>).

good development progress and contribute to positioning GB to benefit from any positive turns in the wider circumstances that hopefully lie ahead. Such policy options at the sectoral level emphasize:

- Spurring private sector led growth, with good potential evident in agribusiness, minerals, tourism and trade.
- Enhancing public service delivery, in the areas of social protection, education, health, and water and sanitation, which contribute directly to well-being and facilitate private sector led growth.
- Ensuring the adequate maintenance of existing infrastructure assets (especially in irrigation, energy and transport), while scrutinizing new capital projects for maximal development impact in GB and/or contribution to national level progress (like the planned development of mega-hydropower resources).

**4. The prospects for successfully following through on some of these policy options hinge on efforts to implement cross-cutting initiatives, including strengthening public administration, improving coordination with CSOs, enhancing public expenditure management, and sustaining the engagement of all stakeholders.** More human resources and enhanced institutional capacity in the GoGB will be needed in order to ensure effective governance and enhanced accountability to local stakeholders. CSOs have been playing an important role in a range of areas, including critical delivery of public services. Leveraging their capacity will be helped through better coordination of activities, including monitoring and evaluation. Although some of the policy options highlighted in the report would have little fiscal impact (like liberalizing trucking across the border to China), most have substantial fiscal implications. In some cases, the cost of needed initiatives can be met by trying to make public spending more effective, such as linking capital and recurrent spending within multi-year budgets, or reallocating more funds from new capital projects to ensuring adequate operations and maintenance of existing assets. In other areas, major additional spending and engagement from outside GB is needed, based on the recognition that expanding the KKH or developing mega-hydropower plants will play an important role in helping meet several national level development objectives, like expanding regional trade or relieving national electricity shortages. While the expansion of the KKH is ongoing, other mega-projects will need to await the greater availability of national fiscal resources, or other favorable turns. In the interim, meaningful progress can be made in positioning GB to benefit as much as possible from such investments in the future. Advances along these lines would give GB good prospects of keeping pace with the rest of the country, despite unfavorable odds, and help close gaps persisting in lagging areas.

**5. This report seeks to contribute to the policy debate and support the efforts of the people of GB to continue defying the odds.** Encouraging the development both of the people and the platform (the GB territory) has wider implications for Pakistan and the region, in terms of getting the most out of water resources, addressing acute power shortages, fostering regional integration, and underpinning national cohesion. The report was prepared on the request of the Government of Pakistan (GoP), seeking an effort similar to the collaboration with the governments of Punjab, NWFP, Sindh, and Baluchistan, aimed at producing economic reports that outline the economic and social records of the provinces, analyze the constraints to their development, and propose policy actions to increase economic growth, reduce poverty, and improve social outcomes. As such, it does not seek to answer all questions about GB or comprise a fully worked-out development strategy. The intended audience is policy makers at the national and GoGB level, as well as CSOs and other stakeholders. While data is severely limited in GB, every effort was made to compile broad ranging information as systematically as possible and place this in the wider Pakistan context. The initiative was undertaken jointly with the Aga Khan Development Network (AKDN), and the Asian Development Bank (ADB), and was also generously financed in part by the United Kingdom's Department for International Development (DfID).

6. **The structure of the report follows the storyline of seeking to overcome the odds and broaden the transformation, with a review of development performance to date, a discussion of the main challenges the GB faces, a set of discussions at the sectoral level (based on a series of background papers that are available separately and listed in Annex 2), and an appraisal of what it will take to follow through on some key policy options, in terms of capacity, consultations, political will, fiscal reforms, and additional resources.** The sectoral narratives are arranged in three groups: sources of private sector led growth (agriculture, minerals, tourism, and trade), key public services (social protection, education, health, and water supply & sanitation) and essential infrastructure (irrigation, electricity, and transport), all of which are critical to enhancing development performance. Meaningful steps and actions that would promote progress in each sector are identified, separated into those that appear feasible now, and those that will need to await more favorable circumstances in the future. The rest of the executive summary mirrors the structure of the main report, concluding with a table listing the top 15 proposed policy options for immediate action and for pursuit over the medium-term (the full set of policy options is compiled in Annex 3).

### **Overall Development Performance to Date – Defying the Odds**

7. **At the very outset, it should be noted that consistent and comparable data are lacking, and that monitoring and evaluation systems need to be strengthened.** There are very few statistics from earlier periods, limiting the extent to which the narrative of transformation in parts of GB, apparent from anecdotal evidence, can be fully captured in numbers. The data cited in the report come from divergent sources with varying degrees of accuracy, but give at least some indication of the current status, and efforts have been made to place whatever data on GB is available in the broader context of Pakistan.

8. **Despite its inherent disadvantages, GB has shown good economic progress over the last decade.** Unfortunately, national income accounts data documenting this economic transition are not available. The analysis in the report is based on income from the PSLMs, combined with income growth data from the periodic household economic surveys carried out by the Aga Khan Rural Support Program (AKRSP). These suggest that GB's GDP was roughly Rs 37 billion (\$600 million) in 2004-05, or about US\$600 per capita. GB accounts for less than 1 percent of Pakistan's economy, but appears to be growing strongly, with annual per capita income growth of 6.5 percent between 2001 and 2005, somewhat faster than the national average of approximately 5.3 percent. This is helping to narrow the gap in its per capita income compared with the rest of Pakistan, but it should be noted that there are major variations between GB's districts.

9. **Growth has been supported by the gradual commercialization of agriculture, as well as economic diversification outside the farm sector.** As recently as 2005, the marketed agricultural surplus was estimated at only 15 percent of the total output, but there has been a gradual shift from subsistence farming to cash crops and fruit production. The transformation of the farm sector is more pronounced in those parts of the region that are connected to market towns through the KKH, which plays a major role in the level of commercialization (the share of total production that is marketed as surplus) as well as specialization. Activity outside agriculture is also contributing strongly to growth, and the share of household income accounted for by non-farm income rose from 43 percent in 1994 to 63 percent in 2005. Services are the biggest source of non-farm employment, accounting for 26.7 of overall employment in 2004/05, followed by construction with 10.5 percent. The share of the manufacturing sector in total employment was negligible. Finally, it is also worth noting that the public sector is a major employer in GB. Future economic dynamism is expected to stem from the implementation of proposed mega-hydropower projects, the mechanization of mining, the development of tourism, and the expansion of services and production that depend on agglomeration and closer integration with the market nexus.

**10. The high incidence of poverty and vulnerability remain key concerns.** Despite the good growth performance in recent years, GB's per capita income levels are about 90 percent of the national average, and GB's incidence of poverty was around 29 percent in 2004/05, substantially higher than the 24 percent rate recorded for the rest of Pakistan. While the urban – rural divide appears smaller in GB than in other parts of Pakistan (indeed, rural areas of GB, comprising 86 percent of the population, are broadly on a par with the national average for rural areas), regional disparities are a significant issue within GB. For instance, the incidence of poverty across different districts of GB ranged from about 14 percent in Gilgit to 33 percent in Ganche district in 2005. This places Gilgit closer to Sindh in poverty incidence, while Ganche was as poor as the NWFP. Overall, major challenges remain, especially in mitigating the risks faced by the poor, as they move out of subsistence agriculture, possibly undermining traditional social safety nets before they can be replaced or meaningfully supplemented by formal structures. Still, important gains are being made in improving the well being of the people of GB, which is especially remarkable given the difficult circumstances.

**11. Economic growth and progress on reducing the incidence of poverty has been accompanied by good performance on some key areas of human development.** GB's net primary enrollment rate and literacy levels are close to those found in the leading provinces of Sindh and Punjab, and substantially higher than in NWFP and Baluchistan. The net primary Enrollment rate among girls in GB was ahead of all other provinces except Punjab, and the adult literacy rate in GB has almost quadrupled from a meager 15 percent in 1981 to 51 percent in 2005, leading to a full convergence with the rest of Pakistan. In terms of health outcomes, acute malnutrition and protein calorie deficiencies in GB were among the lowest in Pakistan, and the incidence of diarrhea in the past 30 days among children under age 5 in GB was the lowest among all provinces—5 percent compared to a range of 12 to 16 percent experienced in other provinces. This is largely due to the relatively high availability of piped water, at 62 percent of households, compared to a low of 29 percent in Punjab.

**12. Despite such advances, GB is behind on several national MDG targets, especially those related to child and maternal health.** The infant mortality rate was estimated at 122 per thousand live births for 1998-99, compared with 86 for the rest of Pakistan in the same year (which fell to 78 in a more recent survey in 2006-07). Data on maternal mortality rates are similarly problematic, and were estimated at 600 in 1998-99 in GB, compared to the national average of 297 in 2006-07. Making progress on reducing the infant and maternal mortality rates is especially challenging in remote mountain contexts with limited access to institutionalized delivery by trained professionals, since there is little advance warning of disaster, and then it is too late. More effort is needed to monitor these key health outcomes in order to help inform policy and calibrate the appropriate emphasis on supply or demand side measures. It is also worth noting that there are significant disparities between districts within the region. For example, in the specific catchment areas where the Aga Khan Health Services Pakistan has been complementing public service delivery with additional efforts to improve maternal and child health care, the IMR has fallen to 33, in all likelihood far below the rates in Diamer where CSOs are not engaged. The story is similar for literacy and other human development indicators.

## **The Key Challenges of Development in GB**

**13. Growth and development face several obstacles in GB, centered on difficult geography and complicated governance arrangements, compounded by the challenges of the wider Pakistan context.** Given the impediments faced by the people of GB, the progress to date is in many ways remarkable. Continued improvements will hinge on addressing some of these issues, and responding effectively to attenuate adverse impacts where possible.

**14. The mountainous terrain and rough neighborhood have had a powerful influence on the economic development process of GB.**<sup>3</sup> There are few places on earth where one is as awe struck by physical geography as in GB, lying at the confluence of the Karakoram, the Hindu Kush and the Himalayan Mountains, and encompassing five of the world's 14 8,000 meter peaks, including some of the steepest gradients (Mount Rakaposhi rises 5800m over an 11.5 km horizontal distance). Much of the region lies in a rain shadow, receiving very little rainfall, and agricultural production is sustained primarily through irrigation drawing from glacier fed rivers raging through the narrow valleys. While GB's strategically important location is often highlighted, as it lies on one of the silk routes of old (many stretches of which have been transformed into the KKH) linking Pakistan and China, the region remains comparatively isolated and GB's geographic location is disadvantageous. To the north, GB borders vast and sparsely populated areas of China, and the only connecting road is closed for at least 3 months a year due to snow. To the northwest, lies the inaccessible Wakhan Corridor of Afghanistan. To the west, GB abuts the Malakand division of NWFP where there was open conflict during the first half of 2009. To the South, the line of control across to India is effectively closed.

**15. These features translate into an economic geography characterized by low density, acutely felt distances, and significant internal and external divisions, which pose formidable obstacles to development.** GB's population is small and spread thinly across the territory, with 12 people per square kilometer compared to 359 in Punjab. The two largest cities of Gilgit and Skardu have less than 100,000 people each, and 86 percent of the population lives in rural areas. This leads to a lack of scale economies and productivity, with much of the population working in subsistence agriculture and the informal sector. Distances are substantial in GB, made more onerous by various uncertainties. While a straight path from Islamabad to Gilgit would extend about 270 kilometers, 40 percent of the flights between the two cities were cancelled in the course of 2009 due to weather, as a line of sight through mountain passes is required. Traveling by road along the KKH, stretches the distance to 580 kilometers, and with many sharp curves, speed is limited to around 50-60 kilometers per hour. The journey between Islamabad and Gilgit typically takes 12-18 hours. Frequent closures due to landslides and snow add to uncertainty. North, in the other direction, it is 280 kilometers to the Khunjerab Pass on the border with China, and once on the other side of the border in China, the nearest city of more than 100,000 people is Kashgar, another 490 kilometers. Off the KKH, road density is very low, and in many areas more than 24 hours of travel time is needed to reach the nearest city of 100,000. Distance is also felt in other ways, such as GB not being connected to the national electricity grid or broadband internet. Finally, major divisions across ethnic, linguistic, sectarian and cultural lines also impede the movement of people, ideas and goods internally as well as externally. Access to the wider nexus of markets and human interactions is improving in the towns and along the main corridors, but needs to be expanded in order to spur development.

**16. Another key challenge confronting GB has been its complicated governance arrangements, which have hampered effective public administration and use of the budget as an instrument of development.** Recent initiatives seek to promote greater autonomy and address some of these issues, but much will depend on implementation. In comparison with other provinces of Pakistan, the legislative and administrative authority of GoGB has historically been very limited, thus making it hard to ensure local accountability, build capacity, and mobilize resources for better well-being. Encouragingly, significant

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<sup>3</sup> The role of geography in economic development has been the subject of a growing body of research. 'Poor geography' leading to 'low returns to economic activity' is one of the key binding constraints highlighted by the growth diagnostics framework of Hausmann, Rodrik and Velasco (2005). More recently, the World Bank's *World Development Report 2009 - Reshaping Economic Geography* analyzes the spatial dimensions of development, emphasizing the impact of density, distance and division with its key message of that growth will be uneven but can still be inclusive. These analyses are discussed in more detail below, including in Box 3.1 and in Annex 6.

progress has been made starting last year, including the passage of the Empowerment and Self-Governance Order (ESGO) in September 2009, and the subsequent notification of the GB Rules of Business 2009 and the GB System of Financial Control and Budgeting Rules 2009. Whether these steps enhance accountability and improve public service provision will depend on implementing proposed reforms (including the further devolution of administrative powers to municipal governments) while strengthening the GoGB's capacity to execute its increased authority.

**17. The constitutional status of GB, despite these recent governance reforms, remains largely undefined.** The federal government plays a strong role in administering the territory and local accountability institutions are nascent and being strengthened. Following the conflicts between India and Pakistan, the areas controlled by Pakistan were split into Azad Jammu and Kashmir and Gilgit-Baltistan (previously called the Northern Areas), administered by the federal government through its Ministry of Kashmir Affairs and Gilgit-Baltistan (KAGB).<sup>4</sup> Until late 2009, the federal minister for KAGB—a cabinet member chosen from amongst the elected members of the National Assembly from Pakistan's four provinces—chaired the Gilgit-Baltistan Legislative Assembly (GBLA), which is GB's apex body of locally elected representatives. With the promulgation of ESGO 2009, the governance structure in GB has been brought closer to a provincial set-up, entailing the appointment of a Governor (currently held by the Federal Minister of KAGB) and the election of a Chief Minister, as well as the implementation of other judicial reforms. Still, the people of GB do not have a vote in the National Parliament, and the GBLA's authority falls short of that exercised by provincial governments. At present, the granting of full provincial status to GB and enfranchising its people at the national level are not viewed as feasible by the central government due to constitutional constraints and concerns that this could be interpreted as an acceptance of the status quo on the Kashmir issue.

**18. As a result of these special administrative arrangements, the people of GB have had limited voice.** Progress on enabling local stakeholders better to articulate local priorities, formulate policy, and implement initiatives will depend on boosting local capacity. Without full democratic representation at the national level and with weak administrative capacity, the ability of the people of GB to chart their own course is limited. The Constitution of Pakistan does not apply in its entirety, including the provisions for legislatures at par with other provinces, the autonomy to appoint civil servants, and the powers to tax and spend. The GBLA is authorized to propose legislation in some 80 areas, but in practice, few bills originating in the GBLA have been passed into law. Key functions, like the Auditor General, are accountable to people appointed by the GoP, rather than local institutions and stakeholders. However, the recent reforms under ESGO, which among other things provides for the establishment of a public service commission and authorizes the GBLA to debate the budget, are important steps in the direction of greater devolution. The broader ramifications of ESGO will depend on the manner of implementation and how the capacity and authority of more locally accountable institutions will evolve relative to powers currently exercised by the national government. These concerns notwithstanding, it is worth noting that GB receives substantial attention from the GoP, as evidenced by the great outlays for the KKH, the substantial military presence (an important source of local employment), and the general fiscal support.

**19. Public spending is one of the government's most potent policy tools to ensure the effective provision of public services and foster growth, and in GB, the budget depends completely on the federal government, which is itself facing sharp fiscal constraints.** With its weak economy, GB has a very limited revenue base, and with its unique constitutional status, whatever modicum of taxes that are collected within GB's jurisdiction, is deposited into the Federal Consolidated Fund (though the ESGO

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<sup>4</sup> The Ministry's name was changed from Ministry of Kashmir Affairs and Northern Areas (KANA) to the Ministry of Kashmir Affairs and Gilgit-Baltistan (KAGB) with the territory's name change as part of the ESGO in September 2009.

provides for the establishment of a separate GB consolidated fund). Hence, the GoGB has no revenue of its own, and relies solely on grants from the federal budget to meet expenditure needs. In addition, the grants are compartmentalized into use type, recurrent and development grants, limiting flexibility. While the provision of the recurrent budget under two separate grants can be justified on the basis of its unique administrative structure, providing the development budget under a tied grant creates rigidities and fragmentation in budget-making, as funds from one type of grant cannot be shifted (except through a cumbersome process). This mode of funding various components of the budget under tied grants creates disincentives for budgetary savings. For example, if for any reason the GoGB is unable to utilize the entire development budget, the savings cannot be shifted to the recurrent head, even if this is where these funds may be more urgently needed or could be better utilized. In sum, fiscal management is limited to an allocation exercise, with policies and levels determined by the GoP. There is also little scope to mitigate the vulnerability of GB programs to fiscal adversities experienced at the national level.

**20. In addition to the obstacles to development posed by difficult geography and institutional arrangements, GB also faces challenges beyond its control associated with the wider Pakistan context, especially security and macroeconomic issues.** The security situation in Pakistan has deteriorated in recent years, manifest in a series of terrorist attacks and a full-fledged war with militants in the Federally Administered Tribal Areas (FATA) and NWFP during the course of 2009. Full scale military operations have led to about 2.7 million internally displaced persons (IDPs). Taking care of IDPs as well as reconstructing the conflict-damaged areas will be a challenge going forward. The volatile political and security environment has complicated the efforts of policy-makers to respond to external shocks, like the food, fuel and financial crises that have buffeted Pakistan in recent years. In order to address growing macroeconomic imbalances and avoid a default on foreign debt, the GoP moved forward with a stabilization program at the end of 2008 (supported by the IMF), but the situation remains precarious.

**21. GB has been fortunate to avoid much of the direct impact from both the conflict and the macroeconomic difficulties hurting progress in other parts of Pakistan, but it is still adversely impacted by these developments in a number of ways.** The deteriorating security situation undermines economic activity. Tourism, for example, has much potential, but the absence of direct entry points and the increasingly negative perceptions about Pakistan mean fewer arrivals. The chances of attracting investment into mining or other key sectors from outside GB are much reduced in the present environment. Slowing growth in the rest of Pakistan also translates into fewer income earning opportunities for GB migrants, and weaker remittance flows. Finally, the macroeconomic difficulties faced by the GoP constrain the scope for expanding the federal grants made to GB or following through on the mega-hydropower projects and key initiatives like connecting GB to the national electricity grid. These factors combine to hamper the growth prospects of GB in the short- and medium-term. The lack of fiscal space also constrains what will be feasible in terms of policy options at the sectoral level.

## **Meeting the Challenges of Development in GB**

**22. For all of the challenges facing Gilgit-Baltistan, both endemic and extraneous, various policy initiatives would help GB make progress towards its development goals.** Moving forward on policy options to spur private sector development, enhance public service provision, and improve infrastructure services would contribute to better outcomes on the ground. Several appear feasible in the short-term; others are pursuits for the medium-term.



## **a. Identifying Development Goals**

23. **Among other forums where GB's development objectives are set out, there are three main strategic documents that outline the broad programmatic thrust for the territory: the 2003 Northern Areas Strategy for Sustainable Development (NASSD), Pakistan's Medium Term Development Framework 2005-10, and GB's equivalent framework covering 2005-10.** The NASSD was prepared under the leadership of the GoGB and the International Union for Conservation of Nature (IUCN) through extensive consultation with local stakeholders, and states that the long term goal is to secure the social, economic and ecological wellbeing of the people of the GB. Its ten-year objective is to create and strengthen institutional arrangements to promote both conservation and development for sustained outcomes. It also aims to make significant progress towards the achievement of the MDGs. To this end, the NASSD seeks to improve the functions of governance, civil society, population control, poverty-reduction, gender equality, education, environmental health, urban environment, energy sustainability, cultural heritage and tourism, as well as the management of natural resources (agriculture, rangeland and livestock, forests, biodiversity, water and minerals). Progress made to date on the implementation of the strategy has been mixed, and is reviewed in Annex 4.

24. **Pakistan's Medium Term Development Framework (MTDF) outlines the development objectives and strategies for the country as a whole, including less-developed regions such as Gilgit-Baltistan.** Its key objectives are to ensure the equitable development of all regions, to establish a just and sustainable economic system for reducing poverty, and to achieve the MDGs. As part of this balanced development agenda, the MTDF aims to bring "special areas," such as GB, FATA and Azad Jammu and Kashmir, up to par with the rest of the country in terms of outcomes.

25. **Following the broad guidelines of the national MTDF, the Gilgit-Baltistan MTDF 2005-10 proposes prioritizing efforts in three key areas:** investing in promising sectors such as minerals, tourism, and trade, building human resources through education, and developing physical infrastructure, including in hydropower and communications. While the outline recognizes GB's high dependence on agriculture and the need for greater productivity, it is notable that at the outset, agriculture is ruled out as a priority sector due to the limits imposed by extreme climatic conditions and the lack of arable land. Hence, the focus of private sector development is on minerals, tourism and trade. In social sectors, the MTDF highlights the achievements made in literacy and aims to reach 100 percent primary Enrollment among boys and 95 percent among girls by the end of the period. The framework also envisages major efforts in the areas of health and water supply & sanitation. The development of physical infrastructure is to center on hydropower, electrification, transport, and communications. These priorities have also broadly guided the development plan outlined in the Report on Transition to Self-Governance and Development of Gilgit-Baltistan, prepared by the Transition Committee in October 2009.

## **b. Spurring Private Sector Led Growth**

26. **While the formal private sector of Gilgit-Baltistan is comparatively small, there appears to be good potential for improving productivity, value addition and marketing in agriculture, as well as accelerating private sector-led growth over the medium-term through investments in minerals, tourism and trade.** In each sector, good performance will depend on the ability of people to agglomerate economic activity, connect to markets, and overcome barriers hampering the mobility of people, goods and ideas. Strengthening the capacity of relevant public agencies, increasing the effectiveness of public resource use, and enhancing the engagement of CSOs will also be essential. Progress in boosting private sector development is especially important in GB in order to broaden income earning opportunities.

**27. As noted above, the lack of reliable data limits the information and analysis available to policy makers, but the indicators that can be pieced together from various sources suggest that the formal private sector is small.** In the absence of more consistent national income accounting, only partial and rough estimates of sectoral outputs can be made. The scale of retail services or construction is not known. Much of the output from agriculture, with the exception of few cash crops and fruits, is not marketed. Accurate estimates of minerals activity are not known, and the contribution of tourism and trade is opaque. Broad indications can be assembled from the sources that are available, such as data on employment and household income. Employment figures suggest that more than a third of all formal employment is with the government (of which half is in the military). When combined with AKRSP survey data indicating that more than half of household income is derived from informal sector activities, the suggestion is that only a small portion of economic activity is undertaken in GB's formal private sector. The understanding of the development process in GB would benefit from greater data generation and dissemination efforts.

**28. Agriculture, livestock and forestry (ALF) remains the primary source of livelihoods for many of GB's people, and realizing further gains in the sector centers on improving input techniques and market access.** In 2005, about 45 percent of the total labor force in the region was engaged in agriculture, and ALF activities contributed 41 percent of household incomes. Initiatives implemented over the past few decades, such as the construction of the KKH and the provision of agriculture extension services by the government, the United Nations Food and Agricultural Organization and AKRSP, have been instrumental in introducing new technologies and improved crop varieties, such as potatoes and cherries. Still, an overwhelming part of the traditional crop production remains subsistence and suffers from major productivity gaps. For example, the lack of market access and food processing capacity translates into fruit wastage rates of around 38 percent. Hence, deficits are common in the local production of key ALF products, including grain, milk, meat and fuel-wood, necessitating imports from outside (GB benefits greatly from Pakistan's subsidized wheat program).

**29. ALF lacks dynamism due to limited productivity growth and the slow pace of the transition towards greater commercialization.** Less than 2 percent of the total land area is arable (and even this typically requires substantial investment in irrigation), and opportunities to expand production and generate scale economies are tied to the development of water. There exist major productivity gaps in cereals, livestock and commercial fruits when compared with other parts of Pakistan, and the cost of providing inputs, marketing and extension services is high. Long distances coupled with inadequate transport and storage infrastructure affect the marketability of perishable produce. High-tariff and non-tariff barriers on farm produce hamper exports across the border to physically closer markets in China. This slows the transition towards greater commercialization, specialization and value addition. The technical and fiscal capacity for government initiatives remains weak, especially in supporting the modernization of the sector.

**30. Enhancing the transformative role of the farm sector and strengthening the management of forest resources are important in GB and would require policy actions to enhance productivity, mitigate production losses, expand value addition, boost commercialization, and scale up research and extension services (mainly in horticulture and livestock).** In crops and fruits, this would mean increasing the supply of improved planting material, investing in infrastructure (including storage and processing facilities as well as physical agricultural markets), and capitalizing on organic and fair-trade possibilities of agricultural production in GB. In livestock, higher productivity hinges on improving animal breeds through careful selection and increasing the availability of animal feed by establishing local feed mills. In forestry, the involvement of communities in the management of forest and wildlife resources, and the linking of conservation efforts to income-generating opportunities, such as trophy hunting, eco-tourism and carbon trading, is essential to getting the most out of these scarce resources.

Building the capacity of relevant line departments and coordinating their activities with CSOs will be important to making progress.

**31. The mineral sector could serve as a driver of growth and employment, if the geological potential of GB were realized.** The territory has a diverse mix of precious and semi-precious stones (such as rubies and sapphires), dimension stones (like marble and granite), and metals (including gold, copper, molybdenum and tungsten). The sector is in its infancy, however, accounting for only a small share of employment, income, and government revenues. The mining and quarrying sector employs scarcely 0.1 percent of the region's workforce, for instance. Only recently, some CSO-led initiatives have started to support value addition based on gemstone cutting and jewelry making. Public spending on promoting mining and related activities is very small. Exploiting these resources and moving into higher value-added activities in the sector will be important to expanding income earning opportunities in the region and helping people exit subsistence agriculture and poverty.

**32. The performance of the mining sector is impaired by difficult physical accessibility, weak administrative capacity to ensure effective regulation, and limited investment.** Mineral deposits are dispersed across the difficult GB terrain, making it hard to generate economies of scale. For example, many of the gemstone veins occur at altitudes of 4-6,000 meters, and are tapped mainly on an artisanal basis. Large distances between mining areas and urban markets also mean that the costs of providing supporting infrastructure, such as roads and electricity, are prohibitive. Finally, in some cases access to areas with good geologic potential is hampered by security issues, as well as conflicts between tribally held communal property rights and the mining investor's need for clearly defined private property rights. The Department of Mineral Development is understaffed and has little capacity for some of the critical functions of mining administration, such as producing geological surveys, generating basic geological data, and promoting business opportunities. Large scale investment in the sector is absent, and much of the ongoing mining activity is artisanal and very small scale, with few if any royalties collected.

**33. Accelerating development in the sector will require a comprehensive set of actions, including implementing fully the National Mineral Policy, improving mineral management, fostering investment and strengthening downstream linkages.** This involves initiatives aimed at building administrative institutions (establishing a Mineral Investment Authority and a separate department of mineral resources), bolstering technical capacity, increasing the geological information available at the pre-competitive stage, and facilitating marketing and value addition. In developing appropriate policy responses, the GoGB and other stakeholders will need to consider steps that will boost the returns and safety of continued artisanal mining activity in the near-term, while laying the foundations for formal, mechanized, and large scale mining activities over the medium- and long-term.

**34. Tourism based on GB's stunning landscape and rich cultural heritage offers broad based income earning opportunities.** For all the difficulties geography poses to development in GB, in the case of tourism, it is one of the main draws, bringing in thousands of adventure tourists seeking to challenge some of the most forbidding 8,000 meter peaks in the world, or trek across massive glaciers interspersed with alpine meadows. There were about 15,000 international visitors to Gilgit-Baltistan in 2006, but this was a small portion of the 900,000 visitors to Pakistan overall, and intensifying security concerns during 2007 and 2008 have once again severely affected international arrivals. Even the number of domestic visitors has diminished. Still, the potential returns from tourism are believed to be second only to those of the trade sector, and royalties (collected by the federal government) are seven times larger than those collected from mining activities.

**35. Raising and sustaining returns from tourism hinges on improving the reliability of entry and exit, mitigating security concerns associated mainly with developments in the rest of Pakistan, and ensuring good stewardship of a fragile environmental and cultural heritage.** Though the flight from Islamabad is only about 40 minutes (with low fares offered by Pakistan International Airlines), the unpredictable arrival and departure times complicate planning, a consideration that is particularly important for domestic tourists who might wish to visit GB for shorter stays. With tourism assets spread thinly across the tough terrain, arranging appealing packages becomes challenging. There are also concerns about safety and security. The sensitive local traditions and fragile heritage demand tourism models that are based on principles of good stewardship and thoughtful interaction with the physical and social environments. Sound integrative approaches have been implemented to good effect. For example, the renovated Baltit Fort is a key tourism asset, made more attractive and accessible by combining with improvements in the water supply, sanitation, and schooling of the surrounding area. Such experiences in promoting sustainable tourism through enhanced coordination between government agencies, private sector associations, and CSOs should be replicated on a far broader scale.

**36. Deepening and widening the benefits of tourism would require efforts to increase the income earned from international visitors, boost the number of domestic tourists, and seek improvements in other conditions, such as security, in the region.** Encouraging international tourists to raise average daily expenditure depends on the provision of higher quality services and offering a wider range of tourism experiences. Attracting more domestic tourists would require improving the predictability of travel into and out of GB, facilitating the shorter trips that might appeal to those seeking a weekend away. Marketing initiatives based on serious and well-targeted research would be important to positioning the region effectively for the medium term. The proposed area-based pilot project promoting Central Hunza-Nagar as a cultural tourism district is a good start. The nomination of the Hunza Valley as a UNESCO World Heritage Site is another good step, which if accepted, could raise the profile of the region.

**37. Trade through the Gilgit-Baltistan corridor is another promising avenue for private sector led growth.** Owing to its strategic location at the nexus of between Pakistan, China, and the Central Asian Republics, GB serves as a land bridge for transit and trade. While the potential for expanding trade through the regional corridor is substantial, the existing levels of trade remain limited in scale and scope. Only 4 percent (Rs 3.1 billion) of Chinese imports to Pakistan came through the GB corridor in 2007-08, for example. Similarly, Pakistani shipments through GB constituted only 1.5 percent of its exports to China. Furthermore, trade patterns indicate that Pakistan in general and GB as a border region in particular, are not benefiting as much as anticipated from the route in terms of development and greater value addition connected with trade.

**38. The main impediments to realizing more gains from trade include the lack of reliable transport, high freight costs, restrictions at the border (especially on GB's agricultural produce) and insufficient emphasis on trade as a means to spur specialization and local value addition.** The KKH through GB and across the 4,693 meter Kunjerab pass is the only direct road link between Pakistan and China, but the pass is closed for three months of the year due to winter snows. Coupled with closures due to landslides and weather elsewhere on the KKH, this substantially offsets the main benefit of the KKH route—shorter transport times. As noted below in the section on transport, freight costs are elevated by the requirement that Chinese trucks may only carry Chinese goods up to Sost Dry Port, so they return to Kashgar (the next major city in China) empty, and similarly for Pakistani trucks bringing goods from Sost to Kashgar. Not only does this raise freight costs, but it also obstructs the making of markets, where Chinese truckers might use their contacts with distributors in Kashgar to sell Pakistani goods. Despite recent improvements, further investments are needed in the infrastructure at Sost Dry Port in order to ensure swift transit times. These investments could be financed out of revenue from trade facilitation.

Tariffs and non-tariff barriers remain a significant barrier to trade. These impinge especially on the mainly agricultural goods produced in GB, whereby the Chinese requirements on quarantine and other standards for importing fruits and vegetables are difficult to meet, and fresh produce spoils in quarantine before it reaches the Chinese consumer, for example.

**39. Expanding trade opportunities through the Gilgit-Baltistan corridor and enhancing local value addition call for better trade facilitation and an end to policy impediments on transport and exports. Besides following through on the ongoing upgrade of the KKH and communication infrastructure, items that should be high on the policy agenda include:** improving the infrastructure and performance of Sost Dry Port, removing impediments on cross-border transport and logistics (permitting both Chinese and Pakistani trucks to operate on both sides of the border), exploring opportunities for value addition, and exporting local products (such as fruits) by lowering trade barriers and weighing the option of establishing a free trade zone. There is also a need to strengthen import-fed retailing by removing undue taxes on local imports and possibly establishing a border market. Progress in these areas will also contribute to the national level goal of greater regional integration.

### **c. Enhancing Public Service Delivery**

**40. Effective public service delivery is integral to promoting human development and creating the enabling conditions for growth.** Core public services, such as social protection, education, health, and water supply & sanitation are key contributors to human development. In addition to being desirable ends in themselves, they are also important for nurturing a capable workforce for better long-term economic performance. These development priorities are increasingly apparent in GB. Higher household spending on education and significant progress in bridging gaps in educational attainment vis-à-vis the rest of the country, for instance, indicate the premium that the people of the region place on human development and associated services.

**41. Social protection is essential to ensure a minimum desired welfare in GB, where one in every three citizens is either poor or vulnerable to impoverishment.** Providing for a basic minimum living standard is also important from the perspective of encouraging national cohesion and stability in a turbulent neighborhood. The formal social protection regime that has been in place for some time comprises mainly of Zakat and the Pakistan Bait-ul-Maal, reaching only about a third of the total needy population. The support level has also been meager and erratic, contrary to one of the core purposes of such systems, enhancing stability and resilience. The recently introduced Benazir Income Support Program reaches a further 28,000 families in GB, but gaps remain. Without a well functioning SP regime, the poor often resort to counterproductive measures, such as reducing their investment in human capital or liquidating productive assets, such as agricultural land.

**42. Imprecise targeting, unreliability, inadequate support and limited outreach remain some of the endemic concerns in the social protection systems.** Formal social assistance programs, such as Zakat and the Pakistan Bait-ul-Maal, often overlook the neediest of the poor. Preliminary reactions from the communities in GB suggest that even the new BISP, though generally appreciated for its cash support, also faces difficulties with targeting. Unreliability remains another major concern; delays in the payment of Zakat grants in GB vary from 6-12 months, for example. Formal social security—the largest part of social protection in Pakistan—is not available to the majority of people in the region, as they are not formally employed. These issues are the result of weak monitoring and evaluation systems, mounting fiscal constraints, and limited coordination, leading to inadequate targeting and a duplication of effort.

**43. Strengthening the role of SP as a complement to growth and integration hinges on several actions.** These include improving monitoring and fiscal capacity to ensure the effective use of resources,

building on existing pilot schemes to increase insurance coverage for informal workers, and working closely with CSOs to scale up exit programs that raise the likelihood of the poorest escaping from poverty.

**44. Educational attainment has shown rapid progress in recent decades, keeping pace with the rest of Pakistan in many areas.** The adult literacy rate and net primary enrollment rates in GB are almost on a par with the national average and even exceed those of the nation at the secondary level – despite having started from a very low base. Still, together with much of the rest of Pakistan, the region falls well short of reaching the national MDG targets. The gaps in adult literacy and child education are substantial among women, poor households and the communities in lagging districts like Diamer and Astore. These gaps in education, in turn, affect the economic welfare of households, due to close links between education and employment, especially in GB where economic opportunities for low-skilled workers are limited.

**45. Disparate educational achievement along the lines of gender, regions, and economic groups, as well as variable quality in the delivery of education services, remains a major concern.** Access to education seems to be particularly problematic in those districts where there are major geographic obstacles, such as long distances between schools and communities. Barriers erected by cultural and social divisions limit the mobility of students, particularly girls, even when schools are available. Delivering education with adequate quality and equity is hampered by weak financial and technical capacity. Public planning and spending practices do not fully account for the staffing and capacity needs of schools, leading to gaps in the actual delivery, and services are focused primarily on supply-side interventions.

**46. Improving educational outcomes will depend on interventions aimed at raising demand while enhancing the software component of the supply side.** In order to ensure sustained and equitable access to education, initiatives are needed to help mitigate the effects of distance and strengthen the demand for education among poor and underserved communities, including those where social barriers for women are particularly high. The quality of education would be helped by improving the curriculum, building the capacity of teachers, and improving incentives for better teacher performance. The relevance of education could be increased by refocusing education initiatives on ensuring an appropriate skills match. An overriding consideration is to invest in portable assets, enhancing the mobility and well-being of the people of Gilgit-Baltistan over their lifetimes.

**47. Despite strong health gains in some parts of GB, the region generally lags behind the rest of Pakistan, which is itself among the lowest performing countries in terms of the MDGs.** Maternal and child health care are a particular concern, as performance appears to have weakened over the past decade from the levels attained during the Social Action Program. Data on infant and maternal mortality rates from a decade ago show GB lagging well behind the national averages. The performance on various health indicators, however, seems much stronger in areas where CSOs, such as AKHSP, are complementing public services.

**48. The health sector faces several development challenges in GB, including ineffective public spending practices, weak capacity to deliver, poor coordination between health providers, and constraints related to physical accessibility and social barriers.** Government spending on health puts an excessive emphasis on capital spending, to the neglect of operational needs, especially in primary health care. This undermines the quality of care at present and will precipitate mounting problems in the coming years. Capacity is a major concern at all levels, and providers are finding it difficult to train and retain adequate staff to deliver core services, especially lady health workers in more remote areas. Finally, public administration and accountability arrangements are fragmented, with a plethora of providers (many focused on specific diseases or geographic areas), complicating the coordination needed for maximum

impact. Social barriers to women accessing health services and the remoteness of existing facilities add to the challenges.

**49. Health outcomes could be improved by initiatives aimed at enhancing fiscal management, boosting human resources and bettering coordination. Spending in the health sector needs to be reoriented towards recurrent components, in order to ensure that care centers are fully staffed and stocked for effective service delivery.** A human resource strategy that makes working in GB more attractive, both for the Directorate of Health and for CSOs in the field, needs to be developed and implemented as a matter of urgency. Finally, efforts are needed to improve coordination between different providers and increase their accountability.

**50. For much of GB, the water supply & sanitation (WSS) situation is comparatively good, but widening coverage and keeping pace with requirements in growing urban areas remain challenging.** Issues of access to water are usually not acute in GB due to proximity to water sources, and progress has been made in expanding access, with 68 percent of households having piped water – the highest in Pakistan. The generally sparse distribution of people and temperate climatic conditions, including very cold winters, also lessens the sanitation burden on the environment and reduces the risks of health hazards like contamination of drinking water or disease outbreaks. However, given that the source of most water is glacial melt, availability falls dramatically during winter, and residents, especially women, walk great distances to fetch water. While GB has high rates of access to piped water, this is the main source of improved water supply (most of the rest of Pakistan sources water from motorized or hand pumps), and overall, about 38 percent of households in GB were without access to improved drinking water in 2004-05, compared to 15 percent in Pakistan as a whole. Regarding sanitation, only 37 percent of households in GB have toilet facilities. Levels of access to both water and sanitation vary widely across the region.

**51. The achievement of WSS goals faces challenges pertaining to high unit costs, weak spending practices, and overall fiscal constraints.** Providing access to improved water sources and sanitation is especially costly in GB, because outside of towns, the dispersion of the population hampers scale economies. The institutional arrangements for service provision are fragmented, and public spending tends to favor building new schemes, to the neglect of maintenance or quality control in existing projects. As a result, services in many areas are lacking and the infrastructure degrades prematurely. Finally, major investments are needed if WSS is to keep up with growing demands in urban areas, but fiscal resources are sharply constrained.

**52. Improving information systems, bettering spending practices, and increasing coordination between the public sector and other actors is crucial to addressing the ongoing challenges in WSS.** The general dearth of information is a major concern that undermines the ability of stakeholders to plan, coordinate and monitor service provision—more data needs to be collected as a matter of urgency. Meaningful improvements in the quality and reliability of existing services are feasible if spending priorities could be shifted towards operations and maintenance, and cost recovery could be strengthened. Finally, there is scope for greater coordination between the government and other actors to share financial and technical resources.

#### **d. Improving Infrastructure Services**

**53. The provision of essential economic infrastructure, such as irrigation, energy and transport, is important to stimulating private sector led growth, creating employment, and facilitating access to core social services, including education and health.** The construction of the KKH and the ensuing socioeconomic impacts, including the growth in local retailing, the commercialization of agriculture and the increase in education and employment-related mobility, are a testament to the multiplicity of benefits

that accrue with public investment in essential infrastructure. Similar ripple effects can be anticipated from improvements in the energy sector, for example.

**54. Irrigation infrastructure is central to the livelihoods of people in GB, where irrigated agriculture is the mainstay for the majority of inhabitants.** The territory plays a critical role in the overall hydrology of Pakistan, with large glaciers and seasonal snow cover representing significant natural storage and accounting for over 30 percent of the water in the Indus Basin Irrigation System. Hence, the effective management of water resources in general (including clarifying riparian water rights), and the irrigation system in particular, is central to the development prospects of the region and the rest of Pakistan. Ground water is limited, and stream flows from snow and glacier-melt provide the major source of water. The extent of the existing irrigation infrastructure is not known (the most recent data is from 1990). However, partial data suggest that about two-thirds of the irrigated area is served by open channels fed by snow and glacier melt waters. There is significant temporal and spatial variation in the availability of water. Springs that provide more stable flows are few. Surface irrigation, covering 20 percent of cultivable area, is the largest system of irrigation practiced in GB.

**55. Inadequate public-sector investment in irrigation systems and their maintenance remains a major concern.** Public spending in the sector is generally considered insufficient, especially in maintenance and other efforts to improve operational efficiency. Given the fast-growing population and the intensification of water use, more water resources need to be diverted for land development, and new technologies - for instance, conveying water through pipes instead of open channels - need to be considered. There is a long history of participatory development and management in irrigation, and this approach has often proven more sustainable than irrigation schemes constructed by public-sector programs. The involvement of the AKRSP over the last two decades has further strengthened the process by organizing water-user communities. These institutional innovations need to be put to wider use.

**56. Enhancing returns from irrigation depends on improved planning and investment in increasing water supply and conservation.** Concerted efforts will be needed by all stakeholders to ensure that irrigation and water management contribute as much as possible to the development of GB. To this end, several steps are recommended. Water management could be enhanced by preparing an integrated water resource management (IWRM) policy and strengthening related institutions. The availability of water could be augmented through operational improvements, managing demand (including user fees), building storage capacity, ensuring sound environmental practices, and resolving conflicts between communities related to land and water rights, which at present are impeding water development initiatives. Finally, the return to investment in water resources could be raised by adopting newer technologies that integrate irrigation schemes with water for domestic use or mini-hydroelectric projects in those areas where it is feasible and where user fees could be introduced.

**57. The energy sector in GB has tremendous potential to boost economic and social development at both the district and the national levels.** GB is blessed with huge hydroelectric potential, and increasing power generation could serve as an important lever for economic growth, locally and in the rest of Pakistan, which is experiencing major shortages of power. At present, most of this hydroelectric power is untapped, and access to electricity within Gilgit-Baltistan is also limited. About half of the population of GB has access to electricity, well below the national average of 70 percent. Besides hampering economic activity, limited access to electricity prevents the use of household electric appliances that are important to reducing people's workload and improving their well-being.

**58. The high costs of energy development and transmission, along with regulatory issues, hamper progress towards reaching the region's true potential.** While the unique geography confers on GB great potential for clean energy generation, it also creates disincentives because long distances and rugged



terrain raise the costs of evacuating additional electricity to load centers in the rest of Pakistan. For example, the cost of connecting GB to the national grid has been estimated at 4-5 times the total GB budget. The unsettled legal and constitutional status of GB poses further challenges, impeding private and foreign investment, creating institutional and policy bottlenecks, and undermining the transfer of much-needed technical and managerial expertise into the region.

**59. The development of the electricity sector hinges on progress in the regulatory and legal environment and requires increased investment in generation, transmission and distribution capacity.** Governance needs to be improved by reviewing the institutional capacity and functions of the Department of Water and Power, as well as developing a regulatory framework that clearly defines the roles of the public and private sectors, and specifies the rules for investment. Ultimately, the extent to which the development of hydropower resources benefits the people of GB will depend on the determination of riparian water rights, and this issue warrants greater focus now, in order to position GB as best possible going forward. Broadening electrification hinges on enhancing cost recovery and making improvements that lower technical losses. Finally, a comprehensive business plan (with time-bound actions) needs to be prepared that outlines expanding infrastructure development, increasing both revenue and capital expenditure, lowering transmission losses, and enhancing energy efficiency and conservation.

**60. Good transport links are central to GB's economic and social integration with the outside world.** Remoteness and physical inaccessibility have constrained development in these parts for centuries, and the completion of the KKH and the initiation of regular aviation services to Gilgit and Skardu have proved transformative in both economic and social terms. While these investments have been instrumental in breaking the spatial trap of the area, enhancing access to basic services and connecting to markets in order to generate economies of scale and harness the potential of agriculture, tourism, trade and minerals, for example, hinges on further improving the existing road network and aviation infrastructure. Road density in GB is one of the lowest in the country, constraining access to transport services. The density and quality of roads also vary significantly within GB. Similarly, the aviation sector remains unreliable (mainly due to visual flight rules through the mountain passes combining with variable weather conditions), though some improvements have been witnessed in recent years.

**61. Reliability and adequacy of transport services remain key challenges that are directly linked to disadvantageous geographic factors and weak fiscal and technical capacity of public institutions.** Transport by air and road is regularly disrupted by landslides (like those that happened in January 2010 and created the Attaabad lake, Box 3.1), flash flooding, heavy snowfall, challenging weather conditions and the like. Yet, these connections are a lifeline for remote communities, playing an essential role in enabling access to health and education services. There are critical policy issues that need to be addressed, including the treatment of state-owned transportation services while encouraging greater private sector involvement. Fiscal resources are limited, heightening the need for careful prioritization, timely completion of existing projects, and adequate provision for operations and maintenance. In the aviation sector, infrastructure and regulatory bottlenecks will have to be resolved if air transportation services are to be expanded and the entry of new service providers is to be encouraged.

**62. In order to ensure that the transport sector continues to play a strong role in boosting development in GB (as well as facilitating the national goal of regional integration), improvements are needed in public administration and planning, road maintenance, and aviation services.** Comprehensive master plans for the aviation and road transport sector are needed to help guide investment decisions. The effectiveness of road assets would be enhanced by shifting more funds to maintenance. In order to expand the availability of transport services, more private sector participation is needed, by easing present restrictions that reserve routes for the Northern Areas Transportation Company and block the participation of private companies. Similarly, enhancing the reliability and reach of

aviation services requires upgrading the airport infrastructure in Gilgit and removing regulatory barriers to starting direct international flight services in both Gilgit and Skardu, essential for boosting international tourism.

## **Following Through on Policy Options**

**63. With factors exogenous to GB duly noted, implementing the proposed sectoral policy options will depend in large measure on progress with needed cross-cutting initiatives in the areas of strengthening public administration, leveraging the capacity of CSOs, getting the most out of public resources, and sustaining the attention of all stakeholders.** Public sector capacity is a major constraint for many of the policy options noted above, and substantial effort is needed to nurture governance institutions and realize the opportunities provided by ESGO. It is also imperative to sustain and build on the existing social capital and efforts of CSOs, in order to synergize efforts and ensure maximal development impact. Meeting the growing aspirations of the people of GB will require budgetary resources, which can come either from reallocations within the existing budget envelop, improvements in budget execution that yield efficiency gains and cost savings, or additional resources from the GoP. Finally, prospects in GB will be helped by seeking a steady engagement by all stakeholders, including private sector actors, CSOs, the GoP, and (through the GoP) donors.

**64. Strengthening the capacity of public administration and governance institutions and furthering local accountability is crucial to deliver on the expanding mandate of the public sector in GoGB.** Many existing government departments lack the required quantity and quality of human resources, while others proposed in ESGO and the GBER would need intensive start-up support and resources. Developing formal training programs for existing staff, pursuing merit-based hiring of public servants, and finding ways to incentivize the tenure of public servants coming from provinces in the rest of Pakistan will be important to filling capacity gaps in the GoGB. This also applies to the local government level (including emerging municipal governments), if they are to deliver quality public services, improve land use planning, and ensure that growing towns and cities are nice places to live. The capacity of legislators also needs to be enhanced through technical support, enabling the GBLA to play its full role as envisaged in ESGO in the areas of planning, prioritization, budget and local taxation. Finally, raising local accountability requires efforts at various levels, including making key institutions (such as the Auditor General) accountable to the GBLA and promoting the general public's access to information, such as official statistics.

**65. The presence of substantial social capital along with an active network of CSOs offers important opportunities for raising development effectiveness.** It provides a readily available platform to service providers and policy makers seeking to strengthen the utilization of public services, for instance, by increasing awareness among communities about crucial services such as education and health. It presents a chance to enhance the responsiveness of government to clients through their increased participation in the planning and monitoring of development projects. It helps the government overcome its capacity constraints and partner with active CSOs in the delivery of key public services (especially health, education, and social protection) in order to increase their coverage. It is also worth noting that these arrangements do not mean a mere division of labor between government and CSO providers, but a relationship in which the comparative advantage of each actor is exploited for better synergies and efficiency.

**66. Implementing policy options that entail substantial spending will be challenging in the foreseeable future, highlighting the need for effective use of the existing envelop.** While there is a need to build up a local revenue base (like retaining mineral sector royalties) and establish the underpinnings for greater autonomous revenues going forward (such as establishing a favorable regime

for potential future hydropower revenues), in the near-term, expenditure management will continue to determine the quality of fiscal management. Given the scarcity of its fiscal resources, and the enormity of its development needs, the GoGB needs to undertake reforms which would improve the effectiveness of public expenditure and would entail some reallocation of funds. For example, the forces of economic geography are inducing increased agglomeration in towns and urban areas (both within GB and beyond), suggesting that public spending should favor investment in portable assets like education and health, which will position the people of GB better to take advantage of income earning opportunities. In designing these reforms, the GoGB can learn from the experience of other governments within and outside Pakistan.

**67. Expenditure efficiency can be enhanced by moving from a single-year to a multi-year budgetary horizon, and from an input to an output focused budget.** The federal government is already implementing a phased expansion of its Medium-Term Budget Framework (MTBF), which is expected to involve all of the federal government starting 2009/10, and GB could also be included. The overall objective of these budget reforms is to improve the quality and sustainability of government service provision in the light of declared regional and sectoral priorities (the key benefits of such reforms are elaborated in Annex 10). On the ADP side, the effectiveness of capital expenditure can be further improved by: (a) increasing the participation of beneficiaries, (b) reducing financing demands on the ADP so that resources can be concentrated in areas where there is no alternative to government provision, (c) rationalizing the portfolio of projects in the ADP so as to improve its strategic focus and reduce the throw-forward of project commitments, (d) adopting a program framework to public investment, and (e) strengthening program monitoring and evaluation to help ensure good outcomes. The move towards greater autonomy in GB is a challenge for the limited capacity of GB, but also presents an opportunity to redesign budgetary procedures not only to conform better to the local conditions but also to accord with international best practices. Enhancing the effectiveness of resource use will be central to achieving many of the objectives at the sectoral level outlined below.

**68. Some policy initiatives are only feasible through additional funding from the GoP, potentially financed by external development partners.** These include the mega-hydropower projects (such as the Bunji and Diamer-Bhasha dams), the plan to connect GB to the national grid (also establishing the needed infrastructure to evacuate the power once the projects come on-line), or widening and improving the KKH. Each of these initiatives has impacts that are anticipated to be national in scope, whose expenses are many multiples of the total annual GB budget. The GoP has had some success in securing the needed financing – the feasibility studies being prepared for the hydropower projects, and the improvements on the KKH currently underway are being financed by China. The engagement of development partners could also be sought to provide technical assistance and budget support. TA initiatives could contribute usefully to institutional capacity building, as well as help identify and analyze specific policy options. Financial assistance in the form of budget support would avoid adding directly to the inventory of investment projects under implementation, and could be used both to accelerate the completion of some of the existing projects and to facilitate a shift in spending towards recurrent expenditures.

**69. Sustaining the attention of policy makers and seeking a steady engagement from various stakeholders (GoP, private sector, CSOs and donors) is key to creating economic opportunities and elevating living standards both in GB as well as in the rest of Pakistan.** The economic prospects of GB and Pakistan are interlinked. GB needs a sustained flow of resources in order to avoid stop-and-go investment and maintain the living standard of local people. But GB's geographic endowments, including its location on the trade route to China and its abundance of water resources, also give the region an important role in furthering Pakistan's economic development and addressing issues surrounding water and energy. Realizing this potential and harnessing it to deepen the transformation in the region hinges upon the focus and follow through with resources and action from various stakeholders.

**70. Progress along these lines would give GB good prospects of keeping pace with the rest of the country (despite unfavorable odds) and help close gaps persisting in lagging areas.** GB could become a leading area if general circumstances improve (security gets better enabling an expansion in tourism, for example), and planned mega projects are implemented sooner rather than later. Even if these latter two aspects are some ways off in the future, public policy initiatives now can help position GB to benefit as much as possible from favorable turns that may lie ahead.

Top 15 Policy Options		
	For Immediate Action	For Pursuit Over the Medium-term
<b>Theme 1:</b>	<b>Agriculture, Livestock and Forestry</b> - <i>Enhancing the performance of the farm sector and strengthening the management of forests.</i>	
	Scale-up adaptive research and extension services (mainly in horticulture and livestock).	Improve marketing and processing with a focus on value chains; enhance livestock productivity through breed and feed programs.
<b>Theme 2:</b>	<b>Minerals</b> - <i>Ensuring the effective management of the mineral sector.</i>	
	Implement NMP recommendations, including establishing licensing and exploration divisions, and a safety & environment inspectorate.	Update the mining concession rules of 2003 to legalize small and artisanal gemstone mining and facilitate private sector investment.
<b>Theme 3:</b>	<b>Tourism</b> - <i>Increasing marketing and improving access for domestic and foreign tourists.</i>	
	Develop marketing “brands” for GB and the different valleys, starting by enhancing the website and the hotel grading system.	Improve access by making Skardu an international airport and upgrading Gilgit and Skardu airports to enable instrumental landing.
<b>Theme 4:</b>	<b>Trade</b> - <i>Boosting local exports and value addition.</i>	
	Develop a trade and investment policy, and prepare a feasibility study for the establishment of industrial units.	Establish free trade zones and special economic zones.
<b>Theme 5:</b>	<b>Social Protection</b> - <i>Increasing the effectiveness of SP programs.</i>	
	Institutionalize social protection within the GoGB by establishing a focal agency for policy, strategy, and implementation.	Develop systems to identify the beneficiaries for social protection through a multi-stakeholder process.
<b>Theme 6:</b>	<b>Education</b> - <i>Raising quality and expanding access, especially for girls.</i>	
	Upgrade one girls' and one boys' school in each district for premier services, with boarding to give access to pupils from rural areas.	In towns with several co-ed primary schools, convert one into an all girls school, upgraded to the middle and high school level.
<b>Theme 7:</b>	<b>Health</b> - <i>Addressing urgent human resource needs, helping to ensure effective utilization of facilities and good quality of care.</i>	
	Fill key vacant positions for doctors, nurses and LHVs by offering more attractive compensation.	Develop a human resource strategy that emphasizes training and incentives to improve retention (in collaboration with CSOs).
<b>Theme 8:</b>	<b>WSS</b> - <i>Ensuring effective management of the sector with better data, monitoring and evaluation, and institutional structures.</i>	
	Create a separate directorate for the WSS in the GoGB for strategic planning, coordination and policy implementation.	Prepare a strategy to improve data, assess WSS needs in the context of the MDGs, and enhance coordination.
<b>Theme 9:</b>	<b>Irrigation</b> - <i>Bolstering participatory planning and building institutions for the better stewardship of water resources.</i>	
	Establish an irrigation and water management department, and institutionalize coordination.	Implement initiatives identified in feasibility studies, including arranging needed financing and exploring cost recovery options.
<b>Theme 10:</b>	<b>Electricity</b> - <i>Strengthening the governance of the power sector and accelerating investment.</i>	
	Enhance the enforcement of revenue collection, including by facilitating the clearance of arrears and outsourcing collections.	Create the business environment and infrastructure (including a regional power grid) needed to spur investment in generation.
<b>Theme 11:</b>	<b>Transport</b> - <i>Improving planning and administrative practices.</i>	
	Develop a master plan of roads and aviation for the next ten years, including clarifying rights of way for essential services.	Boost the technical, managerial and financial skills of staff, and incentivize the retention of trained professionals.
<b>Theme 12:</b>	<b>Cross-cutting 1 - Administration</b> - <i>Enhancing public administration and other key governance arrangements.</i>	
	Build institutional capacity within the GoGB and GBLA, enabling them to play fully their roles as envisaged by the ESGO2009.	Increase accountability by rendering more government functions accountable to the GBLA, increasing access to information, and decentralizing more administrative powers to the local level.
<b>Theme 13:</b>	<b>Cross-cutting 2 - Fiscal</b> - <i>Improving public expenditure management.</i>	
	Reorient expenditure towards the 'software' side of public service provision, O&M, and completing existing projects.	Strengthen budget processes by moving to multi-year budgeting and implementing procurement and financial management reforms.
<b>Theme 14:</b>	<b>Cross-cutting 3 - CSOs</b> - <i>Building on existing social capital and encouraging the continued strong engagement of CSOs.</i>	
	Improve the coordination of service delivery in those areas where CSOs are complementing the efforts of the public sector.	Ensure that social capital is sustained by creating opportunities for engagement at the core of development activities.
<b>Theme 15:</b>	<b>Cross-cutting 4 - Sustained Engagement</b> - <i>Raising the profile of GB in various forums.</i>	
	Continue to promote GB to private investors through various forums.	Set up a multi-stakeholder development forum in GB, and seek the engagement of donors as in other parts of Pakistan.

# 1 Introduction

1.1 Gilgit-Baltistan (GB) has made substantial development progress over the past 20-30 years, in many ways prevailing over major obstacles posed by its tough geography and complicated administrative arrangements, as well as the challenges associated with a difficult wider context.<sup>5</sup> This is manifest in elements of education, health, and water supply & sanitation, for example, where many people of the region enjoy equal or even better status than is prevalent in the rest of Pakistan. Yet, largely due to geographic isolation, dispersion of the small population, harsh terrain, and unresolved constitutional status, among other factors, many development indicators in GB continue to lag. In addition, development progress has been uneven, and the lives of many GB inhabitants are little different from those of their forbears. Overcoming the odds to widen and sustain strong development performance will hinge on following through on key policy options and meeting additional resource needs.

1.2 The objective of this report is to contribute to the ongoing debate among stakeholders about how best to foster growth and further the development aspirations of the people of GB.<sup>6</sup> This at a time when GB is receiving a heightened level of attention due to the recent Empowerment and Self-Governance Order approved in September 2009, the local elections held in November which were for the first time contested by the major political parties (newly elected officials took office in January 2010), and the efforts to formulate a development strategy for the geopolitically important territory. The report is not a development strategy in itself, but aims to provide useful inputs to these wider efforts, in a context where the information base is thin.

1.3 As such, the intended audience includes the recently elected local representatives, the officials of the Government of Gilgit-Baltistan (GoGB), the authorities in the Ministry of Kashmir Affairs and Gilgit-Baltistan (KAGB), the development partners and civil society organizations (CSOs) active in GB, representatives of the private sector, and other stakeholders. Indeed, it is hoped that the report will help catalyze more engagement from all stakeholders. The implications of the report's findings in terms of mobilizing support for development in GB include:

- Through the national government, promoting the implementation of reforms that increase local accountability, improve the effectiveness of public spending, and make the business environment more conducive, as well as expediting mega projects, like the Bunji and Diamer-Bhasha dams or the ongoing Karakoram Highway (KKH) widening project.
- From CSOs, seeking continued strong engagement, especially in building and sustaining the social capital essential to undertaking initiatives at the community level.

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<sup>5</sup> An Empowerment and Self-Governance Order issued in September 2009 included a provision to change the name from the Northern Areas to Gilgit-Baltistan.

<sup>6</sup> The report was prepared on the request of the Government of Pakistan (GoP), seeking an effort similar to the collaboration with the governments of Punjab, NWFP, Sindh, and Balochistan, aimed at producing economic reports that outline the economic and social records of the provinces, analyze the constraints to their development, and propose policy actions to increase economic growth, reduce poverty, and improve social outcomes. The initiative was undertaken jointly with the Aga Khan Development Network (AKDN), and the Asian Development Bank (ADB), and was also generously financed in part by the United Kingdom's Department for International Development.

- From development partners, pursuing technical assistance / capacity building and budget support – the former to help counterparts strengthen management and follow-through on a range policy actions, and budget support to avoid adding more investment projects to the long inventory, accelerate the completion of some of the existing projects, and shift spending towards the recurrent category, particularly operations and maintenance (O&M).

1.4 The next chapter documents, as best possible given the limited amount of data available, the development progress of GB to date. Then Chapter 3 notes some of the key development challenges faced by the region, focusing on geography, governance and the wider Pakistan context. These set the stage for the sectoral chapters to follow, starting with Chapter 4, which looks at the prospects for accelerating private sector led growth based on realizing potential in agriculture, mining, tourism and trade. Chapter 5 reviews public service delivery for greater well-being and faster growth, with discussions on social protection, education, health, and water supply & sanitation (WSS). Chapter 6 focuses on effective infrastructure maintenance and investment in the areas of irrigation, energy, and transport, all essential to support growth. Each of the sectoral pieces includes a prioritized set of meaningful steps and actions that would promote progress, separated into those that appear feasible now, and those that will need to wait until circumstances are more favorable sometime in the future. Chapter 7 reviews some of the cross-cutting initiatives that will be needed to follow-through with the policy options proposed at the sectoral level. These initiatives center on: strengthening public administration and governance, leveraging the available social capital and efforts of CSOs, improving the effectiveness of public resource use, and seeking sustained engagement from all stakeholders. The section concludes by suggesting that GB has good prospects of widening the ongoing transformation and enhancing development performance, if key public policy initiatives can be implemented, scarce public resources can be effectively managed, and additional resources can be attracted, especially for the proposed mega hydropower projects. The outlook would brighten considerably if the difficulties in the wider context abate and Pakistan as a whole returns to a strong development trajectory.

## 2 Overall Development Performance to Date – Some Impressive Gains

### 2.1. Introduction

2.1 Weighed against the unfavorable odds posed by its difficult economic and political geography (see Box 2.1 and Annex 5), GB's development performance over the past two decades has been remarkable. GDP was roughly Rs 37 billion (\$600 million) in 2004-05, or about US\$600 per capita.<sup>7</sup> GB accounts for less than 1 percent of Pakistan's economy, but appears to be growing strongly, helped by the gradual commercialization of agriculture, as well as economic diversification outside the farm sector. The adult literacy rate in GB has more than tripled from a meager 15 percent in 1981 to 51 percent in 2005, leading to a full convergence with the rest of Pakistan (which started the period with a much higher literacy rate of 26 percent). GB is ahead in such areas as access to safe drinking water and the nutrition of children.

#### Box 2.1. Geography and History of Gilgit-Baltistan

With a population estimated at 1 million, GB covers 72,496 km<sup>2</sup>, and is about the size of Ireland. It borders Wakhan province of Afghanistan to the north, Xingjian province of China to the northeast, and Indian administered Jammu and Kashmir to the southeast. To the south, GB borders Pakistan administered Azad Jammu and Kashmir. GB is extraordinarily steep and mountainous, housing the convergence of three great mountain ranges: the Himalayas, the Hindu Kush, and the Karakoram mountains. Five out of the world's fourteen peaks exceeding 8,000 meters, including the second highest—K2—are in GB. The territory also contains the largest perennial glacial deposits outside of the polar regions, and GB is sometimes referred to as the 'third pole' of the world. Equally unique is the legal identity and constitutional status of the region, which remains undefined at present, more than 60 years after partition in 1947. At the time of independence, the British government gave control of the region to the Maharaja of Kashmir, despite unresolved boundaries with neighboring areas. The Maharaja's decision to accede to India in October, 1947 sparked local conflict, and efforts to join Pakistan started soon thereafter. Conflict between India and Pakistan ensued, until the first cease fire line was established in 1949 with the help of the UN, which was subsequently re-designated as the Line of Control (LoC) in 1971. The areas controlled by Pakistan were split into Azad Kashmir and Gilgit-Baltistan (previously called the Northern Areas), administered by the federal government through its Ministry of Kashmir Affairs and Gilgit-Baltistan (KAGB). As described in more detail below in the section on public administration, the federal minister for KAGB—a cabinet member chosen from amongst the elected members of the National Assembly from Pakistan's four provinces—chaired the Gilgit-Baltistan Legislative Assembly (GBLA), which is the apex body of locally elected representatives from six districts. The people of GB do not have a vote in the national Parliament, and the GBLA has limited authority. While substantial reforms are being implemented, steps such as granting provincial status to GB and enfranchising its people at the national level are not viewed as feasible by the central government. The position of the GoP is that the territory of Kashmir is disputed and that the future status has to be resolved through a plebiscite as per the United Nation's Resolution 47 that was passed in 1948.

*Source: Dani, AH (2001).*

2.2 Despite clear progress, GB is behind on key national MDG targets, especially those related to child and maternal health (Table 2.1). It is worth noting that there are significant differences between districts within the region and across the gender divide. For example, in adult literacy, where GB has shown remarkable progress vis-à-vis the rest of the country, the differences within the region are startling. The adult literacy rate among men in Gilgit district is about twice as high as in Diamer. The gap between

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<sup>7</sup> This rough estimate of GDP is derived by grossing up Gilgit-Baltistan's per capita income estimate from PSLM 2004-05 by a factor of 2.36 which is the ratio of GDP per capita to household income per capita in the rest of Pakistan. Formal estimates based on proper national income accounting are unavailable for GB.



the two districts in female literacy is even larger, with women's literacy in Gilgit four times higher than that in Diamer.<sup>8</sup>

**Table 2.1. Current Status on National MDG Targets**

List of National MDG Targets	2015 Target	Pakistan	(Year)	GB	(Year)
Goal 1-a: Poverty head count ratio (%)	13	24	(2005)	25-29	(2005)
Goal 1-b: Malnutrition prevalence (Weight for Age: % of Children <5)	20	38	(2002)	21	(2002)
Goal 2-a: School Enrollment, primary (% net)	100	53	(2005)	51	(2005)
Goal 3-a: Ratio of female to male primary Enrollment	100	85	(2006)	72	(2005)
Goal 3-b: Ratio of female to male Secondary Enrollment	94	74	(2005)	63	(2005)
Goal 4-a: Mortality rate, infant (per 1000 live births)	40	79	(2005)	122	(1999)
Goal 4-b: Mortality rate, under 5(per 1000 live births)	52	99	(2005)		
Goal 5-a: Maternal mortality ratio per 100,000 live births	140	320	(2004)	600	(1999)
Goal 5-b: Births attended by skilled health staff ( % of total)	90	39	(2007)	40	(2005)
Goal 6-a: Tuberculosis prevalence rate per 1000,000 population		329	(2004)	200	(2007)
Goal 7-a: Forest area (% of land Area)		2.5	(2005)	5.2	
Goal 7-b: Access to tap/hand pump water (% of population)	93	34.7	(2005)	61.8	(2005)
Goal 8-a: Unemployment, youth total (% of total labor force ages 15-24)	5.1	7.4	(2005)	8.4	(2005)
Memorandum items:					
Adult literacy rate (% of people aged 15 and above)	35	50	(2006)	50.1	(2005)
Fertility rate, total (births per woman)	2.1	4.1	(2005)	4.9	(2007)

Source: See Annex 6.

2.3 At the very outset, it should be noted that consistent and comparable data are lacking, and that monitoring and evaluation systems need to be strengthened. There are very few statistics from earlier periods, limiting the extent to which the narrative of transformation in GB, apparent from anecdotal evidence, can be fully captured in numbers. The data in Table 2.1 come from divergent sources with varying degrees of accuracy, but give at least some indication of the current status. Analysis of development in GB is hampered by a scarcity of reliable data, but efforts have been made in this report to place whatever data on GB is available in the broader context of Pakistan, especially by using official statistics from PSLMs for the periods 2004-05 and before. Unfortunately, PSLM data from the subsequent rounds (2005-06 and 2007-08) are not available for GB. The following sections make use of whatever data is available to take stock of GB progress to date in terms of economic growth, poverty reduction, and human development.

## 2.2. Growth: Catching Up With the Rest of Pakistan?

2.4 Despite its inherent disadvantages, GB has shown good economic progress over the last decade. Unfortunately, national income accounts data documenting this economic transition are not available. The analysis below is based on income from the PSLMs, combined with income data from the periodic household economic surveys carried out by the Aga Khan Rural Support Program (AKRSP). Although

<sup>8</sup> 1998 Census.

the latter source excludes Diamer district where AKRSP does not operate, it is still useful since the data go back farther to 1991, and it provides a breakdown by district within GB.<sup>9</sup> The PSLM data show that income per capita in GB was about 90 percent of the national average, below Sindh and Punjab, but slightly above Balochistan and NWFP (Figure 2.1). Annual per capita expenditure growth in GB, used as a proxy for income growth, was a robust 6.5 percent between 2001 and 2005, and somewhat faster than the national average of approximately 5.3 percent, helping to narrow the gap in income and expenditure compared with the rest of Pakistan.<sup>10</sup> It should be emphasized that major variations remain across different parts of GB, and per capita income in Gilgit was 35 percent higher than the GB average in 2005, while in Baltistan and Astore it was 13 and 37 percent lower.<sup>11</sup>

**Figure 2.1. GB's Per Capita Income in Perspective**

Per Capita Income 2004-05 (Rs, monthly)		Growth in Per Capita Income (2001/02-2004/05)	
Pakistan	1444	Pakistan	5.3%
Gilgit-Baltistan	1319	Gilgit-Baltistan	6.5%
Punjab	1442	Punjab	4.6%
Sindh	1618	Sindh	7.7%
Balochistan	1307	Balochistan	4.4%
NWFP	1260	NWFP	3.9%

*Source: World Bank Staff Estimates based on PIHS and PSLM data.*

2.5 The economic performance of GB needs to be seen in the context of the geographic and economic peculiarities of the region, and the numerous constraints to growth. The region's rugged terrain, low population density (12 people per square kilometer—30 times lower than that of Punjab) and limited road access, impede development by increasing transport costs, segmenting markets, reducing economies of scale, and raising the unit costs of service delivery (see Section 3.2 below). Given these features, it is not surprising that the region has historically lagged behind the rest of Pakistan. Still, a structural transformation appears to be underway, which is underpinning convergence with the rest of Pakistan over the medium-term.

2.6 Although one of the many trading routes along the Silk Road runs through GB, the locals have relied largely on subsistence farming since the times of old, eking out an existence from a poorly connected mountainous terrain where less than 2 percent of the land is arable. An AKRSP survey suggests that as recently as 2005 the marketed agricultural surplus amounted to only 15 percent of the

<sup>9</sup> It is worth noting that the AKRSP Socioeconomic Survey estimates are un-weighted, thus potentially may have the problem of under or overestimation. AKRSP is currently making significant methodological revisions to make its Household Surveys more consistent with national and international best practices.

<sup>10</sup> Since comparable income data from previous rounds of the PSLM are not available, growth in per adult-equivalent expenditure is used as proxy for income growth. It is worth noting that the AKRSP Socioeconomic Survey 2005 data suggest similar growth rates in per capita income for the same period.

<sup>11</sup> Baltistan includes the districts of Skardu and Ghanche; Gilgit includes the districts of Gilgit and Ghizer.

total farm output, with most farm production geared towards home consumption. However, there has been a gradual shift from subsistence farming to cash crops and fruit production. The production of potatoes—the major cash crop in the region—almost doubled between 2001 and 2006, with increased productivity spurred by the greater use of modern farm inputs and better agronomic practices.<sup>12</sup> Gains were also made in the production of the three commercially grown fruits - apples, cherries, and apricots. The transformation of the farm sector is more pronounced in the accessible parts of the region that are located closer to market towns, and has been driven in large part by the construction of the KKH. Connectivity plays a major role in the level of commercialization (the share of total production that is marketed as surplus) as well as specialization, both of which are essential to raising per capita income (discussed in more detail in Section 4.2 below).

2.7 In addition to the growing commercialization of agriculture, the transformation of the GB economy is also manifest in the rising proportion of household income being drawn from non-farm activities, increasing from 43 percent in 1994 to 63 percent in 2005. Similarly, the enhanced connectivity resulting from the KKH and the improved skills stemming from the introduction of formal education have helped increase the share of non-farm employment from 49 percent of the workforce in 2001 to 66 percent in 2005.<sup>13</sup> This trend is evident across all districts in GB. Services are the biggest source of non-farm employment, accounting for 26.7 of overall employment in 2004/05, followed by construction with 10.5 percent. The share of the manufacturing sector in total employment was negligible at 0.7 percent—the lowest share among all the provinces of Pakistan.<sup>14</sup>

2.8 In 2005, the public sector employed 33 percent of those who work outside of agriculture, of which 42 percent was accounted for by the military alone.<sup>15</sup> This high reliance on public sector jobs coupled with the limited role of the manufacturing sector points to a critical development challenge: ensuring adequate employment generation for growing cohorts of educated youth. The private sector will need to play an increasingly important role in job creation. According to the PSLM 2004-05, GB's 6.6 percent unemployment rate was higher than other provinces in Pakistan, where it ranged from 2.8 to 5.7 percent.<sup>16</sup>

2.9 Catching-up with the leading areas of Pakistan will depend on sustaining robust growth. There is scope for more commercialization of agriculture, but ultimately the process will be limited by physical constraints in terms of accessibility and the challenges of intensifying farming on relatively small terraces dependent on irrigation. This means that growth will need to come from other sources of economic transformation, like the implementation of proposed mega-hydropower projects, the mechanization of mining, the development of tourism, and the expansion of services and production that depend on agglomeration and closer integration with the market nexus.

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<sup>12</sup> Northern Areas Agricultural Statistics 2001 and 2005.

<sup>13</sup> Socioeconomic Survey data (2001 and 2005): The noted areas reflect the primary employment of workers, comprising men and women age 15-64 and excluding those who were currently studying.

<sup>14</sup> PSLM 2004-05

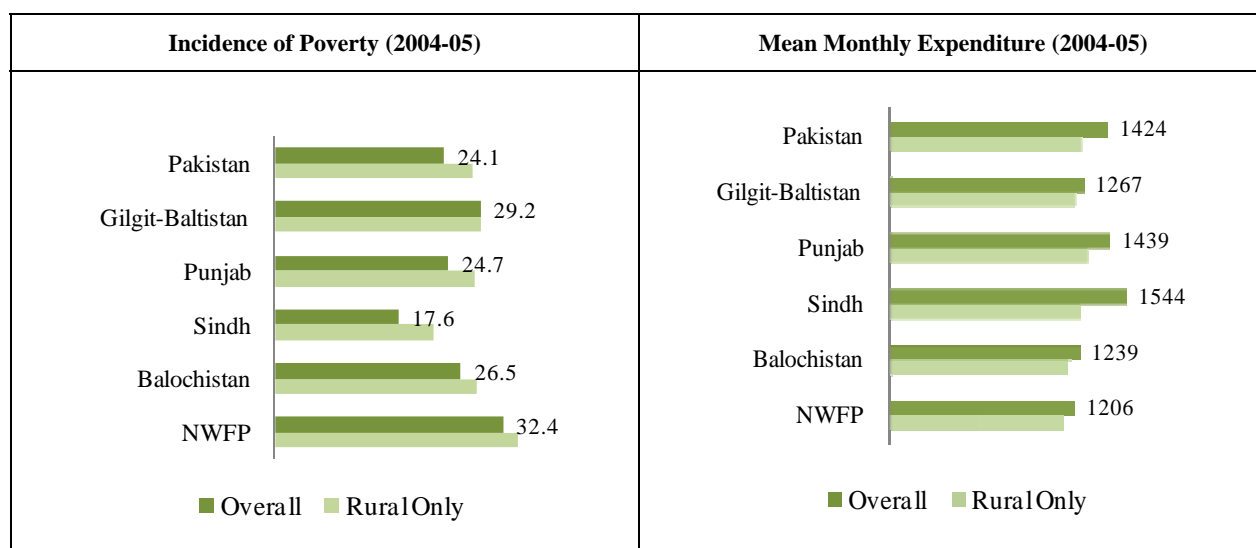
<sup>15</sup> AKRSP Socioeconomic Survey data for 2005: Private employment accounted for 17 percent which mainly came from employment with religious charities and institutions (29 percent) and education sector (24 percent). In business employment, small scale retailing and shop keeping accounted for 50 percent in 2005, up from 48 percent in 2001. In skilled labor, masonry accounted for 33 percent and transport related jobs like drivers accounted for 28 percent.

<sup>16</sup> There is an unusually high unemployment rate among females (13.5 percent) compared to 4.5 percent among men.

## 2.3. The High Incidence of Poverty and Vulnerability Remain Key Concerns

2.10 Mirroring the findings on income noted above, the 2004/05 PSLM indicates that mean monthly consumption in GB is about 90 percent of the national average, which translates into a substantially higher incidence of poverty of about 29 percent in GB, compared with 24 percent for the rest of Pakistan (Figure 2.2).<sup>17</sup> These findings are broadly consistent with estimates of poverty using data from AKRSP's Socioeconomic Survey 2005, though it is not representative of the whole region.<sup>18</sup> It is worth noting that rural areas of GB, comprising 86 percent of the population, are broadly on a par with the national average for rural areas.

**Figure 2.2. Incidence of Poverty and Monthly Expenditure (2004-05)**



Source: Bank staff estimates based on PSLM2004-05.

2.11 The implications of these estimates for inequality are unclear. While the urban – rural divide appears smaller in GB than in other parts of Pakistan, regional disparities are a significant issue within GB.<sup>19</sup> For instance, the incidence of poverty across different districts of GB ranged from about 14 percent in Gilgit to 33 percent in Ganche district in 2005. This places Gilgit closer to Sindh in poverty incidence, while Ganche was as poor as the NWFP.

<sup>17</sup> The official income and expenditure data for GB collected under PIHS/HIES (1998-99 and 2001-01) suffers from limited sample size. Similarly, the data on income and consumption modules of the PSLM (2004-05) for GB is not officially available. Hence, Bank staff estimated household consumption expenditure and poverty based on household demographics and wealth characteristics. See the background paper on the Profiles of Social and Economic Indicators in Northern Area.

<sup>18</sup> AKRSP Socioeconomic Survey data for 2005 suggest poverty levels in GB at 25%. This estimate could be on the lower end of the spectrum as it does not include one of the poorest districts—Diamer—where data is not available. A Food Security Analysis conducted by SDPI-WFP entitled “Study of Food Insecurity in Rural Pakistan 2003”, also referred to as FSA2003, estimated that the poverty level in Diamer was 46.2 percent in 2003, the highest among all districts in Gilgit-Baltistan.

<sup>19</sup> Evidence from FSA 2003 and AKRSP's Socioeconomic Survey data for 2005 suggest that measures of welfare including poverty headcount and assets ownership varies considerably across different districts and income groups within Gilgit-Baltistan.

2.12 Interestingly, the PSLM 2004-05 shows a very high ownership rate of agricultural assets in GB compared to the four provinces (Annex 7). More than 90 percent of households in GB own agricultural lands, while other provinces recorded at most 52 percent land ownership. Similarly, GB has ownership rates of cattle, goats, sheep, and poultry that are at least 30 percent higher than other provinces. However, the benefits of higher land ownership rates in GB are tempered by the smaller size of agricultural holdings. In three districts, more than 70 percent of households were marginal landholders, comprising less than 2.5 acres, and in the remaining two districts, such landholders accounted for at least 40 percent of the total.<sup>20</sup> These findings have been corroborated by more recent studies on the size of cultivated land holdings.<sup>21</sup>

2.13 In contrast to the high ownership rate of agricultural assets, households in GB possessed far fewer consumer durables and electronic equipment (like refrigerators, TVs, fans, and telephones) than those in other provinces (Annex 7). Part of this lower ownership of electrical equipment is the result of less access to electricity in GB compared to other provinces. At the same time, other aspects such as lower demand for cooling equipment due to the temperate climate and limited prior investment in communication infrastructure seems to be playing a strong role. It also appears that the ownership of a means of transportation (bicycle, car, and motorcycle), which is usually a good proxy of household wealth, is far lower in GB compared to other provinces, perhaps in part due to difficult geography and lower road density constraining mobility in any event.<sup>22</sup>

2.14 Despite the broadly comparable performance of GB on several welfare indicators, the fact remains that Pakistan as a whole and GB as a region is still poor and vulnerable. Empirical evidence on indicators of vulnerability is scarce, but participatory assessments conducted at various locations in GB are instructive. Food insecurity, as measured by a composite of food deficit, food absorption and food access, suggests that four out of five districts in GB were “extremely insecure” and the remaining district, Gilgit, was categorized as “very insecure.” This is similar to the degree of food insecurity in rural NWFP and Baluchistan.

2.15 These findings are also confirmed by looking at the household consumption data over time (Figure 2.3).<sup>23</sup> The incidence of poverty increased by nearly 10 percentage points between 1998-99 and 2001-02 in GB, which was followed by a reduction of more than 10 percentage points during the subsequent three year period. One possible explanation for the elevated volatility of welfare in GB is the high reliance of poorer households on incomes from agriculture, which experiences weather shocks and substantial movements in market prices for produce. It is telling that the lowest income quintile of the population in GB drew 59 percent of their incomes from farm sources, while the top income quintile derived only 34 percent of their total incomes from the farm sector.

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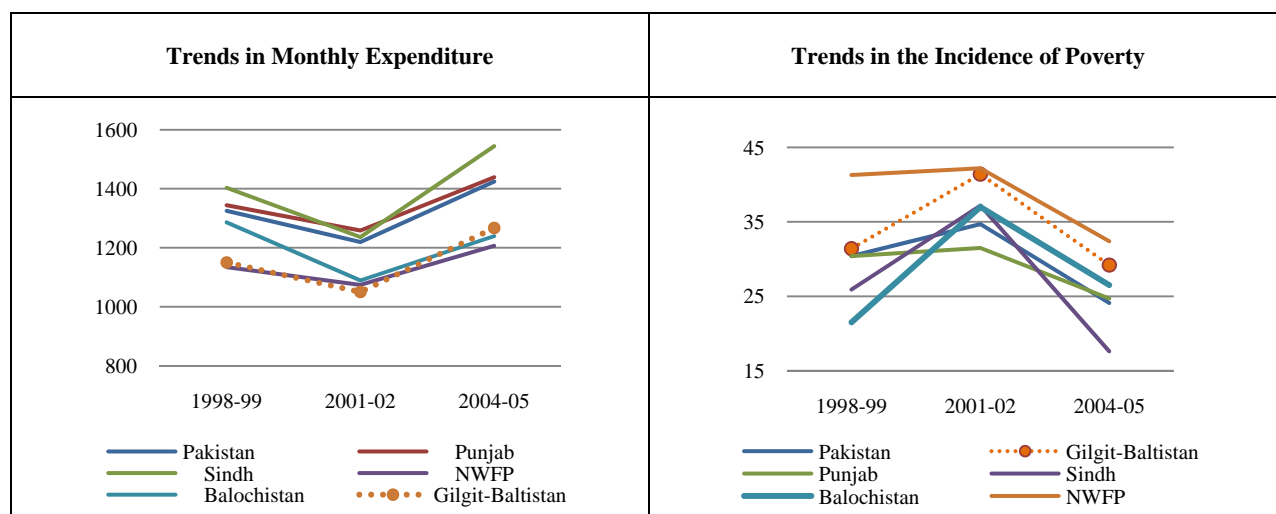
<sup>20</sup> FSA 2003.

<sup>21</sup> For instance, the FSA 2003 and AKRSP (2007): An Assessment of Socioeconomic Trends and Impacts in the Northern Areas and Chitral (1991-2005) also indicated that the mean size of cultivated land across different districts in GB was small, ranging from 1.6 to 1.9 acres.

<sup>22</sup> FSA 2003 noted that Gilgit-Baltistan has one of the lowest road densities in the country.

<sup>23</sup> The consumption and poverty estimates for the first two periods are based on a rather limited sample size. See the background paper on the Profiles of Social and Economic Indicators in Northern Areas. Also note that AKRSP's Socioeconomic Surveys (income based estimates) show a trend decline in poverty between 1998 and 2005. While there are methodological differences in AKRSP's survey and the PIHS/PLSM, these conclusions require further investigation.

**Figure 2.3. Trends in Monthly Consumption and Incidence of Poverty**



Source: Bank staff estimates based on PIHS 1998-99, HIES 2001 & PSLM 2004-05.

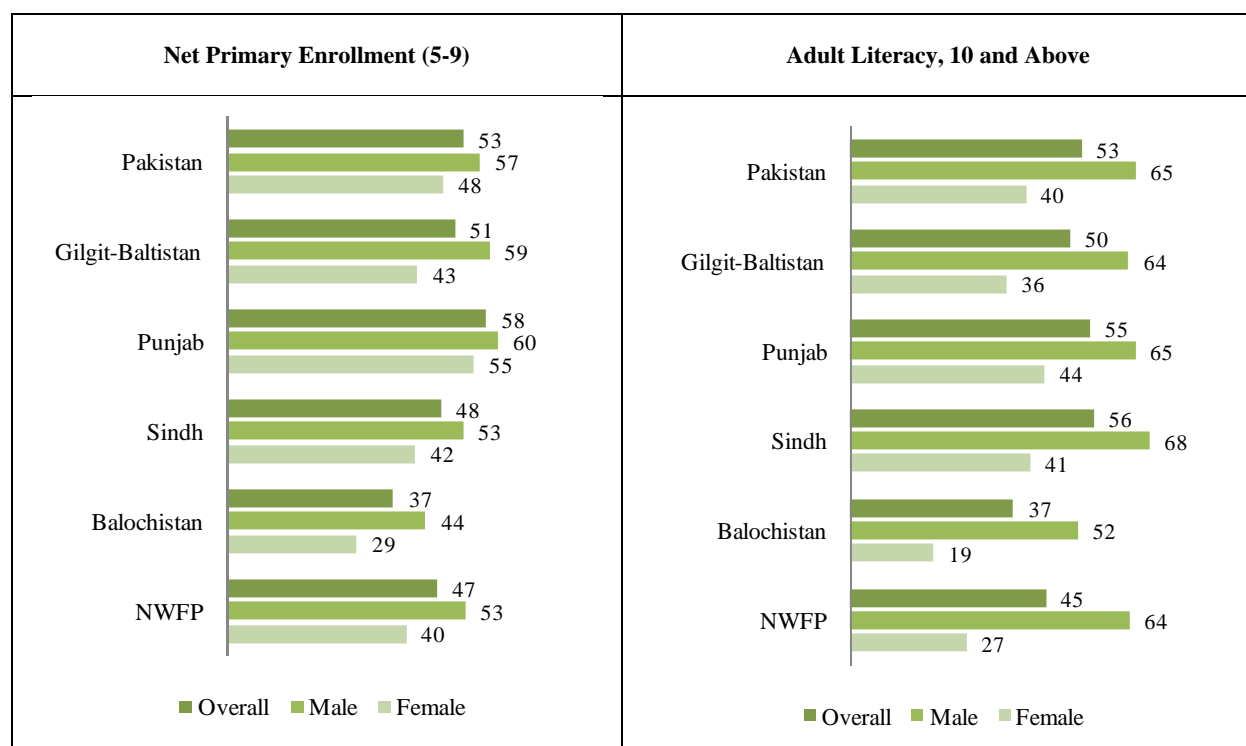
2.16 Finally, anecdotal evidence suggests that there is an element of chronic poverty that is worrying. Some households remain in a state of poverty for extended periods of time, triggered by a shock due to the death of the sole income earning member of a household or loss of landholdings due to a natural disaster, for example. The full extent of the chronically poor in GB is not known. Anecdotal accounts suggest that chronically poor families tend to share similar characteristics such as limited natural resource endowments, a prevalence of physical disabilities, and the absence of young workers in the family.

2.17 Overall, major challenges remain, especially in mitigating the risks faced by the poor, as they move out of subsistence agriculture, possibly undermining traditional social safety nets, before they can be replaced or meaningfully supplemented by formal structures. Still, important gains are being made in improving the well being of the people of GB, which is especially remarkable given the difficult circumstances.

## 2.4. Human Development: Remarkable Progress, Despite Some Lags

2.18 Economic growth and progress on reducing the incidence of poverty has been accompanied by good performance on some key areas of human development. In terms of educational attainment, GB ranks favorably with the rest of Pakistan. GB's net primary enrollment rate and literacy levels are close to those found in the leading provinces of Sindh and Punjab, and substantially higher than in NWFP and Baluchistan (Figure 2.4).

**Figure 2.4. Comparison of Education Indicators (2004-05)**



Source: Staff estimates based on PSLM 2004-05.

2.19 Within GB, educational attainment varies across income groups, gender, and districts. The difference in Enrollment rates between the rich and poor range from 15 percentage points at the secondary level to 25 percentage points at the primary level (Annex 11). Similarly, estimates of adult literacy show that Gilgit district performed better than others, mainly due to higher literacy levels among women.<sup>24</sup> Although recent data for Diamer district are not available, the census data for 1998 suggests that at 8.9 percent, women's literacy in the district was one of the lowest in the country. It is encouraging to note that the estimated female literacy rate for GB as a whole was 35.6 percent in 2004-05, closer to the leading parts of Pakistan and well ahead of those found in Baluchistan and the NWFP. Similarly, the net primary Enrollment rate among girls in GB was ahead of all other provinces except Punjab.

2.20 In terms of health outcomes, the picture is harder to discern, in part because the results are mixed, and in part because recent numbers are unavailable on some key elements (Table 2.2). GB has performed well in reducing the neo-natal mortality rate to 40 per 1000 infants, compared to the national average of 54. Acute malnutrition and protein calorie deficiencies in GB were among the lowest in Pakistan, though stunting levels were slightly higher than those found in Punjab. Similarly, the incidence of diarrhea over the past 30 days among children under age 5 in GB was the lowest among all provinces—5 percent compared to a range of 12 to 16 percent experienced in other provinces. This is largely due to the relatively high availability of piped water, at 62 percent of households, compared to a low of 29 percent in Punjab.

<sup>24</sup> Background paper on Education for the Northern Areas Economic Report and AKRSP Socioeconomic Survey data for 2005.

**Table 2.2. Key Health and Population Indicators**

Key Indicators	Gilgit-Baltistan	Pakistan
Infant Mortality Rate	<u>122</u>	78
Neo-natal Mortality Rate	40	54
Maternal Mortality	<u>600</u>	297
Total Fertility Rate	4.9	4.1
Contraceptive Prevalence Rate	23	30
Acute Malnutrition (Wasting)	[2.2]	[11]
Protein Calorie Malnutrition (Underweight)	[21]	[42]
Access to Piped Water	{62}	{35}

Source: *PIHS 1998-99*; *PDHS 2006/07*; *NIPS 2007*, Bhutta, ZA (Unpublished data) 2008; [National Nutrition Survey 2000-02]; {PSLM 2004-05}.

2.21 In contrast, access to health services and regional disparities remain a concern. For example, the availability of hospital beds was the lowest in Ghanche district at 2 per 10,000 people, followed by Ghizer and Diamer, with 6 beds per 10,000 people. The national average is 9 beds per 10,000 people.

2.22 In addition, it is unclear where things stand regarding infant and maternal mortality, since the most recent figures for GB stem from 1998-99. The infant mortality rate (IMR) was estimated at 122 per thousand live births for 1998-99, compared with 86 for the rest of Pakistan (which fell to 78 in a more recent survey in 2006-07). However, there are some positive signs from more recent data based on the specific catchment areas where Aga Khan Health Services Pakistan (AKHSP) has been complementing public service delivery with additional efforts to improve maternal and child health care, showing the IMR at a low of 33.<sup>25</sup> Data on maternal mortality rates (MMR) are similarly problematic, and were estimated at 600 in 1998-99 in GB, compared to the national average of 297 in 2006-07. Making progress on reducing the IMR and MMR is especially challenging in remote mountain contexts with limited access to institutionalized delivery by trained professionals, since there is little advance warning of disaster, and then it is too late. More effort is needed to monitor these key health outcomes in order to help inform policy and calibrate the appropriate emphasis on supply or demand side measures.

## 2.5. Concluding Comments

2.23 The progress to date is encouraging, especially when considering the difficult initial conditions faced by the region. While empirical details and benchmarks from earlier periods are lacking, available data and anecdotal accounts of transformation point towards improvement and convergence with the economic and social indicators of the rest of the country. In some cases, particularly in the social sectors, GB is performing well, despite its current gaps in economic wellbeing.

<sup>25</sup> FSA 2003 also found that the infant mortality rate in two districts of the GB was quite high – more than 90.



## **3 Development in GB is Against the Odds - The Challenges**

### **3.1. Introduction**

3.1 Tough geography and weak institutional capacity (including tight fiscal constraints), as well as the difficult wider Pakistan context, combine to pose major obstacles to development in GB. Given these unfavorable circumstances, the good progress described above is quite remarkable. Still, these factors continue to shape the development trajectory of GB, and this chapter recognizes some of the key challenges up-front, setting the stage for the sectoral investigations to follow and helping to define the scope of what policy options are both feasible and meaningful in GB. Initiatives will need to surmount these obstacles if the broadly defined goals are to be met of ensuring the equitable development of all regions, establishing a just and sustainable economic system for reducing poverty, and achieving the MDGs.<sup>26</sup>

### **3.2. Geographic Isolation and Division**

3.2 Physical geography has a powerful influence on the economic development process of GB. The extreme mountain terrain at the intersection of the Karakoram, the Hindu Kush and the Himalayan Mountains includes some of the steepest gradients in the world (over a horizontal distance of only 11.5 kilometers, Mount Rakaposhi soars 5,800 meters to an altitude of 7788 meters) and five of the world's fourteen 8,000 meter peaks. Weather systems are rarely able to bring rain over these mountains, and with negligible amounts of precipitation for agriculture, the sector relies on irrigation from glacier fed rivers tumbling through the tight valleys. One of the ancient silk routes linking Pakistan and China passes through GB, much of which has been expanded into the KKH. Although the strategic importance of the territory has brought substantial benefits in terms of heightened attention and resources from the GoP, the location generally appears to be disadvantageous. To the north, GB borders vast and sparsely populated areas of China. The KKH is the only connecting road, and it is closed for at least 3 months a year due to snow, as well as other periodic blockages from landslides (as occurred in January 2010 to form the Attaabad Lake, Box 3.1). To the northwest lies the inaccessible Wakhan Corridor of Afghanistan. To the west GB abuts the Malakand division of NWFP where there was open conflict during the first half of 2009. To the south the line of control across to India is effectively closed.

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<sup>26</sup> Broad goals for GB are articulated most recently in: the 2003 Northern Areas Strategy for Sustainable Development (NASSD), Pakistan's Medium Term Development Framework (MTDF) 2005-10. The authorities are also preparing a parallel framework for GB covering 2010-15. Progress on the implementation of the NASSD has been mixed, and is reviewed in Annex 2 based on extensive consultations with GoGB counterparts, CSOs and other stakeholders at the end of 2008 (the key developments since then have centered on the governance changes reviewed in some detail below). The GB MTDF 2005-10 under preparation proposes prioritizing efforts in three key areas: investing in promising sectors such as minerals, tourism, and trade, building human resources through education, and developing physical infrastructure, including in hydropower and communications. While the MTDF recognizes GB's high dependence on agriculture and the need for greater productivity, it is notable that agriculture is ruled out as a priority sector due to the limits imposed by extreme climatic conditions and the lack of arable land.

### Box 3.1. Geography in Motion – The Attaabad Landslide in January 2010

The full force of dynamic geography has again been displayed in the disastrous landslide in Attaabad, Hunza, on January 4, 2010, killing 19 people. The massive landslide into the Hunza River valley created a huge blockage, more than a kilometer long, effectively damming the Hunza River, and forming a lake with water levels that grew by more than a meter per day, flooding villages, farmland, and homes, upstream. As of mid-2010, the lake stretched more than 28 kilometers, with a maximum depth of 370 feet. In addition to the tragic loss of life noted above, the landslide and resulting inundation has destroyed or damaged some 370 houses, 3 schools, 3 hotels, 3 furniture making workshops, and 130 stores, as well as displacing more than 18,000 people, either due to damages sustained upstream, or as a precautionary measure downstream, given the risk of dam rupture and flash flooding. In addition, 18 kilometers of the KKH and 5 bridges have been submerged or buried in the landslide, cutting off several communities (about 25,000 people) and the trade route by land to China. Water levels breached the dam at the end of May, and within two weeks, water inflows and outflows were about even, though the onset of the summer glacier melt and the acceleration of the spillway erosion are likely to see both increase in the coming period, with highly uncertain consequences. Several large boulders appear to be controlling water flows, but the dam remains a major hazard and is at risk of bursting, which could send a wall of water racing through the narrow valleys downstream. In addition to the dangers this poses to the people living downstream, such dramatic events may trigger more landslides and lake formations, as well as damaging all manner of assets.

The GoP acted swiftly to mitigate the effects and risks associated with the landslide, engaging the Pakistan Army's Frontier Works Organization (FWO) and the Chinese contractors responsible for the maintenance of KKH to excavate a spillway through the landslide dam using heaving earth moving equipment. With the help of CSOs, the GoP also provided food, medicines, and other supplies, as well as bringing in boats to ease the flow of goods and people across the lake (pictured below). Affected communities will need to remain vigilant of further flooding risks, even if outflows appear to stabilize in the near term. A cell phone triggered Early Warning System has been set up, and with the evacuation of low-lying areas downstream, the risk to lives posed by outburst flooding is somewhat mitigated, though the economic losses are no doubt large and long-lasting. A more complete damage and needs assessment will only be feasible once the hydrology of the area has returned to normalcy.

The landslide and resultant lake underscores several key features of GB and its development prospects. The impact of geography is acutely felt in the daily lives of the people in the region and is a major source of uncertainty and vulnerability, accentuating the challenges of isolation and difficult access noted above. In addition to the direct effects of the disaster on the livelihoods of affected communities, the disruption of the KKH ruptures the region's already limited connections to people, ideas and markets outside, hindering income earning opportunities and lowering the returns to investment. It also increases the unit cost of providing key public services like education, and makes it very difficult, if not impossible to avail of more sophisticated services, such as emergency medical assistance. While steady progress has been made in building links, the disaster highlights the high cost and difficulty of sustaining these connections, which are critical for the development of the region and the well-being of the local populace.



Boat on Attaabad lake



Aerial View of Shishkat and Gulmit

3.3 The role of geography in economic development has been the subject of a growing body of research. For example, applying the binding constraints to growth approach in GB suggests that poor geography has led to low returns to economic activity (Annex 8).<sup>27</sup> The World Bank's *World Development Report 2009 – Reshaping Economic Geography* emphasizes that development will be unbalanced, but that it can still be inclusive.<sup>28</sup> The report notes that a striking feature of uneven growth is its spatial concentration; cities, coastal areas, and connected regions grow faster while rural and isolated regions tend to trail (Box 3.2). A conventional response to this unevenness is to implement policies aimed at spreading out economic activity to lagging regions. More often than not, however, policy responses should focus on economic integration—bringing leading and lagging regions closer in economic terms. These features are important determinants of development in GB.

### Box 3.2. Spatial dimensions—density, distance, and division

To describe the geographic transformations that accompany development, World Development Report 2009 - Reshaping Economic Geography (WDR 2009) introduces three spatial dimensions—density, distance, and division.

These dimensions describe development in real space. The terms are easy metaphors, but they also have a technical interpretation. *Density* generally signifies the intensity of economic activity on a unit of land. *Distance* signifies the costs of getting to places with economic density. While density and distance relate closely to human and physical geography, *division* refers more to sociopolitical geography. Religion, ethnicity, and language are among the main attributes that lead to divisions between places.

Density, distance, and division are best illustrated by market access, an indicator of economic opportunity for a location that tells the size of the potential markets in its vicinity, and the ease of reaching them. Market access across geographic scales determines where economic activity can thrive and thus where firms will locate and populations will grow. Using this concept of market access, the three dimensions are defined as follows:

- **Density** indicates the size of economic output or total purchasing power per unit of surface area—for example, a square kilometer. It is highest in large cities where economic activity is concentrated and much lower in rural neighborhoods.
- **Distance** measures the ease of reaching markets. It determines access to opportunity. Areas far from economically dense centers in a country are more likely to lag.
- **Division** arises from barriers to economic interactions created by differences in currencies, customs, and languages, which restrict market access.

The difference between distance and division is that distance modulates access to economic opportunity in a more continuous way—a distance decay. Division, by contrast, presents discrete barriers to access and economic integration. It can be seen as increasing economic distance or travel time for a unit of physical (or Euclidian) distance. These definitions are not scientifically exact. When density is used, it means economic density: production per area of land. When any other measure of density, such as the population per square kilometer or the places where more of a nation's poor people live, it is qualified accordingly. Distance can be measured with some precision, but where infrastructure is sparse, straight-line distance is different from road or rail distance. Many other factors, such as the availability and affordability of transport services, determine actual accessibility. Division is associated with international borders, because they usually impede the ease of exchange or travel. But not all divisions imply international borders. Where religious, ethnic and linguistic differences are manifest spatially, there can be divisions within countries.

The WDR 2009 identifies three instruments to address the above noted challenges of economic geography:

- **Institutions** are the appropriate response to addressing the need to induce greater density – especially in promoting the portable assets of education and health.

<sup>27</sup> Hausmann, Rodrik and Velasco (2005): Growth Diagnostics.

<sup>28</sup> The full report is available online at: [www.worldbank.org/wdr2009](http://www.worldbank.org/wdr2009).

- **Infrastructure** is essential to improving access to opportunity.
- **Incentives** are needed to help address divisions across ethnicity, culture, religion, and gender, among others.

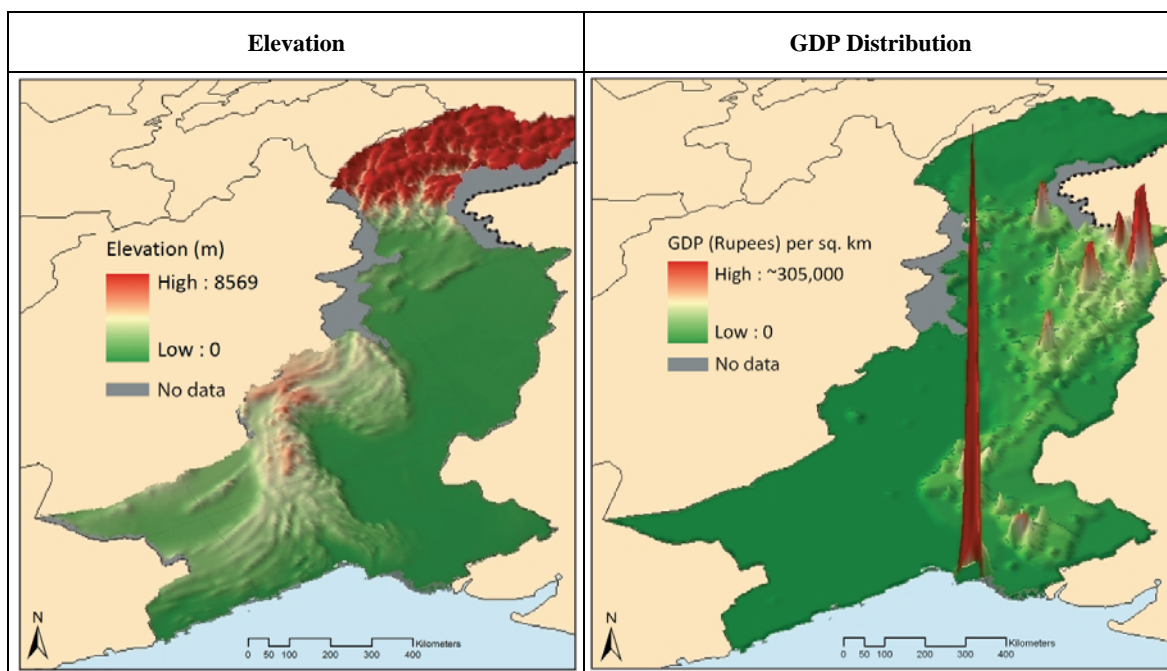
The WDR 2009 argues that these instruments should be applied in descending order. This means that in trying to help lagging regions, policy makers ought to first look to institutions, then infrastructure, and finally incentives, rather than the other way around, which is more commonly observed and has resulted in notable failures of spatial development.

Source: WDR 2009.

## Sparse Population Impedes Income Generation

3.4 GB's population is spread thinly across the territory, with 12 people per square kilometer, compared with 359 in Punjab. The two largest cities of Gilgit and Skardu have less than 100,000 people each, and 86 percent of the population lives in rural areas. This translates into a lack of scale economies, and economic activity tends to be dominated by constant returns to scale production that is not dependent on integration within networks and markets. The two maps in Figure 3.1 illustrate the issue. The map showing the physical elevations, with great peaks in GB, is matched by the map showing the concentration of economic activity, where the mountainous areas of Pakistan, especially GB, appear as flat plains. Most of Pakistan's GDP is generated in Karachi, Lahore and Islamabad, as well as along the corridor linking these major cities.

**Figure 3.1. Topographic Highlands Are Economic Lowlands**



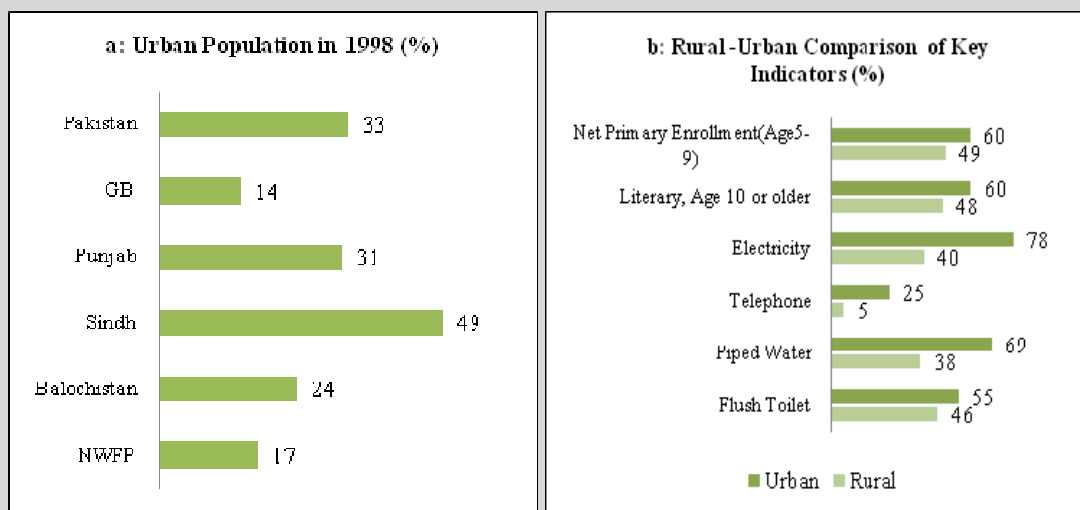
Source: 1998 Census of Pakistan and Bank Staff Estimates based on AKRSP Socioeconomic Survey data for 2005.

3.5 Within GB, income generation is also concentrated, mainly around Gilgit and Skardu. Opportunities to intensify agriculture and agglomerate lands are limited by the physical characteristics of small irrigated terraces and by fragmented ownership patterns. The dispersion of the small population also means that the unit cost of providing services is very high, and access to basic services and socioeconomic outcomes are much better in urban than in rural areas. While urban areas appear to be growing rapidly in GB, the rate of urbanization at present is low (Box 3.3).

### Box 3.3. Urbanization in GB

Gilgit-Baltistan is one of the least urbanized regions in Pakistan, which translates into limited opportunities for economic agglomeration and growth. In 1998, only 14 percent of the total population of GB was residing in urban locations, mainly in few small cities and towns with inadequate urban infrastructure (see Figure below). Still, those who chose to move and could afford to live in the existing modestly urbanized parts of GB experienced better economic and social prospects. The figures below show that the urban population in GB has better access to various basic services and human development indicators. The PSLM 2004-05 data also shows that compared to rural parts of GB, urban areas experienced a significantly lower prevalence of poverty (6.7 versus 17.2 percent). Similarly, other key indicators such as unemployment rate and the incidence of diarrhea among children were also better for the urban areas.

#### *Urbanization and Differential Access to Services*



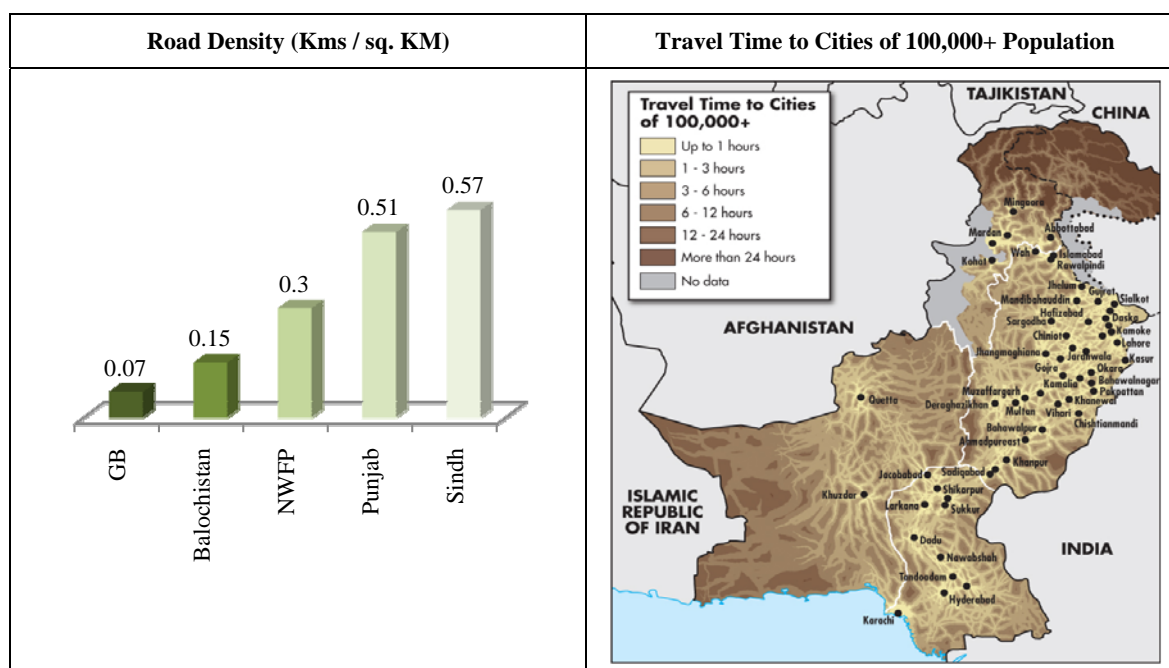
Source: a) 1998 Census of Pakistan; b) PSLM 2004-05.

The relatively better performance of urban parts vis-à-vis rural regions notwithstanding, the level of urbanization and the quality and quantity of services in existing urban parts of GB fall well short of those available in other parts of Pakistan. On the sanitation front, for example, only 55 percent of households in urban GB had flush toilets in 2004-05 compared to 88.5 percent in the rest of urban Pakistan. Urban GB also lagged in terms of access to electricity—78 percent in GB compared to 96.4 percent in the urban Pakistan as a whole. Correspondingly, the institutional capacity in GB to address the issues surrounding urbanization is also inadequate, with modestly financed and ill-equipped municipal committees in the district headquarters overseeing urban service delivery. Going forward, a clear strategy to promote urbanization and upgrade related infrastructure needs to be pursued in order to promote economic growth and better manage the social and environmental consequence of urbanization.

## Large Distances Hamper the Movement of People, Goods and Ideas

3.6 The distance from Islamabad to Gilgit is only about 270 kilometers ‘as the crow flies’, but the routing of aircraft is dependent on visual flight rules through the mountain passes, and cloud cover precipitated the cancellation of 40 percent of the flights between the two cities during 2009 and 2010. The road journey on the KKH is about 580 kilometers, and frequent sharp curves reduce speeds to 50 or 60 kilometers per hour, lengthening the journey to between 12 and 24 hours. Hazardous driving conditions and frequent closures due to landslides and snow add to uncertainty. In the other direction, the Kunjerab Pass on the border with China lies 280 kilometers to the north, and the nearest Chinese city of more than 100,000 people is Kashgar, another 490 kilometers. In general, road density is very low in GB, with travel times of more than 24 hours to reach the nearest sizable city (Figure 3.2). Adding to physical distance, GB is not connected to the national electricity grid or broadband internet, weather impedes transport, regulations block factor mobility, and different languages and cultures slow the movement of information and ideas. All of this is to say that distance is felt strongly in the main towns, and even more acutely in remote areas.

**Figure 3.2. The Challenge of Distance**



Source: Balochistan Economic Report and Bank staff estimates.

3.7 Overcoming distance matters. Connectivity is higher in GB’s two major nodal districts of Gilgit and Skardu, which exhibit higher levels of agricultural commercialization and specialization, greater economic agglomeration in terms of farm produce per square kilometer, and more per capita income (Table 3.1).<sup>29</sup> Overall, the data indicate that a substantial portion of agricultural production

<sup>29</sup> The broad trends in commercialization across high access and medium access hold even when the observations are disaggregated in terms of cropping zones which place a climatic bar on the production choices in farming. Although comprehensive statistics on this second part are not available, anecdotal evidence strongly suggests that Gilgit and Skardu bound traffic is much higher, as they also serve as transport nodes for onward distribution to the interior districts of Ghanche, Ghizer and Astore.



continues to be geared to home consumption, giving much scope for further transforming the farming sector.

**Table 3.1. Access, Commercialization & Specialization**

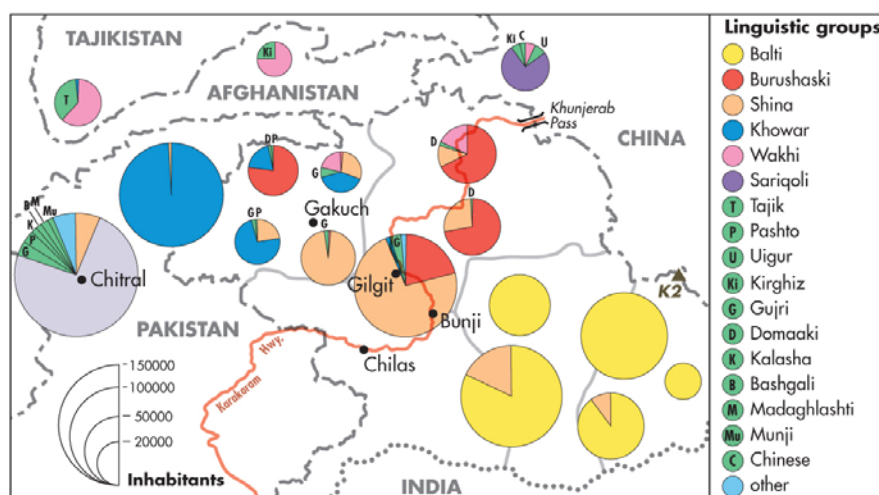
	Average Distance to Nearest Market Town (Km)	Marketed Surplus in Total Farm Produce (%)	Marketed Surplus in total Crops and Fruits Produce (%)	Level of Specialization in Major Crops Score (1= High, 0=Low)	Per Capita Income(Rs)
Medium Access: (Gilgit & Skardu)	15.0	17	32	0.71	29,225
Low Access: (Ghizer, Astore, & Ganche)	28.0	14	21	0.53	17,387
Overall GB:	22.3	15	26	0.60	22,596

Source: Bank Staff Estimates based on National Highway Authority statistics and AKRSP Socioeconomic Survey data for 2005.

## Divisions Weaken Connections

3.8 Division, both internally and across international borders, is an important obstacle to development in GB. While most people speak one of the three main languages of Shina, Balti, and Brushishki, another 11 languages are spoken in GB, different from the several major languages used in the rest of Pakistan, and the official language of English (Figure 3.3).<sup>30</sup> Ethnic / tribal backgrounds are similarly fractionalized, and religious affiliations follow several sects of Islam, fueling occasional sectarian violence. Such divisions impact development adversely in numerous ways, hampering the mobility of people, goods and ideas, or complicating public sector hiring decisions in the GoGB. They also contribute to the variation in socioeconomic outcomes between different districts, with Diamer lagging in many areas, as described above.

**Figure 3.3. Linguistic Diversity in GB and Surrounding Areas**



Source: Kreutzmann, 2005, p. 4.

<sup>30</sup> Manzoon Ali, 2004.

3.9 Divisions along gender lines are also significant within GB. On various measures of wellbeing, including, health, educational attainment, and participation in social and economic life, indicators for women lag those for men. These skewed outcomes undermine productivity and increase dependency. Efforts are underway to address this form of division (Box 3.4), but more initiative is needed.

#### **Box 3.4. Towards Bridging the Gender Gap**

Gender disparity in GB is a key challenge. Mindful of this divide, GoGB and CSOs are working to improve the status and wellbeing of women. In this regard, the recent efforts to enhance women's participation in politics by assigning a 33 percent quota for female representatives in various tiers of local government, and the establishment of a Women's Development Directorate are particularly noteworthy. The Directorate has developed and implemented several initiatives, some in collaboration with CSOs, including: a Self Employment Project for Women (2004-05), implemented in partnership with AKRSP and aimed at sensitizing 7,000 women in business development (of which 2,500 were further trained in business creation and management); a Women's Vocational Training Project 2004-05, implemented through KADO, to develop a cadre of 3,500 computer literate women; and a Doorstep Employment Project (2005-10), which has thus far trained more than 6,000 women in GB in production and marketing.

CSOs continue to play an active role in addressing gender issues by fostering women organizations, devising initiatives to expand access to key services in education and health, and training women in business and leadership. The establishment of "Eve Market" in Skardu is one such example, where AKRSP and local female entrepreneurs worked together to transform a facility comprising 22 shops into an exclusive market for women. This initiative has created new openings for women in a context where female economic and social mobility is very restricted. The market has a beauty parlor, a tea house, garments and jewelry shops, an internet café, and a computing center—all owned and operated by women. The daily sales of each shop range from Rs. 1,000 to Rs 6,000.

Additional initiative is needed in order to mainstream gender across all sectors and ensure that development programs are mindful of gender issues. Several specific actions are outlined below aimed at facilitating better delivery of health and education services to women. It is worth noting that the collection of more data that is disaggregated by gender is essential to understanding key concerns and developing appropriate policy responses to gender issues.

*Source: AKRSP.*

3.10 Interventions are required to enhance the fluidity of labor, goods and ideas, thereby promoting growth. For example, universal access to basic education, even at a higher unit cost in remote areas, will equip people with the skills needed to take advantage of income earning opportunities in other places. When public services cannot be provided effectively in remote areas, migration is motivated by the quest for better access, in addition to higher income earning possibilities. A growing body of empirical evidence on migration in the rest of the world shows that both of these issues are key drivers, with some substitution noted between the two. For example, high levels of migration from Brazil's poorer northeast towards cities had been deemed incomprehensible, as new migrants do not necessarily secure higher real wages. Further study, however, found that migrants are better off following their move, due to the enhanced access to public services thereby attained.<sup>31</sup> Similar patterns are evident in GB, where there is in many cases an incipient pressure towards agglomeration, and policy should seek to remove obstacles and invest in people on the go (Box 3.5).

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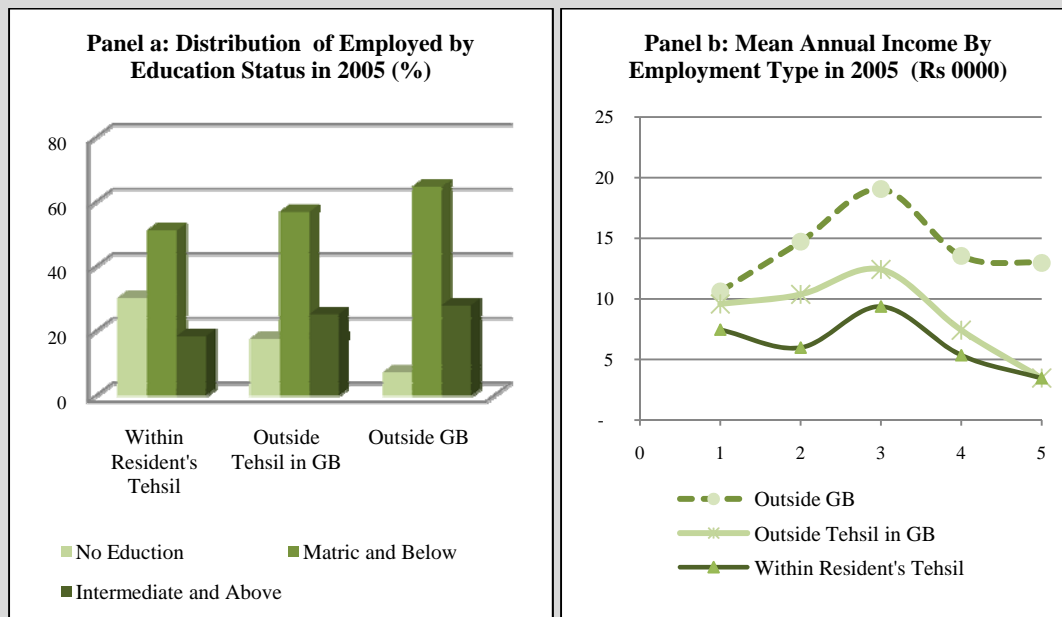
<sup>31</sup> Source: WDR 2009; based on the background paper by Lall, Timmins, and Yu (2008)



### Box 3.5. How Mobile Are the People of Gilgit-Baltistan?

Field studies as well as anecdotal evidence suggest that migration has helped families diversify their livelihoods and reduce the burden on local resources. Investment in portable assets such as education has a positive link with mobility for economic reasons (panel a). Employment outside GB typically earns higher wages, particularly for private sector jobs (panel b). Studies also show that investment in road infrastructure has contributed to employment and education related mobility in GB.

Though strictly comparable statistics on migration for the region are not available, the proximate evidence on men's temporary migration for economic reasons within and from the region points to a strong migratory phenomenon.<sup>32</sup> In 2001, about 24 percent of men age 18 and above were working outside GB. Compare this to the 15 percent migration rate among the men of the same age group across all of rural Pakistan.<sup>33</sup> The share of migrant workers in GB is much higher (38 percent) when those who work outside their home districts but within GB is included. The evidence also points to a gradual increase in outmigration over time. For instance, the share of men working outside GB rose from 24 percent in 2001 to 26 percent by 2005. The growing phenomenon of migration within and from GB is motivated primarily by the limited availability of local employment opportunities and inadequate services, particularly those for higher education. For example, about 7 percent of all students and 22 percent of post-secondary students were studying outside GB in 2001.



Note: Categories in Figure 1 b on the X axis are: 1=Gov. Job; 2=Priv. Job; 3=Business; 4=Skilled Worker; 5=Unskilled Worker

However, outmigration comes with costs for migrants as well as their source communities. Departure of skilled human resources and the weakening and loss of social networks are a concern. In the case of GB, communities also note the loss of voice and a reduction in the scale of development activities due to outmigration of well-off members of the community. Similarly, women experience an increase in their workload and feel less secure when the men

from their household depart. In some cases, the migration of men for employment purposes eventually leads to a breakup of family units. On the migrants' side, among other issues, the limited availability of adequate and

<sup>32</sup> Temporary migration for economic reasons is primarily a male phenomenon. According to survey statistics, only 11 percent of women were engaged in non-farm work, primarily as skilled and unskilled workers (71 percent) within their own village (92 percent).

<sup>33</sup> AKRSP Socioeconomic Survey data (2001 and 2005) and Ghazala (2006): Migration, School Attainment and Child Labor: Evidence from Rural Pakistan. These numbers are not strictly comparable because of differing definitions and methodologies.

affordable housing as well as inadequate public services in some cases appear to be key concerns, particularly when migration entailed moving to growing urban centers within GB.

Regardless, migration is happening. The key challenge is to implement policies that mitigate the costs without undermining its potential benefits. There is a growing recognition among policy makers that voluntary migration driven by economic forces should not to be discouraged, and that policy, if not supportive should at least be neutral. Some ideas for policy consideration include: a) investing in portable assets, such as the technical and educational skills of individuals, enhancing the productive potential of migrants entering labor markets elsewhere; b) strengthening the provision of basic public services across GB to reduce the felt need for migration due to non-economic factors; c) facilitating urbanization in the emerging towns of the region to benefit from local agglomeration and scale economies, especially in services; d) reducing the economic and social vulnerability of migrants' source households and communities by devising customized financial products for remittance based incomes and by improving telecommunication services to facilitate frequent interaction between the migrants and their homes.

*Source: AKRSP Socioeconomic Survey data for 2005.*

3.11 Movement of goods and people across international borders are restricted by procedures and climatic conditions. While customs procedures for goods coming in from China are swift, there are delays and problems with trade in the other direction, which consists mainly of agricultural goods that attract additional safeguards and checks. In addition, the KKH through the Khunjerab pass is closed for three months of the year due to winter weather. The border to the south, across the line of control with India, is closed, blocking several topographically feasible entry points to GB. Connections to Wakhan in Afghanistan are limited to trekking routes, and there are security concerns in parts of neighboring NWFP.

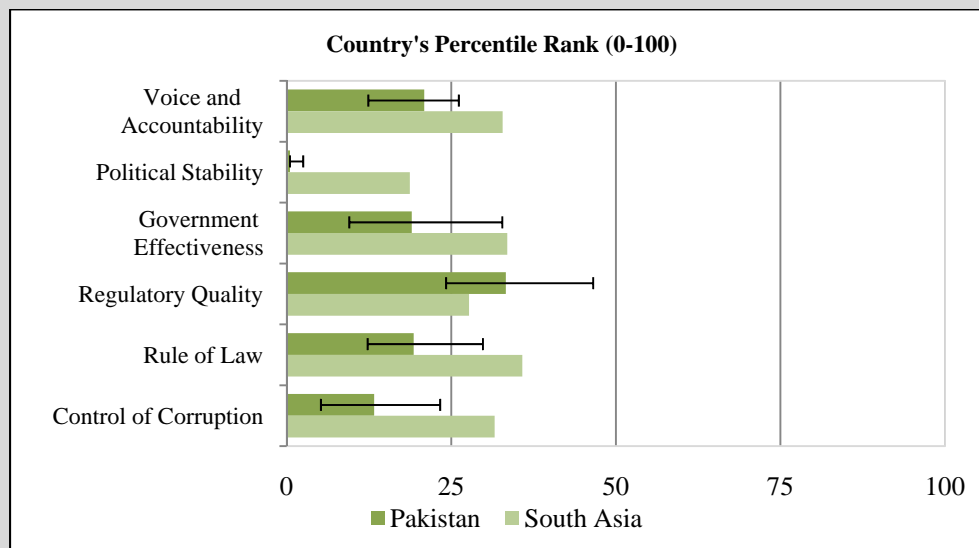
### **3.3. Weak Institutional Capacity and Accountability**

3.12 Another set of development challenges stems from the complicated and fluid governance arrangements in GB. Local structures have historically been quite limited. Several important initiatives aimed at boosting local authority have been launched, starting with the approval in September 2009 of the Empowerment and Self-Governance Order 2009 (ESGO), and followed by the GB Rules of Business and the GB System of Financial Control and Budgeting Rules. Substantial progress has been made in the intervening months, but the fuller impact will hinge on how these measures are implemented and elaborated in the coming years. It is also worth noting that much continues to be determined by the overarching governance in Pakistan at the federal level, including many aspects of the legal code, the systems for public financial management, the mechanisms of public service delivery, and the investment climate (Box 3.6). Virtually all public spending in GB is financed and executed by the federal government, meaning that issues of fiscal devolution do not yet apply (GB representative bodies are seeking a greater role in the process). GB shares many elements of Pakistan's investment climate, although challenges in the areas of corruption, political instability and unreliable electricity, noted as key concerns in the 2007 survey, manifest differently in GB.

### Box 3.6. Pakistan's Governance Context

Survey evidence confirms that Pakistan faces a range of governance challenges. The Worldwide Governance Indicators suggest that with the exception of regulatory quality, Pakistan is below the 25th percentile on key dimensions of governance, and significantly below the South Asia averages (Figure below). In addition, there has been significant deterioration on political stability, government effectiveness and control of corruption in the years leading up to 2009. The trends on other indicators, including voice and accountability, regulatory quality, and rule of law have been more mixed. The investment climate assessments report that the number of firms identifying corruption as a major obstacle to business increased from 40 percent in 2002 to 57 percent in 2007, second only to concerns about reliable electricity.

**Worldwide Governance Indicators: Pakistan and South Asia, 2009**



In general, information on governance in GB is limited. While the surveys used in the assessments noted above are intended to be representative of the whole country, they do not include respondents from within GB per se, and substantial regional variation is to be expected. Still, they give some indication of the governance challenges confronting Pakistan and the people of GB.

*Source: The Worldwide Governance Indicators 2009, World Bank.*

### Public Administration: Seeking Enhanced Accountability

3.13 The structure of the GoGB has a big impact on decision making processes and outcomes. While significant changes are being implemented, GB has been governed directly by the federal government, with local accountability institutions nascent or still to be established. Hence, the people most affected have limited voice, and the capacity to articulate local priorities, formulate policy, and implement initiatives is constrained. This has significant implications for the manner in which public services are delivered, policies are established to foster private sector development, and new initiatives are developed.

3.14 As noted above, the status of GB remains unresolved, with the result that the people of GB do not have democratic representation at the national level, limiting their ability to attract attention to their priorities (notwithstanding the first local elections contested by the major national level political parties in 2009). They do not vote in general elections, they do not have representation in the Parliament, they are not entitled to hold public office in national political bodies, and they do not have the right to take grievances to the Supreme Court. In addition, the Constitution of Pakistan does not apply, including provisions for provincial legislatures, autonomy to appoint civil servants, and the powers to tax and spend.

These institutional features, which are well established in the six other administrative units of the federation (the four provinces, the Federally Administered Tribal Areas (FATA) and Azad Jammu and Kashmir (AJK)), are not materially affected by the recent governance initiatives.

3.15 Still, the ESGO and related efforts herald substantial legislative, executive and judicial reforms, including changing the name from the Northern Areas to Gilgit-Baltistan. The new governance structure is a step towards those of other provinces in Pakistan, and among other aspects, provides for:

- The appointment of a Governor by the President of Pakistan.<sup>34</sup>
- The election of a Chief Minister by the GBLA.
- The establishment of a 15 member GB Council, presided over by the Prime Minister of Pakistan and comprising the Governor, the Chief Minister, six members nominated by the Prime Minister of Pakistan from among members of the National Parliament), and six members to be elected by the GBLA.
- The formation of a Cabinet, presided over by the Chief Minister and comprising six Ministers elected by the GBLA and two advisors chosen by the Chief Minister.
- The establishment of the Gilgit-Baltistan Supreme Appellate Court and a Supreme Judiciary Council.
- The appointment of the Auditor General of Pakistan as the Auditor General of GB by the Governor on the advice of Chairman of the Council
- The appointment of a Chief Election Commissioner by the Chairman of the Council on the advice of the Governor.
- The establishment of a Public Service Commission for GB.
- The creation of a GB Consolidated Fund.
- The extension of Fundamental Rights to the people of Gilgit-Baltistan.

3.16 Hence, local government bodies have been established and are evolving to play an increasingly important role. The locally representative executive branch is expanding its authority through the Cabinet, with each of the six Ministers assigned a portfolio assembled from among the 15 line departments, to ensure that the wishes of the people are adequately reflected in policy initiatives. The Secretaries are the civil service head of each of the departments, recently expanded in number to separate functions and ensure adequate focus. The GBLA is the locally elected body, composed of 33 members – 24 members elected directly, six seats reserved for women (chosen by the elected members from each of GB's six Districts, and three seats reserved for technocrats (also elected by members of the GBLA).

3.17 The legislative powers of the GBLA are limited. Although the number of areas where the GBLA may propose legislation has risen substantially in recent years, from 47 to 80 items, in practice, few bills originating in the GBLA have been passed into law. While the GBLA is empowered to pass the annual budget and Annual Development Program (ADP), it must be approved by the Governor, and virtually all resources come from the federal government (as elaborated below), constraining the financial powers of the GBLA. There are also six District Councils, six Municipal committees and 102 Union Councils in GB, who facilitate local participation in the planning and execution of development work through local councils.

3.18 In support of the implementation of the ESGO, the GoP prepared a Report on Transition to Self-Governance and Development of Gilgit Baltistan, which puts forward a roadmap of governance reforms and economic development in GB (Box 3.7). This was followed by the notification of the Gilgit-

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<sup>34</sup> Previously, the head of the Northern Areas Administration was the Chairman, a position held by the Minister of Kashmir Affairs and Northern Areas.

Baltistan Rules of Business, which specify the reorganization and creation of new departments (for example, separating Tourism, Sports and Culture from Industries, Minerals and Commerce, or creating a Revenue department) along with the creation of new special institutions (Public Service Commission and Election Commission). The new rules also re-orient authority and reporting channels in line with ESGO, such as enabling the Chief Minister to constitute new departments or vary the composition and number of departments in consultation with the Governor, or detailing the rules on Cabinet procedures and the submission of cases to the Governor and Chief Minister.

### **Box 3.7. Transition Plan 2009**

Key elements in the transition plan include provisions for:

- The appointment of an interim Governor for GB (currently the Minister of KAGB).\*
- The holding of elections to constitute a new Gilgit-Baltistan Legislative Assembly and select the Chief Minister.
- The establishment of the Gilgit-Baltistan Council.
- The establishment of a Supreme Appellate Court and the appointment of an Advocate General.
- The creation of a Gilgit-Baltistan Consolidated Fund with the GBLA given the authority to pass the budget.
- The appointment of the Auditor General of Pakistan as the Auditor General of GB, and the posting of an Accountant General to GB.
- The ear-marking of additional funds amounting to Rs 5 billion to finance the transition.
- The enhancement of administrative capacity: (a) in the immediate term, by training local officers at the National School of Public Policy (NSPP) and bolstering police personnel (including setting up a KKH Security Force), and (b) over the medium-term, improving incentives with the setting up of a Gilgit-Baltistan Public Service Commission and continuing the federal quota for GB officials in the Federal Services.
- The outline of a medium- to long-term economic development strategy covering infrastructure, energy, communication, and other high potential economic sectors.

\* It is worth noting that there is no indication that the Governor should be from GB, and the length of the interim period also is not specified.

3.19 The process for enhancing local authority is making important advances, but the chains of accountability from the client to the service provider remain long, and the capacity for effective regulation continues to be limited. The sectoral discussions will need to be mindful of these circumstances both in seeking to understand the development process, as well as in deriving policy implications. For instance, the apparent bias for capital over recurrent spending may partly reflect the greater scope for corruption when implementing investment projects. Another example is that until accountability arrangements are enhanced, CSOs and informal networks (social capital) will need to continue playing a central role in amplifying the voices of the local populace, as well as in the delivering some basic services.

### **Fiscal and Financial Management: Mobilizing and Using Resources Well**

3.20 Public spending and sound financial management are potent policy tools to ensure effective provision of public services and infrastructure, which are essential for growth and development more generally. But as noted, GB's institutional structures are less independent and developed than those found in Pakistan's provinces, constraining options for responding to development challenges. Following ESGO, the Gilgit-Baltistan System of Financial Control and Budgeting Rules, 2009, was promulgated. Previously, the federal Minister for KAGB exercised full budgeting powers, including serving as the Principal Accounting Officer and as Chairman of the administration. The new system gives the GBLA the authority to debate and pass the proposed budget, which must then be brought before the Governor for

final signature, and makes the Chief Secretary the Principal Accounting Officer for GB. While these changes may have a deeper impact in the future, especially as the GBLA develops the capacity to play fully its role in the process, at present the federal Minister for KAGB is the interim Governor, and the Chief Secretary is appointed by the Governor on the Advice of the Chief Minister. Capacity building in GB will benefit from being linked with similar efforts at the national level.

3.21 These institutional features notwithstanding, the core issue is that GB's budget depends completely on the federal government. GB has a very limited revenue base with little tax actually collected within its jurisdiction. Moreover, current financial rules stipulate that any tax collected is deposited into the Federal Consolidated Fund (though this may change with the broader use of the GB Consolidated Fund and possible revenue raising powers connected with selling hydropower to the rest of Pakistan or retaining mineral royalties). The Council and GoGB have no revenue of their own and rely solely on grants from the federal budget to meet expenditures. GB's administrative budget is provided through two separate grants, one for the KAGB Division and one for the GoGB. While there are consultations with GB counterparts, the level of these grants is largely determined by the Budget Wing of the federal Ministry of Finance (MoF) based on the overall resource position of the federal government and competing demands from other spending units. Fiscal adversities, such as the present macroeconomic difficulties affecting Pakistan at the national level, can affect the availability of federal funds and correspondingly the implementation of GB's budget.

3.22 Furthermore, the budgetary grants are compartmentalized into use type, recurrent and development grants, limiting flexibility. While the provision of the recurrent budget under two separate grants can be justified on the basis of its unique administrative structure, providing the development budget under tied grants creates rigidities and fragmentation in budget-making, as funds from one type of grant cannot be shifted to the other's use (except through a cumbersome process). This mode of funding various components of the budget under tied grants creates disincentives for budgetary savings. For example, if for any reason the GoGB is unable to utilize its entire development budget, attempts would still be made to spend as much of the allocation as possible, as budgetary saving from the development budget cannot be shifted to the recurrent head, even if this is where these funds are more urgently needed or could be better utilized.

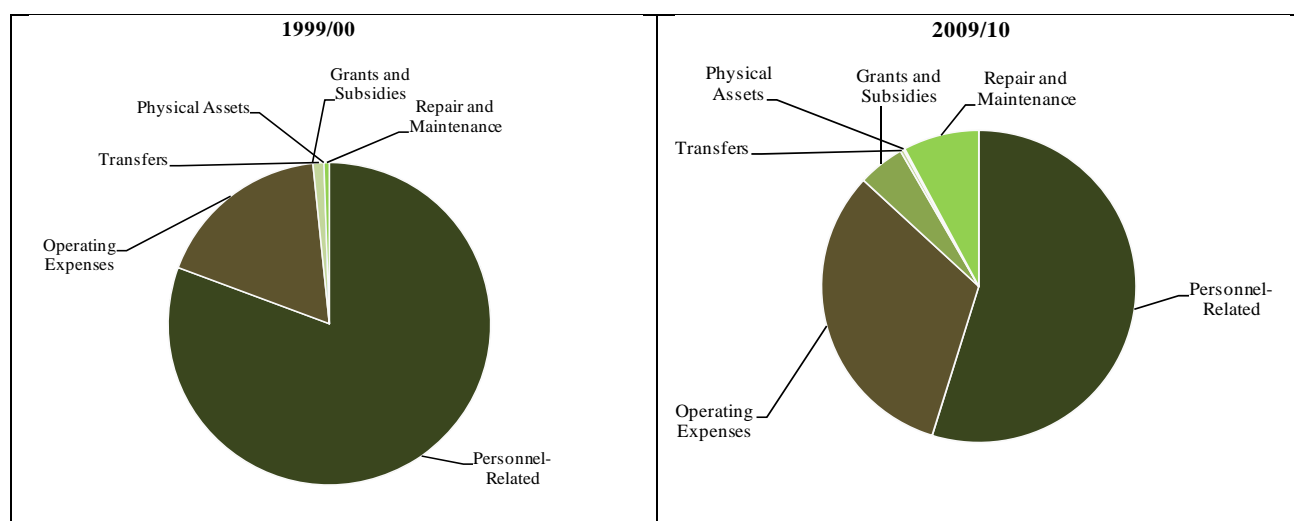
3.23 Budget-making in GB is a rather simplified exercise of allocating available funds under each grant according to its functional and economic priorities. Similarly, fiscal management is little more than expenditure management. Indeed, one concern about the new GB System of Financial Control and Budgeting Rules 2009 is that it appears to be drawn from similar approaches used elsewhere in Pakistan, but which are now being reformed. In particular, the set-up is concerned mainly with ensuring that expenditures are executed according to the rules and limited to assigned budgets, rather than targeting effectiveness.

3.24 Looking at the patterns of public expenditure over the past few years (budget Tables are presented in Annex 9), several key issues stand out, including under-spending on operations and maintenance, weak links between the capital and recurrent budgets, a large 'throw-forward,' and limited fiscal space. While these problems are also manifest across Pakistan, both at the Federal and the Provincial levels, the authorities will want to move forward with a process that progressively addresses these issues, improving the effectiveness of spending.

### ***Insufficient Spending on Operations and Maintenance***

3.25 Over much of the past decade, a very large proportion of GB's recurrent grant has been spent on personnel-related salaries and benefits, leaving grossly inadequate allocations for repair and maintenance expenditure. About 75 percent of the recurrent budget was allocated for the pay and allowances of government employees. Operating expenses, such as procurement of commodities and services, constituted the other important expenditure component (Figure 3.4). Up until the 2007/08 budget, these two categories together accounted for over 90 percent of recurrent expenditure, while spending on repair and maintenance made up only about 1 percent. By any standards, this was inadequate to meet the essential needs of rapidly expanding local infrastructure and other physical assets in GB. For instance, maintaining the road network in such mountainous terrain requires an inordinate amount of maintenance expenditure, and allocations at present are insufficient. The implied build-erode-rebuild development philosophy goes against core principles of sound public finance, which indicates that much higher economic returns are feasible when infrastructure is adequately maintained. The authorities began to shift this apportionment in 2008/09 and 2009/10, when increased funding was allocated to repair and maintenance, but this will need to be implemented consistently and sustained for some time to restore an appropriate balance.

**Figure 3.4. Economic Composition of Recurrent Expenditure**



Source: Ministry of Kashmir Affairs and Gilgit-Baltistan, Government of Pakistan.

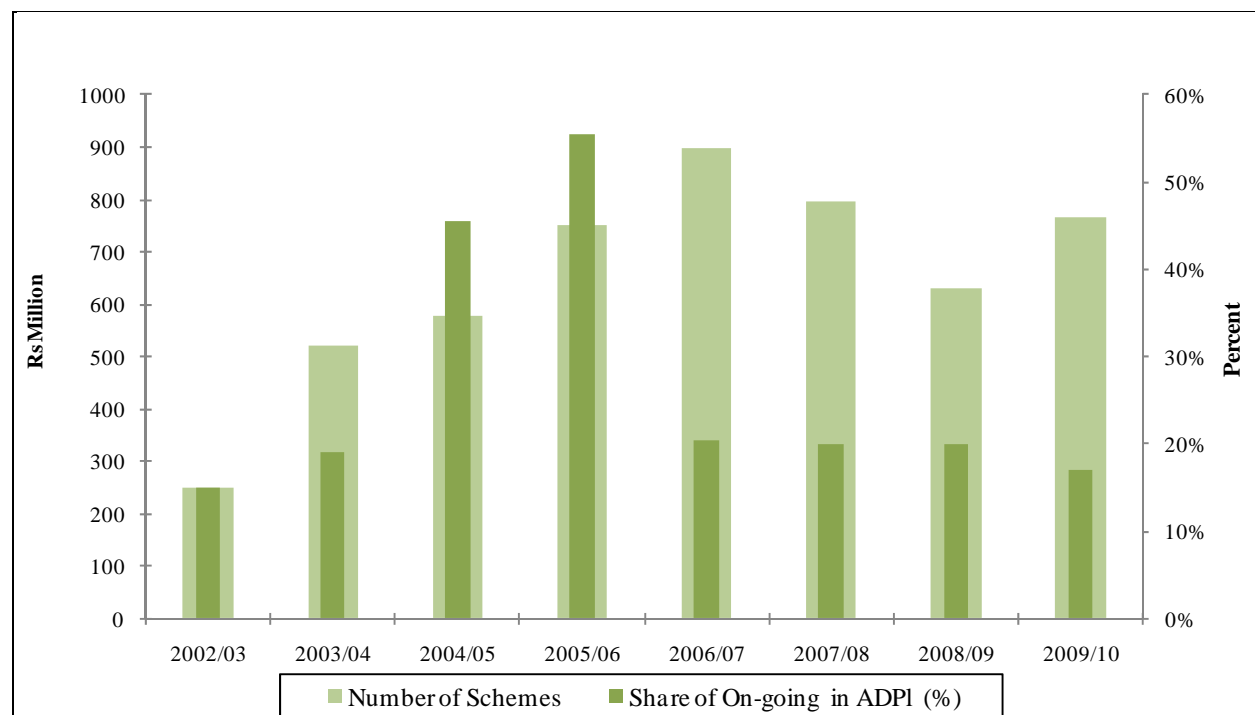
### ***A Disconnect between the Recurrent and the Development Budgets***

3.26 Although some of the same officials participate in both processes, there is no effective mechanism to ensure that recurrent and development expenditures complement each other within a coherent and affordable sector strategy to provide public services and local infrastructure in the most cost effective manner. As development expenditure is generally perceived to be of superior quality to recurrent expenditure, there is persistent pressure to reduce recurrent spending to make room for additional development funds. What this inherent bias against recurrent expenditure ignores is that higher development outlays have in-built recurrent expenditure implications for the future. As noted in the discussion on health below, the construction of new basic health units will require major increases in recurrent spending on health workers, if they are to be effective in improving health outcomes. The expansion of physical infrastructure and public services networks requires higher O&M expenditure for effective service delivery. Hence, the "pro-development" bias exacerbates underfunding of recurrent expenditure, resulting in a faster erosion of public infrastructure and a poor quality of public services.

### *Spending Shifted to New Projects Leaving ongoing Projects Underfunded and Delayed*

3.27 An increase in the size of the public investment portfolio has also led to the development budget being spread very thinly across projects, adversely affecting the completion rate of development schemes. As more and more new schemes were brought into the portfolio (Figure 3.5), their share in the development budget increased from only 15 percent in 2002/03 to 55 percent in 2005/06, before coming down again to 17 percent in 2009/10. The relative under-spending for ongoing schemes led to completion delays as well as associated cost over-runs, eroding the development impact of the investment program.

**Figure 3.5. New Schemes - Number and Share of ADP**



Source: Ministry of Kashmir Affairs and Gilgit-Baltistan, Government of Pakistan.

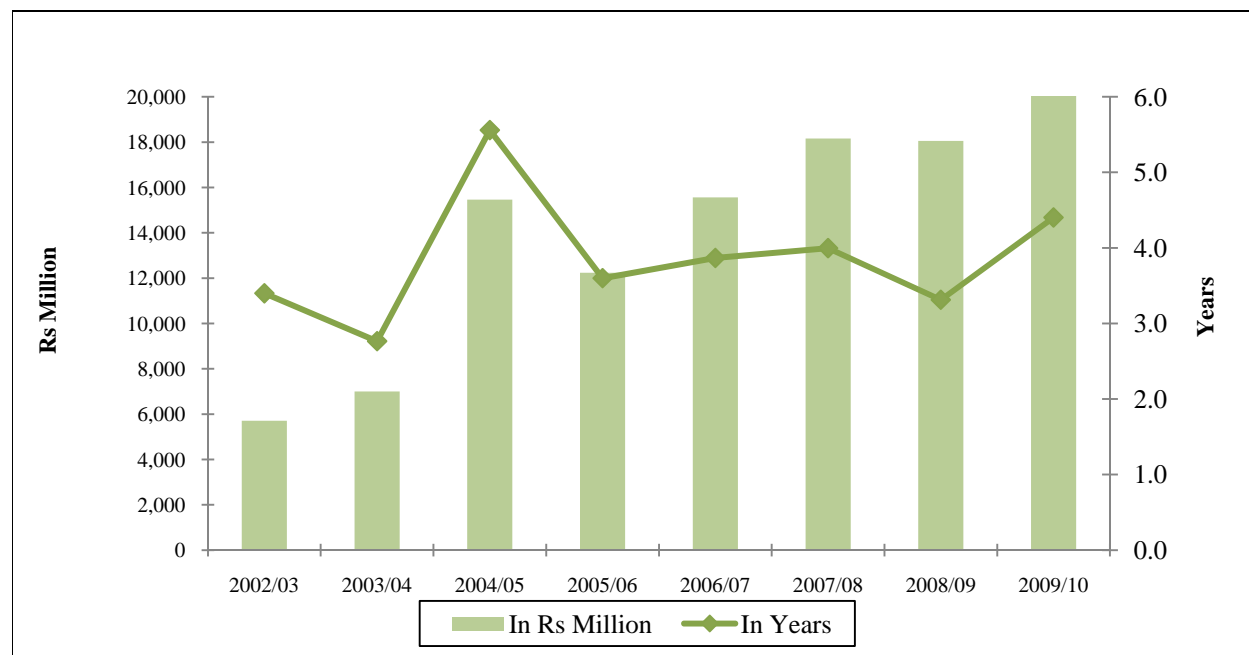
3.28 In addition, the throw-forward of the development portfolio has also increased, implying continued thin-spreading of development resources in future years. By their very nature, most of the development schemes included in the development portfolio of GB are small by the standards of the federal or even the provincial development programs. Moreover, most of the new schemes initiated during the 2002/03-2005/06 period were, on average, even smaller in size than the ongoing schemes.<sup>35</sup> However, despite the introduction of rather small schemes in the development program, the throw-forward tripled over the last five years (Figure 3.6). This implies that on average it would take more than four years to complete all the schemes in the development program at the present level of allocation of funds, provided no new schemes are included in the development program during this period. This level of throw-forward is even higher than that in some of the provinces of Pakistan, despite the relatively small size of GB projects. Furthermore, sectors like Physical Planning and Housing (5 years) and Sports and Culture (6 years) have much higher sectoral throw-forwards than the average. The severe implementation

<sup>35</sup> This led to a decline in the per scheme cost of the development portfolio from Rs 40 million in 2002/03 to Rs 22 million in 2005/06. However, the average cost increased to Rs 32 million by 2007/08.



delays that are implied by a throw-forward of this magnitude, the resulting deferment of project benefits, and the lack of space to undertake new high-return investments reduces the effectiveness of the development program.

**Figure 3.6. Throw-forward of Development Programs**



Source: Ministry of Kashmir Affairs and Gilgit-Baltistan, Government of Pakistan.

3.29 The rapid growth in the number of schemes has over-extended the already weak implementation and supervision capacity of the GoGB, creating concerns about the appropriate use and quality of development spending. The data suggest that utilization of development funds is very high (close to 100 percent), but because of the problems highlighted above, the completion rate of development schemes is a low 36 percent, made more remarkable by the relatively small size of these schemes.

### ***The Fiscal Space for New Initiatives is Very Limited***

3.30 There is little scope for boosting recurrent spending, especially as public administration and expenditure on salaries and wages already consumes a large share, and the capacity for the effective use of funds is limited. Similarly, in the context of substantial throw-forward on the capital budget, it is not advisable to seek new projects. It would be better to complete those already in the pipeline and bring the associated assets on-line (unless some existing projects are to be dropped). There are a plethora of examples where resources have been spent but the asset is still not functional. For instance, consider a project in the transport sector: substantial investment began in 2003 on a bridge in Gilgit (pylons have been constructed in the middle of the river), but the rest of the bridge is only now, in 2010 nearing completion and hence the partially completed asset has not yet lowered transactions costs and boosted productivity.

### 3.4. Difficult Wider Pakistan Context

3.31 Finally, in addition to the challenges of tough geography and weak institutional arrangements, development in GB is impeded by difficulties in the wider Pakistan context, associated primarily with security and macroeconomic issues. No doubt, the security situation in the rest of Pakistan has deteriorated sharply. Terrorist incidents have become more frequent and more injurious in recent years (Table 3.2).

**Table 3.2. Terrorist and Other Attacks in Pakistan from 2005 to 2008**

Year	Number of attacks	Number killed	Number injured
2005	254	216	571
2006	675	907	1543
2007	1503	3448	5353
2008	2386	6661	8008

*Source: State of the Economy: Emerging from the Crisis, Table 4.6, Institute of Public Policy (IPP), Beaconhouse National University, 2009.*

3.32 Open conflict in the first half of 2008, pitting the Pakistani armed forces against the Taliban and other insurgents in the Swat valley of the Malakand district (adjacent to GB), has placed huge strains on the whole country. The expansion of the violence to South Waziristan in NWFP in mid-2009 following a series of terrorist attacks, has caused further loss of human life, displacement of civilians, and destruction of property. While many Swat residents have returned to their homes, it is estimated that there were some 2.7 million internally displaced persons (IDPs) in mid 2009. Providing for the IDPs and undertaking reconstruction activities is a huge challenge to the GoP.

3.33 The volatile political and security situation has made it harder to respond to various external shocks, such as the food, fuel and financial crises of recent years. The combination of major terms of trade shocks, increasing spending demands for security, falling capital inflows (largely related to the escalating violence and loss of confidence), and policy inaction, led to growing fiscal deficits, mounting balance of payments difficulties, dwindling international reserves, sliding exchange rates, accelerating inflation, and eventually to slowing growth in 2008. The International Monetary Fund (IMF) and other development partners have supported the GoP's efforts to address these macroeconomic imbalances, but the macroeconomic situation remains challenging, and sustained effort by the GoP is needed to stay on track with the macroeconomic stabilization program.

3.34 While GB has been fortunate to avoid much of the direct effects of the violence and macroeconomic difficulties afflicting the rest of Pakistan, progress in GB has been harmed by these factors. For example, tourism has good potential to provide broad based income earning opportunities based on GB's natural and cultural assets, yet without direct entry points (such as international airports in Gilgit or Skardu), arrivals to GB are falling, as perceptions about Pakistan become more negative. The scope for attracting investment into the mining or hydropower sectors is also reduced in the present circumstances. Weakening growth in Pakistan overall lessens tourist arrivals from within Pakistan, impairs business for GB companies and traders, and translates into fewer income earning opportunities for migrants from GB. Finally, the lack of fiscal space at the GoP level constrains the capacity for expanding federal transfers to increase the GB budget or follow-through on key priorities like breaking ground on the planned mega-hydropower projects or connecting GB to the national electricity grid. These features of the wider context look likely to dampen the external impetus to growth in GB for some time.

### **3.5. Concluding Comments**

3.35 The challenges noted above are central both to understanding the development process in GB and to identifying meaningful and feasible steps that would help the people of GB continue defying the odds. Progress will hinge on increasing agglomeration, expanding connections, attenuating divisions, strengthening governance, improving accountability, and enhancing the effectiveness of public spending. The evolution of the wider Pakistan context will also be important to the prospects of widening the transformation of GB.

3.36 The analysis in the rest of the report highlights the importance of overcoming difficult geography and improving governance at the sectoral level if the people of GB are to achieve higher standards of living and accelerate growth. A series of policy options emerge from the sectoral investigations and consultations with stakeholders, which, as noted above, are divided into three broad sub-headings: accelerating private sector led growth (covering agriculture, mining, tourism and trade), improving public service delivery to underpin growth (reviewing the provision of social protection, education, health and water supply & sanitation services), getting the most out of infrastructure investments to boost growth (looking at irrigation, energy, and transport). Given this breadth, the proposed policy options amount to an extensive list, even when each sector is prioritized to only 3 items for immediate action and 3 initiatives for pursuit over the medium term. These are discussed in more detail at the end of each respective sectoral presentation, and they are also compiled in one table in Annex 3. Cross-cutting policy priorities and the implications of following through on some of the proposed initiatives at the sectoral level are subsequently discussed in Chapter 7.

## **4 Accelerating Private Sector Led Growth**

### **4.1. Introduction**

4.1 While government spending has an indubitable impact on growth, especially through mega projects like the KKH or the proposed hydropower investments, private sector led growth is essential to spur broad based economic dynamism and generate employment opportunities. There have been some important breakthroughs in GB. For example, a fruit company is drying and packing top quality apricots that are marketed as far away as the UK. Gemstone cutting, polishing, and making into jewelry has grown to become an important part of the tourism experience, complementing the effort to develop key cultural and natural assets into an attractive overall package. The Sost Dry port, on the KKH approaching the border with China, was set up in 2002 as a joint venture between a Chinese and a Pakistani company, and serves as the hub facilitating overland trade between China and Pakistan. Entrepreneurs have achieved these gains with perseverance and the support of numerous stakeholders. Sustaining and accelerating private sector led growth will hinge on expanding these enterprises and entering new areas.

4.2 By all accounts, GB's nascent private sector faces a range of impediments. The small population spread across a difficult terrain with little connectivity results in highly segmented factor and output markets, constraining economic activity to enterprises that are often informal and small, with limited value addition. Large enterprises are mostly absent, and even medium sized firms are few. Despite a gradual shift to cash crops, agricultural production remains overwhelmingly at the subsistence level. Lack of electricity hampers the development of cold storage capacity and sparse road networks limit access, both of which are needed for higher value added fruit processing and marketing, for example. Facilitating denser concentrations of economic activity, enabling a greater potential for the exchange of goods, factors of production, services, as well as information and ideas, remains a major challenge.

4.3 Despite some key differences, much of the policy and regulatory framework is integrally linked to the wider Pakistan context, bringing its own set of issues. The most recent (2007) investment climate surveys for Pakistan report that electricity, corruption, macroeconomic concerns, and political instability are cited as the top constraints by participating firms. In contrast, respondents indicate that there have been meaningful improvements in the regulatory framework and access to finance. Still, these issues manifest differently in GB, which are in any event not covered by many surveys. While the quality and supply of power are major concerns in the rest of Pakistan, in GB it is access to power that constrains growth in key sectors, impeding even the basic mechanization of mining and agriculture, for instance. Concerning the state's role in establishing the institutions underpinning the private sector, the World Bank's Doing Business 2010 indicates that Pakistan ranks 85th overall on the ease of doing business – with labor market regulations, contract enforcement, and the complications of paying taxes posing the greatest difficulties. These may significantly hamper business and deter potential investors. Additional challenges around the public investment program include the need to strengthen project execution and completion of those currently in the pipeline, such as roads and bridges, which will help connect markets and enable the private sector to realize productivity gains. Other features of the governance mosaic are also important, such as the village organizations that are serving as an intermediate step towards the commercialization of agriculture. Chambers of commerce may be effective channels for raising the awareness of policy makers and other stakeholders about the main constraints facing the private sector in GB.

4.4 This chapter looks at the prospects for private sector led growth emanating from the key sectors of agriculture, minerals, tourism, and trade, mindful of some of the challenges noted above. Substantial productivity gains appear feasible in agriculture, but the sector is likely to shed employment in the

process, which would then need to be absorbed elsewhere. Realizing the great geologic potential in minerals depends on addressing access issues, as well as the infrastructure needed for mechanization. The stunningly beautiful landscape, the wonderful cultural assets, and the mountaineering niche from housing K2 and other legendary peaks form a good basis for expanding tourism, if the security perceptions of Pakistan improve and access gets better. Finally, although overcoming the Attaabad landslide (Box 3.1) may require efforts spanning several years, the trade route along the KKH brings the possibility of greater regional integration and associated value added activities over the medium-term.

4.5 Boosting income earning opportunities in the private sector will depend on providing adequate public services and infrastructure. Social protection facilitates risk taking and mobility. Education and health services raise labor productivity. Roads connect people to markets. Irrigation is essential to making land arable and enhancing agricultural productivity. Hydropower investment increases the supply of electricity available for food processing or mineral extraction and shaping. These essential catalysts for growth are explored in subsequent parts of the report (Chapters 5 and 6).

## 4.2. Strengthening the Transformative Role of the Farm Sector

4.6 For centuries, agriculture, livestock, and forestry (ALF) have provided for the subsistence needs of the people of the region, and despite a rising proportion of non-farm sources in overall household incomes, it still remains the main source of livelihood for a large majority. Incomes from ALF account for 52 percent and 40 percent of the total incomes earned in 2005 by poor and non-poor households respectively.<sup>36</sup> While the continued significance of ALF in local livelihoods is undeniable, its ability to play a transformative role in the local economy is restricted by limited gains in productivity and a slow pace of transition towards greater value addition and commercialization. Yet, where people have seized the emerging opportunities to add value by grading, packaging and labeling produce, for example, the gains from ALF have been significant. These opportunities as well as continued challenges are deeply linked to the socio-economic and agro-ecological factors that emanate from the regions' geography. The performance of public institutions that govern ALF also plays a strong role in determining outcomes in the sector.

4.7 Enhancing the transformative role of ALF in GB would require policy actions that address the issues of productivity, production losses, value addition, and commercialization in each sub-sector, including crops, fruits, livestock, and forest-based products. In crops and fruits, this would mean increasing the supply of improved planting material, investing in infrastructure (including storage facilities and physical agricultural markets), and efforts to add value through processing as well as by capitalizing on organic and fair trade aspects of production. In livestock, boosting productivity will hinge on increasing the availability of animal feed by establishing local feed mills and improving animal breeds through careful selection. On the forestry front, increasing the involvement of communities in the management of forest and wildlife resources and linking conservation efforts to income-generating opportunities such as eco-tourism and carbon trading remains important. Building the capacity of relevant line departments and working closely with CSOs on ALF issues is also an important priority.

### Development Performance to Date

4.8 According to the 2004/05 PSLM, 45 percent of the total labor force in GB is engaged in agriculture.<sup>37</sup> AKRSP's data show that ALF accounted for 41 percent of household incomes in 2005. Within ALF, the livestock sector contributed 38 percent followed by crops and vegetables with 35 percent. Income from fruits accounted for 16 percent, with the rest coming from forest-based products. Though ALF continues to play a significant role in local livelihoods, the sector's ability to secure higher returns for local people remains limited. ALF based incomes are growing at a slow pace. Household income from ALF grew by 4.5 percent between 1994 and 2005, compared to 10.1 percent growth recorded from non-ALF sources. An overwhelming part of the production in ALF remains subsistence in nature, with meager levels of productivity and marketed surplus, particularly in grains and livestock products. As a result, a deficit in the local production of key ALF products such as grain, milk, meat, and fuel wood is common.

### *Productivity*

4.9 Most farm activities in GB, including livestock and traditional cereal crops, such as wheat and maize, suffer from low productivity. The yields of cereal crops are low, even in comparison with the rest of

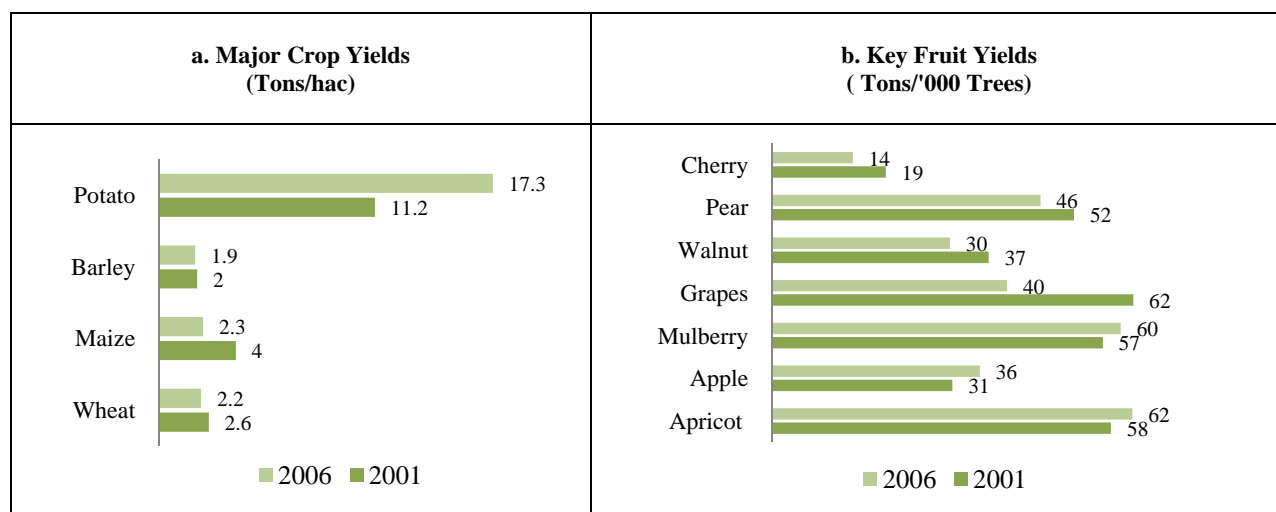
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<sup>36</sup> AKRSP (2007): An Assessment of Socio-Economic Trends and Impact in the Northern Areas and Chitral, Pakistan (1991-2005).

<sup>37</sup> The term agriculture in the PSLM refers to farm-based activities, including agriculture, livestock, and forestry.

Pakistan. According to GB's s Agricultural Statistics 2006, the wheat yield in the region is 2.2 tons/ha compared to 2.8 tons/ha in Punjab, while the maize yield is 2.3 tons/ha against 2.9 tons/ha in the rest of the country.<sup>38</sup> The yield of barley remains at a lowly 1.9 tons/ha. Moreover, grain yields across all major cereal crops declined between 2001 and 2006 (Figure 4.1a). Lower and declining productivity in cereals have added to the grain deficit of the region. The GB currently faces a net grain deficit of 85,252 metric tons, equivalent to about 47 percent of the total grain requirement in the region.<sup>39</sup> This deficit is met through wheat procurements, mainly from Punjab Province, and is supported by a federal subsidy. As with cereals, the productivity levels in some fruits of commercial significance, such as cherries, grapes, walnuts and pears, also fell in 2006 from 2001 levels (Figure 4.1b).<sup>40</sup>

**Figure 4.1. Major Crop and Fruit Yields**



Source: Northern Areas Agricultural Statistics, 2001 and 2006.

4.10 In some crop and fruit production statistics, however, there are encouraging signs. The production of apricots and apples - two major fruit crops with high market potential - rose by 6 percent and 15 percent in the period 2001-06. Even more noteworthy, the production of potatoes, which is by far the largest cash crop in the region, has increased significantly. In the 2001-06 period, the potato-growing area rose by 24 percent, while overall production almost doubled, registering a 91 percent increase over 2001 levels. The production gains in potato are of great significance, and the crop brought revenues of Rs 974 million in 2005. However, the shift into potato farming is adding to the grain deficit and affects the supply of wheat straw for livestock.<sup>41</sup>

4.11 Low productivity is also major concern in the livestock sector which remains an important part of household income due to its contribution to the production of milk, meat, farmyard manure, wool/hair, and draft. Livestock holdings, including cattle, sheep and goats in GB increased between 1996 and 2006, largely in response to rapidly rising prices of livestock products and governmental and non-governmental

<sup>38</sup> Wheat and maize yields are averages for 2004-2006.

<sup>39</sup> This gap remains despite governmental and non-governmental efforts in irrigation and land development that have increased cultivable land by 16 percent since 1991.

<sup>40</sup> Note that productivity for fruits is based on the number of fruit-bearing trees. Fruit production per unit of land is not measured reliably in GB because of mixed cropping patterns, involving the practice of tree-farming alongside crops, water channels, and the like.

<sup>41</sup> The estimate of revenues from potatoes is based on AKRSP's Socioeconomic Survey data for 2005.

efforts on the supply side.<sup>42</sup> Anecdotal evidence suggests, however, that the region faces high deficits in milk and meat production. Milk yields of livestock in GB have generally remained low due to a combination of genetic and feeding constraints, though some signs of improvement have begun to show in recent years. AKRSP's statistics suggest that cow milk yields in parts of GB showed some improvement between 2001 and 2005, while the yields from small animals like goats and sheep declined.<sup>43</sup>

4.12 Forests and wildlife, though crucial to the environmental and ecological sustenance of the region, have remained marginal from the standpoint of economic production. Overall forest-cover in GB, including natural and manmade plantations, accounts for only 5.2 percent of the total area. Economic harvesting of natural forests (designated and protected forests constituting more than 80 percent of the forest cover in the region) is restricted by law, but illegal commercial timber harvesting from private forests in Diamer district continues.<sup>44</sup> In addition, the natural coniferous and scrub forests in the region are drawn upon to meet the subsistence needs of the local population for timber and fuel wood. Both of these are resulting in deforestation and degradation of forests due to overexploitation. Besides timber and fuel wood, other economic products associated with forests in GB include herbs, pine-nuts, mushrooms and wildlife. Currently, a number of small-scale initiatives are underway to link the conservation of forests and wildlife to other economic sectors, such as ecotourism, in order to increase economic benefits from conservation.

### ***Post Harvest Losses***

4.13 Agriculture in GB experiences high losses at the production and post harvest stages. The waste rate is particularly high in fruits and vegetables (Figure 4.2a). Among major fruits, where close to a third of the total produce is wasted on average, mulberry and apricot top the list with a waste rate of 66 percent and 41 percent (Figure 4.2b). The notable exceptions are less perishable fruits such as almonds and walnuts, where the loss rate is 3 percent and 2 percent. In vegetables, losses are more pronounced in potatoes and tomatoes. Waste rates in other ALF, such as livestock, are not known, but the high incidence of morbidity and mortality in animals is also a major concern.<sup>45</sup>

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<sup>42</sup> The increase in livestock numbers is also noted by AKRSP's Socioeconomic Survey data (various years)

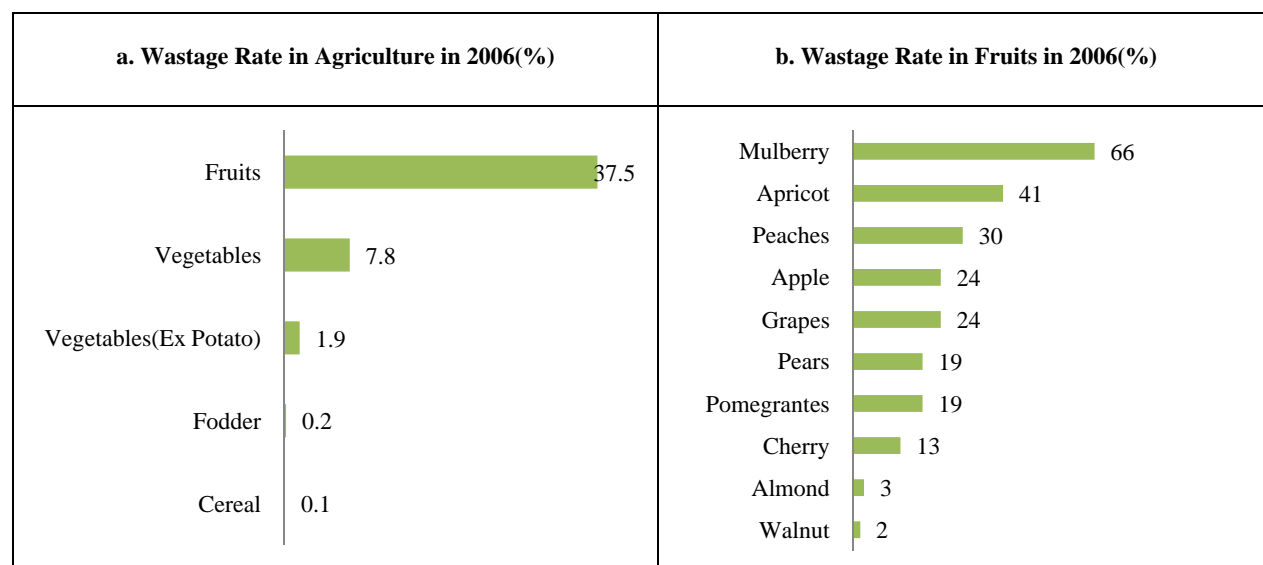
<sup>43</sup> See table 8.4.3 in AKRSP (2007): An Assessment of Socioeconomic Trends and Impacts in the Northern Areas and Chitral (1991-2005).

<sup>44</sup> See the background paper on Natural Resource Sectors-Agriculture, Livestock/Poultry, and Forestry for details: Designated forests are owned by the local communities in the Diamer district and are designated as "Private Forests." The forests in the other districts are "Protected Forests," which are state-owned, although local communities have certain rights to meet their subsistence requirements for forest products. All designated forests are managed by GB's Forest Department.

<sup>45</sup> See the background paper on Natural Resource Sectors-Agriculture, Livestock/Poultry, and Forestry and table 8.4.2. in AKRSP (2007):An Assessment of Socioeconomic Trends and Impacts in the Northern Areas and Chitral (1991-2005).



**Figure 4.2. Wastage Rate in Crops and Fruits (2006, %)**



Source: Northern Areas Agricultural Statistics, 2006.

### **Processing and Value Addition**

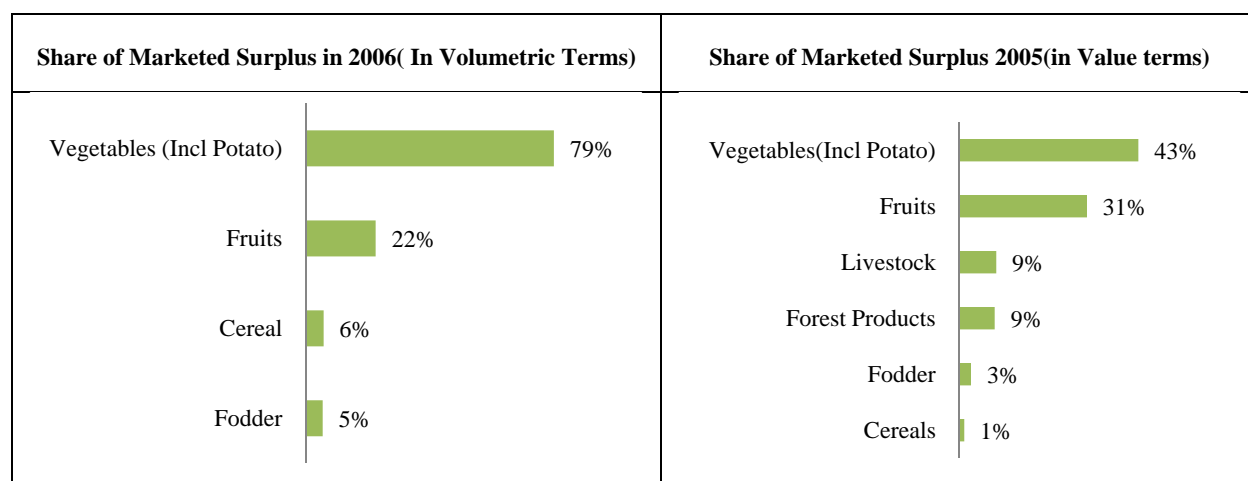
4.14 Currently, the extent of processing and value addition in ALF is limited, in terms of both scale and scope, which partly explains the high waste rate (and low incomes), particularly in perishable produce such as fruits and vegetables. Nearly all fruits and vegetables of commercial significance are sold fresh with few exceptions, such as apricots, where some processing takes place in the form of drying and kernel-oil extraction. In other fruits with high market potential, such as apples and cherries, a select number of local marketing associations add value by grading, packaging and labeling the produce. Honey-bee keeping is another activity in which some value is added by bottling and labeling. In the livestock sector, however, processing for the most part takes place along traditional lines, mainly for home consumption. Weaving wool into fabric, making traditional rugs from animal hair, and churning butter from milk are examples of traditional processing in the livestock sector. Finally, in forest based products, the preparation of construction products for housing (for example, doors and windows), and furniture making for local markets are the dominant forms of processing and value addition.

### **Commercialization**

4.15 The level of commercialization in ALF remains low.<sup>46</sup> A large part of ALF, particularly in crops, livestock, and forestry, is still geared towards home consumption. The only agricultural activities where commercialization has picked up in recent years are vegetables and fruits (Figure 4.3). The relatively large share of marketed surplus in vegetables is due to high commercialization in potato production, which accounted for 52 percent and 57 percent of overall vegetable production by volume and value, respectively. The share of marketed surplus in potatoes is estimated to be 80 percent in volume terms and 72 percent in value terms. Similarly, in the fruits subsector, where 31 percent of the total produce is sold to markets, commercialization levels are higher in apples, cherries, apricots, pears, grapes, walnuts, and almonds.

<sup>46</sup> The term commercialization in this context refers to the share of marketed surplus in overall production.

**Figure 4.3. Share of Marketed Surplus in Volume and Value Terms (2006)**



Source: Northern Areas Agricultural Statistics, 2006 and AKRSP Socioeconomic data, 2005.

4.16 Low levels of marketed surplus in other ALF activities such as livestock, fodder, and cereals not only imply insufficient domestic production but also indicate the interrelatedness of these activities from a subsistence farming standpoint. The use of domestic fodder and wheat straw to feed livestock, and the use of livestock byproducts such as farmyard manure to fertilize crops, is a common feature of the farm sector, for example. A number of pilot projects are currently underway to try to increase the marketing of livestock and forest-based products. These include a government-financed dairy development initiative to facilitate the selling of chilled milk near urban centers, and efforts by agencies such as Karakoram Agriculture Research Institute for Northern Areas (KARINA) to propagate and market medicinal and aromatic herbs such as Kuth (*Sussuria spp.*) and black cumin.

## Key Challenges

4.17 Production and commercialization possibilities in ALF are dictated largely by the physical environment and by how the sector is managed. The temperate climate gives GB a distinct advantage in producing high quality agricultural products, such as temperate fruits, off season vegetables and vegetable seeds. However, the mountainous geography offers little cultivable land (less than 2 percent) and leaves holdings fragmented, limiting the scope for scale in production. Moreover, long distances coupled with inadequate transport and storage infrastructure affect the marketability of perishable produce. Finally, more support is needed from government agencies, for example through the provision of extension services and marketing assistance, or pushing to lower or remove tariff and non-tariff barriers on ALF exports to China.

## Developing ALF in a Difficult Environment

4.18 The geographic characteristics of GB, especially its temperate climate, create ideal conditions for the cultivation of disease-free vegetable seed (such as seed potatoes) and stone fruits such as cherries and apricots. Moreover, the timing of the growing season for seed potatoes in GB enables the region to provide seed stock for the autumn crop in Punjab and NWFP. The GB is already using this advantage to supply about 22,000 MT of seed potatoes to the 273,000 MT national market. Similarly, the harvesting of table potatoes in GB coincides with the slump in the supply of such potatoes elsewhere in Pakistan, thus fetching relatively high prices for the crop. The centuries' old tradition of chemical-free agriculture that has evolved in the region due to its physical isolation and low incidence of disease, also gives the region a

niche in natural and organic farming, catering to a growing number of health-savvy customers in domestic and international markets.

4.19 There are, however, major disadvantages to the climatic and topographic conditions of the region. A short growing season leads to lower intensity of cropping on farmlands and slows the growth and maturity of forest plantations at high altitudes. About 70 percent of the cultivable area in the region falls under a single-cropping zone, where only one crop (such as wheat, barley, or potato) can be grown in a year. Extremely high altitudes create arid conditions, thus limiting the natural vegetation in forests and rangelands. Low precipitation also means that agriculture can only be sustained through costly irrigation. The rugged, mountainous topography adds to the challenge, and yields little land suited to cultivation. Only 1.2 percent of the total area is currently cultivable, while an additional 0.83 percent could be made arable with water- and land-development. Low availability of arable land translates into small farms, and 80 percent of household land holdings are 0.05 hectares or less.

4.20 The short growing season and limited land holdings have several negative implications. They limit the scale of farm production which is crucial for developing markets. Fragmented ALF production makes the delivery of inputs and extension services very costly. On the output side, aggregation and standardization of farm produce for marketing and processing purposes become a challenge. Furthermore, due to the integrated nature of ALF, lower production in one sector affects productivity in the other. Overgrazing of rangelands due to the shortage of fodder is one example, compromising the natural regeneration of forests. Many farmers prefer wheat varieties that promise a higher straw yield over grain, again reflecting the need for feed originating from a shortage of fodder. These interdependencies created by subsistence farming affect the overall productivity levels and slow the transition towards specialized farming.

4.21 Distances are reflected in remoteness from markets for agricultural produce, a problem exacerbated by weak logistics and uncertainty (as evidenced by the Attaabad landslide now cutting off a substantial part of GB from income earning opportunities, Box 3.1). Transportation of highly perishable fruits and vegetables from GB is a real challenge, as the travel time to end markets is measured in days, not hours. Lack of specialized transportation facilities, such as refrigerated trucks, makes the marketing of fresh produce even harder. Similarly, due to inadequate storage facilities, farmers and local traders often cannot store perishable produce (such as potatoes) from seasons of high yield, and end up spot-selling their produce at lower prices. Currently, the available storage facilities in GB can only accommodate 475 MT of potatoes - a fraction of the total marketed crop, estimated to be 88,410 MT.

4.22 Long distances also affect the access and affordability of inputs imported from outside, such as livestock feed and ALF alternatives, including the liquefied petroleum gas that is used to substitute for firewood. It is estimated that the forest area of GB has declined from 660,000 hectares in 1992 to 320,000 hectares in 2001. One of the reasons for this decline is the lack of affordable and reliable supplies of fuel wood and timber alternatives.<sup>47</sup> The growing population is putting pressure on an environment that generates comparatively little biomass. As a result, local communities end up over-using the natural forests and adopting farming options that serve subsistence needs but do not offer substantial productivity gains over time. Overcoming these disadvantages requires investment in facilitating infrastructure and other policy measures to help mitigate cost disadvantages and incentivize conversion to more market-oriented production.

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<sup>47</sup>It is estimated that the demand for wood in GB is increasing steeply, from 425,000 m<sup>3</sup> in 1993 to a projected 724,000m<sup>3</sup> in 2018. The annual gap in production and consumption in 2018 is estimated at 650,000 m<sup>3</sup>. See the background paper on Natural Resource Sectors-Agriculture, Livestock/Poultry, and Forestry.

4.23 Restrictions posed by tariff and non-tariff barriers such as strict quarantine procedures for farm-based exports impair GB's ability to benefit from its proximity to China, where the demand for farm-based products is likely to continue growing strongly.<sup>48</sup> Meanwhile, fruit imports from China are growing rapidly, particularly of grapes and pears. Comparatively less onerous quarantine measures on the Pakistani side have contributed to the surge in fruit imports. Another important factor is the competitiveness of Chinese producers, who benefit from advantages of scale in production and better grading and packaging.

### ***Improving the Management of ALF***

4.24 Public institutions play a central role in the functioning of the ALF sector. Large investments and policy interventions, such as the construction of the KKH, have been instrumental in shifting farming choices towards market-oriented production. Similarly, the introduction of high-yielding commercial varieties of fruits, vegetables and livestock through the concerted efforts of the government and local and international CSOs has been important in nudging subsistence farmers into commercial production. While these efforts have brought substantial gains to the region, further steps need to be taken to streamline and enhance the role of public agencies, improve fiscal allocation practices, and strengthen the role of CSOs.

### ***Strengthening the Role of Public Agencies***

4.25 Until recently, public agencies in ALF focused on supply-side interventions, mostly aimed at increasing production in each sector. These efforts, in some cases supported by the FAO, have made important breakthroughs in introducing commercial fruit and crop varieties, such as French cherries in 1981 under the Integrated Rural Development Project (IRDP). In recent years, however, the focus is shifting towards strengthening the link between markets and farm production. Greater policy direction and institutional capacity are needed to address low productivity of agriculture and livestock, high wastage, weak value addition and poor marketing, as well as deforestation and degradation of forests and rangelands.

4.26 *Efforts to Improve Productivity* - Public sector institutions including GB's Agriculture Department (GBAD), KARINA, the Livestock Department and NA Development Program (NADP) have made important contributions to productivity in ALF by improving planting materials, livestock breeds, and disease controls (particularly for livestock), as well as providing training programs to strengthen farming practices. One noteworthy intervention in the agriculture sector has been the use of tissue-culture technology to produce disease-free seed for potatoes. In the crops and fruits sectors, these efforts have led to a significant increase in marketable quantities from 140 MT in 1991 to 7,550 MT in 2007, raising revenues to Rs 114.3 million in 2007.<sup>49</sup> Further productivity gains in commercial activities are constrained by capacity limitations in the provision of extension services. The impact of public efforts in traditional crops such as wheat and maize also seems to be limited.

4.27 The productivity of the livestock sector would be helped by greater Livestock Department efforts to move beyond disease control towards breed and feed improvement. There appears to be little impact to date from past efforts to enhance livestock by cross-breeding local cows with superior sires such as Jerseys, introducing improved sheep and goats, or bettering artificial insemination practices. A coordinated effort by the Livestock Department, AKRSP, KARINA and NADP like initiatives could

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<sup>48</sup> See the background paper 'Promoting Northern Areas Development through Trade Linkages' (Section 4.5) for more details.

<sup>49</sup> Source: Gilgit Baltistan Agriculture Department.

accelerate progress and help systematically select high-yielding local breeds with good adaptability to GB conditions as a means to improve livestock productivity. Similarly, avenues for improving the availability of animal feed by increasing fodder yield and boosting the feed supply from outside have not been fully explored.

*4.28 Insufficient Focus on Issues of Value Addition and Marketing* - Due to an emphasis on increasing raw production, the value adding aspects in the value chain, such as reducing post-harvest losses, increasing processing, improving packaging and enhancing marketing, even in fruits and vegetables of commercial significance, have not received sufficient attention. A clear understanding and analysis of the value chain has been missing in defining the policy and program priorities in ALF.

4.29 In recent years, however, public efforts have started to pay greater attention to processing and marketing aspects. From 2001 to 2006, the GBAD trained 1,850 women and 700 men in food processing techniques and helped them to acquire skills in production technology and marketing. In addition, the department also established a fruit and vegetable processing laboratory in Gilgit to reduce post-harvest losses. The Livestock and Dairy Development Board is offering livestock owners and SMEs economic incentives, such as providing feed, milk-chilling containers, technical support in animal health, and improvement of breeds, in order to promote the selling of fresh milk in urban centers of GB. Some of these dairy centers are also processing and selling yogurt and butter. These pilot initiatives need to be evaluated for their effectiveness and potential for scaling up.

*4.30 Development of New Land and Water Resources* - Given the acute scarcity of land in GB, the development of new land and water resources in economically and technically feasible locations is essential. In addition to facing fiscal constraints, efforts to develop land are hampered by a range of social and legal issues. Land titles and usufruct rights need to be clarified and made tradable as a matter of urgency. The proactive and supportive role of the GoGB is crucial in this regard. Water conveyance across rivers and streams also remains underdeveloped due to a lack of appropriate technology and financial resources.<sup>50</sup>

*4.31 Environmental Sustainability and the Management of Forests* - Improving the management of forests and wildlife is central to sustaining the integrity of GB's ecology. To this end, the Gilgit-Baltistan Forest & Wildlife Department (GBF&WD) is implementing the "Reforestation of Denuded Forest Areas in GB" project, supported by the Ministry of Environment (MOE). It entails planting saplings on the denuded lands and fencing off the areas to avoid grazing and trampling by livestock. The planting of trees on farmlands has been supported effectively in collaboration with the AKRSP and local communities. Currently, about 42,640 hectares of farmland in GB have tree plantations – considered a high proportion in comparison to other parts of Pakistan.

4.32 Major issues such as weak capacity, outdated regulatory framework and conflict over the tenure of forest lands undermine the effective management of forest resources. The existing regulatory framework – the Forest Act 1927 (last amended in 1991) – does not reflect current best practice.<sup>51</sup> Likewise, the existing wildlife law does not adequately address present needs.<sup>52</sup> The enforcement of these laws, particularly the ban on commercial harvesting of forests, remains weak due to insufficient deterrence and poor governance, thus leading to illegal felling and smuggling of timber from GB. Commercial

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<sup>50</sup> For more details, see the chapter 'Extending Irrigation' in this report.

<sup>51</sup> A draft forest policy was developed by GB's Forest Department in 1995 with support from the IUCN. This remains a draft, however, and needs to be reviewed, updated, revised, and ultimately approved and implemented.

<sup>52</sup> A new draft wildlife law was developed in 2005, but further work on it has not progressed.

harvesting of timber from the private forests must be combined with successful regeneration, which has not been the case so far, both in legal and illegal harvesting. The emphasis on regeneration will also create opportunities for gaining carbon credits and engaging communities in carbon trade. There is little compliance with the ban on timber harvesting, as the transport of timber harvested illegally has continued. The involvement of local communities in the management of common natural forests does not receive sufficient encouragement, despite its proven success in other parts of the world, as well as in GB with regard to wildlife and biodiversity conservation. Finally, continuing conflicts between communities and the state over forest land tenure and usufruct rights are hampering the management of forests and harming communities' relations with state agencies.<sup>53</sup>

*4.33 Weak Interdepartmental Coordination* - Given the integrated nature of ALF activities, there needs to be strong coordination between the public agencies dealing with research and extension aspects in the farm sectors. Currently, this is not the case. Weak coordination between the Livestock Department, GBF&WD, and GBAD is a major issue in dealing with the interrelated issues surrounding the management of fodder, livestock, and rangelands. Similarly, the level of interaction between the GBF&WD and GBAD around the issues of farm forestry is limited. Coordination failures also exist between research and extension wings of the relevant departments. Management and coordination problems between KARINA and the GBAD are weakening the potential and effectiveness of agricultural research.

*4.34 Limited Capacity of Public Agencies in ALF* - Weak capacity of public research and extension agencies in ALF affects the scope and quality of public services. Capacity gaps are particularly pronounced in the understanding and application of emerging concepts in ALF, such as the analysis of value chains to help prioritize policy actions. A dearth of relevant and current data impairs the planning and monitoring capacity of the relevant government departments. Weak institutional capacity of the Livestock Department in tackling the issues of feed and breed improvement and disease diagnosis is also a concern.

### ***Improving Fiscal Management***

*4.35* The institutional issues noted above are compounded by low priority given to ALF in terms of public spending. The combined allocation for agriculture, livestock, fisheries, and forestry in GB's ADP was 2.1 percent in 2007-08 (Table 4.1).<sup>54</sup> In the fiscal year 2008-09, the share of ALF increased to 3.5 percent of the ADP, with a threefold increase in the allocations to agriculture and animal husbandry. The fiscal allocations to the forest sector have declined from Rs 41 million in 2007-08 to Rs 33 million in 2008-09. While an increased allocation to the farm sector is an encouraging sign, the widely prevalent practice of high throw-forward in public sector spending is even greater in ALF, thus delaying the completion of projects. The throw-forward rate in ALF beyond the budgeted year (2008-09) was 60 percent compared to the overall average of 45 percent. Moreover, anecdotal evidence suggests that timely allocation of budgeted resources is particularly crucial for ALF where spending is highly dependent on the farming calendar, such as for sowing, planting, and harvesting. Focusing spending on a few promising value chain propositions in ALF would be a positive step.

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<sup>53</sup> Two examples of conflict between local communities and the state in GB are the Chalat-Chhaprot forest and the Khunjerab National Park.

<sup>54</sup> The allocations to water/irrigation per head are not included due to difficulty in discerning the investment on drinking water supply projects from irrigation schemes.

**Table 4.1. Allocation for the Agriculture Sector in the Annual Development Plan**

	ADP 2007-08			Allocation for ADP 2008-09		
	No. of Schools	Allocation (Rs Mil)	% of total ADP	No. of Schools	Allocation (Rs Mil).	% of total ADP
Agriculture	12	29.4	0.6	18	97.3	1.8
Animal Husbandry	6	18.6	0.4	7	27.3	0.5
Fisheries	2	9.0	0.2	3	32.6	0.6
Forestry	8	40.7	0.9	6	32.3	0.6
Water/Irrigation	47	120.1	2.6	57	222.6	4.1

Source: GB Government.

### ***Enhancing the Role of Civil Society Organizations***

4.36 CSOs have played a central role in promoting ALF in GB. For instance, the AKRSP helped leverage social capital to expand the outreach of extension services, aggregate fragmented production, and increase value added (Box 4.1). Through its various programs in ALF, it has trained more than 20,000 farmers in improved techniques of farming, post-harvest handling, and fruit processing. Other major contributions include investment in community infrastructure, such as irrigation channels and farm-to-market roads, which have helped expand the production and marketing of farm produce. More recent efforts include the formation of “growers’ associations” to adopt common standards and secure label certification from the Fair Label Organization (FLO).

#### **Box 4.1. The Emerging Private Sector in GB: The Story of Mountain Fruits Private Limited**

Apricots are pre-eminent among the fruits of GB, with a total annual production of around 100,000 tons. Yet only a fraction of this harvest reaches the major markets in the rest of Pakistan due to long distances and poor transportation logistics. While farmers have dried apricots for centuries in GB, fruit dried using traditional methods scarcely finds its way onto the urban markets because of the unhygienic method of drying and the poor quality of the product. After testing several techniques for improved drying for value-addition over the past two decades, AKRSP helped introduce a Turkish drying method in order to satisfy the international food quality standards for dried apricots. This method entails drying apricots on clean wooden trays and washing with clean water after drying to remove surface dust and contaminants.

Having started as a subsidiary of the AKRSP, the Dry Fruit Project evolved into the ***Mountain Fruits Private Limited (MFPL)*** Company, catering to international markets. Now small farmers are able to fetch better prices for their apricots. The creation of a local business entity for exporting dried apricots directly to overseas buyers was essential to effect a major transformation in the sector. The MFPL has installed a small processing unit in Gilgit for washing, grading and packing the product under the technical supervision of food technologists, and has been exporting premium quality dried apricots to a buyer in the UK since 2002. The company has gradually increased its production capacity to meet the incremental demand for the product within and outside Pakistan, which has enabled more farmers to be trained for quality apricot drying. The current annual capacity of MFPL is 100 tons of dried fruits and processed nuts during the winter season. MFPL employs 10 staff and 50 women day-wage workers. The total production for 2004 was 77 metric tons of dried apricots, 1.8 metric tons of apricot kernels, 200 kg of sun-dried tomatoes, and 800 kg of walnut halves.

Apricot production is a viable source of income for the communities of northern Pakistan, particularly women. The average household income earned by families selling their produce to the MFPL is about Rs 50,000 per season, helping raise their quality of life. The company is committed to providing training to women in improved fruit drying and value-addition of fruit products. Moreover, the MFPL also provides seasonal employment for women to supplement their income. The company is a model for other investors to set up similar enterprises in GB in order to stimulate economic growth and employment. Agro-processing is a field that holds great potential for the economic development of the region.

Source: The Aga Khan Foundation 2009.

4.37 Close collaboration between government agencies and large CSOs (such as the IUCN and AKRSP) is a key feature in ALF. The Agribusiness Support Fund (ASF) and the AKRSP are currently collaborating to improve service delivery in the farm sector by engaging the private sector. In the past, a partnership between the GBF&WD and the AKRSP was essential to increasing the planting of trees on

the newly developed lands. Similarly, the partnership between the GBF&WD and IUCN for wildlife and biodiversity conservation have created new and effective regimes for common-property management, involving communities and creating economic incentives for conservation (such as revenue generation through trophy hunting). Global initiatives such as the Clean Development Mechanism (CDM) offer new opportunities to CSOs and the GBF&WD to work together and to extend their conservation models to other areas of forest management.

## **Looking Ahead: Policy Options and Recommendations**

4.38 Raising output while maintaining the integrity of natural resources is important, both for the economic transformation of GB and for the environment. Public efforts to increase economic returns in ALF should be informed by a clear identification of the challenges as well as the potential of key value chains in crops, fruits, livestock and forest-based resources of market significance. The available information suggests that boosting productivity, reducing losses, and increasing marketing of ALF products are key areas in need of greater policy attention. Conserving and developing environmental resources need to feature high on the policy agenda in order to sustain the fragile mountain ecology of the region.

### ***Boosting Productivity***

4.39 Greater productivity hinges on the availability of improved planting material and animal breeds, as well as the application of better crop and livestock management practices.

- **For immediate action:** Widen the availability of high quality planting material, particularly in horticulture, by increasing the capacity of existing seed facilities (such as tissue culture of potatoes) and by strengthening the link between KARINA and GBAD for greater application of research in the field. Improve coordination between the government, CSOs and the private sector to strengthen the delivery of extension and training programs for farmers and local service providers in crops, fruits, livestock, and forestry.
- **For pursuit over the medium-term:** Design and implement a livestock breed improvement program through the introduction and selection of local livestock breeds (especially cattle) based on the attributes of yield and feeding requirements. Study the feasibility of establishing local animal-feed mills in the private sector. Complement the existing crop research programs of KARINA and NAAD by following participatory variety selection approaches to select cereal varieties that are adapted best to meet farmers' needs. Strengthen the technical capacity of staff and policy makers in ALF. Increase the fiscal allocation for the development of irrigation and land, applying government-CSOs partnership models.

### ***Reducing Losses and Adding Value in ALF***

4.40 Raising returns to farmers in ALF depends on curbing the current high-wastage rates by creating opportunities for processing, storage and other post-harvest handling, as well as by enhancing marketing.

- **For immediate action:** Expand the outreach of home-based apricot processing techniques through training and financial facilitation, and linking them to private sector SMEs like the MFPL. Allocate resources to private sector players and CSOs for research and development in processing of other fruits, vegetables, and medicinal and aromatic plants. Establish local agricultural and livestock markets in major cities of GB including Gilgit, Skardu, and Chilas, in order to facilitate the sale of farm inputs and outputs. Expand the



existing pilot of milk marketing to other geographic areas, and extend the initiative to additional high value added products, such as vegetables and fruits.

- **For pursuit over the medium-term:** Study the modalities for establishing a network of privately managed special storage facilities for fruits and vegetables. Investigate an appropriate incentive structure for the private sector to establish processing and packaging facilities for ALF produce. Seek branding opportunities for GB's ALF produce by acquiring certification and standards for organic and fair trade (including HACCP Certification). Link fresh and local processing of farm produce to the tourism cluster by building on the concept of health food. Explore export opportunities for GB's produce to emerging markets in China by pressing for a lowering trade barriers and by overcoming supply-side constraints in the aggregation of produce at the village and regional level to create opportunities for scale and value addition.

### *Strengthening the Integrity of Environmental Resources*

4.41 Improving the state of forestry in GB requires policy actions that encourage the involvement of local communities and link conservation activities to economic incentives.

- **For immediate action:** Reorganize and strengthen GBF&WD. Community based planning and sustainable management of forests is needed that allows sustainable use of forests over the long term and controls further deforestation and degradation. Pursue models of joint forest management by establishing formal agreements between the GBF&WD and communities to increase effective participation of the latter with clear roles, responsibilities and benefit-sharing mechanisms. Build on the government-CSO partnership model to scale up ongoing reforestation projects.
- **For pursuit over the medium-term:** Explore opportunities to link forest and biodiversity conservation activities to revenue-generating initiatives such as the CDM and eco-tourism. Strengthen the supply of fuel wood and timber alternatives to ease the pressure on natural forests. Prepare a feasibility study to re-designate selected "protected forests" as "village forests" (similar to those provided for in the Pakistan Forest Act, 1927) and delegate management responsibilities to the respective community organizations to overcome existing conflicts between local communities and the state agencies.

### 4.3. Tapping Minerals

4.42 The mineral sector has significant potential to boost private sector led growth, as noted by the findings of geological reports confirming the occurrence of a diverse mix of precious and semi-precious stones including rubies and sapphires, dimension stones like marble and granite, and metallic minerals such as gold, copper, molybdenum and tungsten. The sector is in its infancy, however, accounting for only a small share of employment, income, and government revenues. Exploiting these resources and moving into higher value added activities in the sector will be important to expanding income earning opportunities in GB and helping people exit subsistence agriculture and poverty.

4.43 The mining sector faces a variety of challenges. Mineral deposits are dispersed across difficult terrain, including gems that are typically found at high altitudes. This makes it hard to generate economies of scale and develop the needed human resources. Mining locations are typically far from supporting infrastructure, like roads and electricity, complicating access and efforts at mechanization. This constraint affects dimension stones especially, which are large and heavy, and involve significant transportation and processing costs. There are difficulties reaching some areas with good potential due to security and clearance issues, as well as conflicts between tribally held communal property rights and the need to issue long-term leases to encourage investment. The Department of Mineral Development (DoMD) has several other sectoral accountabilities and is understaffed.<sup>55</sup> It focuses mainly on granting licenses but has little capacity for some of the other critical functions of mining administration, such as producing geological surveys, generating basic geological data, and promoting business opportunities. In the absence of large scale investment, much of the ongoing mining activity is artisanal, with few royalties collected.

4.44 The sector has the potential to be a major source of direct revenue to the GB, and the funds could, at least initially, be used to finance promotion and facilitation activities. A bright spot in the sector has been the role of CSOs, which have supported value addition based on gemstone cutting and jewelry making. Key steps to accelerate the development of the sector center on implementing fully the National Mineral Policy, improving mineral management, fostering investment, and strengthening downstream linkages. This involves initiatives to build institutions (establishing a Mineral Investment Facilitation Authority (MIFA) and a separate department of mineral resources), bolster the capacity of the department, increase the geological information available at the pre-competitive stage, and facilitate value addition. In developing appropriate policy responses, the GoGB and other stakeholders will need to consider steps that will boost the returns and safety of continued artisanal mining activity in the near-term, while laying the foundations for formal, mechanized, and large scale mining activities over the medium- and long-term.

### Development Performance to Date

4.45 The mineral potential of GB is similar to that of neighboring NWFP, and there is scope for large scale metals mining.<sup>56</sup> Similar to the rest of mineral rich Pakistan, however, these endowments are not fully developed and mining activity accounts for less than 1 percent of GDP. With virtually no large scale mining operations in GB, the region's share of national mining output is also negligible. While significant levels of informal activity mean that official employment figures are likely to be underestimates, the PSLM 2004/5 data indicate that the mining and quarrying sector employs only 0.1

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<sup>55</sup> The full department heading is the Department of Tourism, Environment, Industries, Mineral Development, Sports & Culture, Commerce, Labor, and Transport.

<sup>56</sup> See the NWFP Mineral Sector Policy Note (2009).

percent of the GB's workforce. Public spending on promoting mining and related activities is also very small.

4.46 CSOs are making an important contribution to the development of the mineral sector in GB, helping generate consensus at the community level, providing training and outreach services, as well as promoting the downstream value added activities of gemstone cutting and polishing. The Northern Areas Gemstone & Mineral Association (NAGMA – established in 1984) represents the interests of gemstone traders and miners, and seeks to promote international trade and marketing of GB's gemstones. The organization is working with the GoGB to build lapidary skills, including cutting, polishing, and jewelry making for enhanced value added. The AKRSP has also established gem cutting and polishing units in each of the six districts of GB with funding of the Rupani Foundation.<sup>57</sup> There is substantial potential for expanding production and employment (Table 4.2). The granting of 69 exploration licenses and 54 mining leases to private sector parties between 2004 and 2007 shows that there is great interest.

**Table 4.2. Gilgit-Baltistan Mineral Sector**

	<b>Gem Stones</b>	<b>Dimension Stones</b>	<b>Metallic Minerals</b>
<b>Reserves</b>	Ruby, Aquamarine, Tourmaline, Topaz, Spinel, Pargasite, Moon Stone, Garnet, Quartz, Epidote.	Marble, Granite, Soapstone (currently only marble is being mined).	Gold, Copper, Lead, Zinc, Silver, Bismuth, Molybdenum, and Tungsten (currently only gold is being extracted).
<b>Current Activity</b>	Informal, micro/artisanal.	Marble and granite mining somewhat formal	Informal, micro / artisanal.
<b>Mining potential</b>		Small to medium size enterprises for domestic and international markets.	To be explored.
<b>Potential Linkages</b>	Gemstone cutting and polishing.	Dimension stones feeding the construction industry, domestic and international.	Jewelry making and exports.

### *Gemstones*

4.47 Pakistan is believed to host the fifth largest gemstone deposits in the world, and GB is one of Pakistan's main gemstone mining areas, together with Azad Jammu and Kashmir, and NWFP.<sup>58</sup> Out of a US\$8 billion dollar global gemstone market in 2003, however, Pakistan accounted for a mere US\$13 million, and the Northern Areas Gemstone and Mineral Association (NAGMA) estimates that GB accounts for around US\$5 million of this. Reliable data is scarce, and like in much of the rest of Pakistan, the mining of gemstones remains largely informal and unrecorded in GB, as it is largely undertaken at the artisanal and micro scale. Local miners generally do not even apply for formal licenses or leases from the mineral administration of GB, and permission to mine gemstones stems mostly from village committees. Informal gemstone mining in the region often involves small groups working at 4,000-6,000 meters above sea-level for periods of two to four months during the summers. There may be around 1,200 such mining parties, mostly working "foxholes" - irregular tunnels that pierce the mountains following gemstone bearing veins, which given their characteristic appearance are quite easily identifiable by local miners.<sup>59</sup> The exploration and mining techniques in use are extremely basic. The frequent use of dynamite

<sup>57</sup> The Rupani Foundation is involved in the gold and diamond business in different parts of the world.

<sup>58</sup> According to mining operators, as much as 70 percent of the total gem reserves in Pakistan may be in Gilgit-Baltistan. The federal report "Investment Oriented Study on Minerals and Mineral Based Industries" (2004) also finds strong potential in GB.

<sup>59</sup> For example, the world famous aquamarine from the Nagar Area of Gilgit is mined by locals at a height of 5,500m above sea level. Officials from the mineral administration are not granted access to the mines.

damages valuable stones by fracturing, when an intact large gem is many times more valuable than a set of smaller gems of equal weight. The health and safety of miners are also a major concern, and roof collapses and suffocations in the unstable geology of GB are common. Since the writ of government is weak in many gemstone mining areas, small scale mining is largely unregulated, and accidents are unreported.

4.48 Almost all of the gems from GB are sold in raw form in the major cities of Pakistan, especially Peshawar, which has become a hub of Pakistani, Afghani and Central Asian gems. Gemstones from GB are generally brought into Peshawar by consolidators, with the miners and traders from GB receiving only a small fraction of the total income in the overall value chain. Nevertheless, several GB traders have also participated in international gem shows in the US and Thailand. The DoMD is constructing several shops in one location in Gilgit, which will be made available to NAGMA in order to facilitate gemstone marketing as well as offering other security benefits. A development project to establish a gemstone cutting and polishing center at Gilgit is ongoing, and supported by the project, several staff participated in a 6 week training program in Sri Lanka aimed at building cutting and polishing skills. The trainees are now employed by NAGMA.

### ***Dimension Stones***

4.49 The occurrence of large deposits of dimension stones (granites and marbles) in GB has been confirmed in various geological surveys and maps. Much of the value addition comes when marble and granite are processed into slabs and sold in urban areas for tiles. The igneous rocks are also a key input for ornaments and other artistic endeavors, and the wide variety of multi-colored rocks could meet the large demand internally and externally for exotic dimension stones. Progress has been limited. Many licenses were given to inexperienced private investors in the 1990s, leaving a legacy of artisanal mining, with outdated techniques, elevated costs and high wastage rates (material losses of 70-80 percent). In the absence of technical assistance from the DoMD and investment partners with expertise and financing from the rest of Pakistan, none of these exploration licenses were converted into mining leases, and with the exception of one formal operation in Skardu (catering mostly to the domestic market), virtually no mining activity is underway in dimension stones at scale, and the DoMD has initiated the cancellation of existing leases. It is also worth noting that only three percent of Pakistan's overall production is exported, even though the earnings potential from exports appears to exceed that of local sales many-fold, if adequate distribution chains could be established and the requirements for consistency and quality could be met.<sup>60</sup>

### ***Metals***

4.50 Gold extraction in GB is also largely artisanal and informal, although alluvial anomalies identified in recent surveys indicate a fair potential for small scale mining of gold. Locals supplement their incomes by extracting gold from the river sands during autumn, employing rudimentary panning and washing techniques. There are about 200 families directly involved in gold panning, depending on the gold price. A major concern is the use of mercury to extract gold from ores, after which the residual material containing traces of mercury is thrown into the rivers. This practice has serious long-term implications for the health of miners and other water users, as well as for the environment.

4.51 Initial geological information also indicates that occurrences of copper, molybdenum and tungsten have substantial potential. A Hong Kong based company recently registered in Pakistan and sought to

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<sup>60</sup> NWFP Mineral Sector Policy Note (2009).

collect molybdenum bearing rocks by offering Rs. 500 per 40 kilogram bag. The local population responded using rudimentary mining techniques, but since the enterprise was not licensed, the DoDM halted the practice pending the granting of a license (the application has already been made). In another case, a private party obtained a license to explore for copper in the Yasin area, but the local population is not permitting work to be undertaken unless they are made partners. As a result, actual activity in metals mining is quite limited.

## **Key Challenges**

4.52 Around the world, mining activities take place in some of the most extreme conditions, including harsh climates, difficult geography, and brutal conflict zones, if returns are sufficiently high to warrant the risk and the fixed costs associated with extraction. In GB, the balance of risk and reward has not favored the development of large scale mining, and several major impediments have limited activity to artisanal and small scale efforts. An appropriate policy response would be to seek higher income and greater safety for informal miners, and a shift in the risk–reward balance to encourage large scale mining activities over the medium-term.

### ***Overcoming Economic Fragmentation***

4.53 Mining activity in GB is hampered by the lack of concentrated value that can be realized. As noted above, the major operational gem mines are dispersed in remote areas at high altitudes, reachable only in the summer months. Mechanization and commercialization, especially of dimension stones which have a lower value to weight ratio, have been hampered by the absence of electricity connections needed to run machines. The lack of road infrastructure has the dual effect of denying operators the use of heavy machinery such as compressors, drill sets, cutters and lifters, and making it impossible to bring large stone slabs to market. Hence, gemstone and marble extraction relies on extensive blasting, which comes at a very high opportunity cost. As noted above, gems are damaged and marble is wasted in the mining process, destroying value and undermining competitiveness. The relatively small sizes and irregular shapes of dimension stones from GB impede sales to bigger undertakings in the rest of Pakistan and abroad, and almost all of it is used in small local projects, such as private kitchens. Access to roads and electricity are also essential to developing downstream activities in cutting and other processing.

4.54 The cumulative effect of these challenges is that mining typically takes place on a small scale, using rudimentary techniques. The recognition that small scale, artisanal mining is appropriate in many cases and likely to continue in any event calls for outreach initiatives to help artisanal miners improve practices that boost productivity, enhance safety, and mitigate environmental damage. At the same time, large scale exploitation will require meeting substantial fixed costs. Even if the social returns are higher than the overall costs, the private returns may not be sufficient to spur investment, especially given the various risks.

### ***Administering the Mineral Sector***

4.55 Effectively managing mining resources is never easy, and in GB, there are several complicating factors, including limited administrative capacity and weak public financial management practices. Beginning to address some of these issues will require substantial effort and resources, and will be helped by building on the engagement of CSOs.

## ***Enhancing Public Administration to Foster Investment and Market Linkages***

4.56 The DoMD administers the sector, but as noted above, with multiple other accountabilities in the same department, as well as overlapping responsibilities with the Department of Forestry, the department's effectiveness is quite limited. Substantial human resource gaps also impede strong stewardship and policy implementation. Most mineral related activities are being supervised by non-technical staff. The DoMD does not have geologists or mining engineers on its regular pay roll, and no geological or mineral exploration data is being compiled or maintained for possible reference by potential investors. Three technical positions were created at the end of 2008, but as of 2009, the positions were still vacant, and the recruitment process will take some time. These challenges make it hard to implement a conducive and sound regulatory framework (Box 4.2).

4.57 It is also worth noting that several efforts were made over the years to establish public sector enterprises in the sector in order to boost mining activity. The Gemstone Corporation of Pakistan (GEMCEP) was established in 1974, and focused on exploration and evaluation of ruby occurrences in Hunza as well as topaz in Skardu. While GEMCEP built awareness, a lack of capacity and marketing, among other challenges, prevented it from developing a commercial and modern gemstone operation. Since liquidation of GEMCEP, most gemstone mining has continued informally (as noted above), and no state owned enterprises are involved in gemstone mining in GB.

### **Box 4.2. Minerals Regulatory Framework**

The sector is governed by several framing policies. After an extensive consultation process, the GoP promulgated the first National Mineral Policy (NMP) in 1996, covering key-aspects of the mining sector, including objectives, constitutional position, regulation, institutional framework, licensing, environment, taxation, small scale mining, and social development. An action plan for implementing the policy in GB was prepared with donor support, but the GoGB was unable to follow through on the main recommendations, such as the establishment of a separate DoMD (with an Exploration Promotion Division and a Licensing Division), the constitution of a Mineral Investment Facilitation Authority, or the recruitment / secondment of professionals from the Geological Survey of Pakistan (GSP) and the Pakistan Mineral Development Corporation (PMDC).

In 2003, the GB Mineral Concession Rules were developed, detailing licensing types and procedures, outlining the privileges and obligations of lessees, and providing for the authority of the regulator. The rules also seek to ensure that the local population and economy benefit adequately from mining operations. In the same year, the federal government prepared a strategy on the mining, cutting and polishing of gemstones, aimed at enhancing exports. In both cases, implementation has been limited mainly by capacity constraints. At the end of 2008, the GoGB convened a consultative workshop on "Sustainable Mineral Development in Northern Areas." The main conclusion was a reiteration of the NMP recommendations on strengthening the institutional underpinnings of the department, and establishing Licensing and Exploration Promotion Divisions.

There is substantial scope for improving the regulatory environment. For example, variances between formal leases and traditional land rights based on communal holdings are a source of uncertainty, as is the need for security clearances in some areas. Other restrictions include mandating that gem traders of GB travel to Peshawar in order to market their inventory domestically and to Islamabad in order to obtain necessary export permissions.

4.58 Several policy issues stand out. These pertain to generating geo-data in order to spur investment, strengthening the leasing process, supporting small scale mining, and ensuring adequate environmental and safety protection.

4.59 *Generating geo-data* - A key requirement to attract investment in mining is the provision of geo-data at the precompetitive stage. Pursuant to the NMP, this involves the government carrying out surveys and systematically compiling geo-data from existing operators. Several agencies have been engaged in geological mapping and exploration, including the GSP, the Pakistan Mineral Development Corporation,

the Austrian company Austrominerals, and the Gemstone Corporation of Pakistan. Accessing the findings, however, is difficult. The GSP stores its information at their headquarters in Quetta, and the other institutions' data is not available.<sup>61</sup> In addition, the geological map of GB done by the GSP is on a scale of 1:250,000—broadly defining various geological formations. Actual mining requires more detailed coverage at a scale of 1:50,000. Collecting geo data at this level is expensive and time consuming (at present levels of effort, it could take decades). Neither local operators nor the GoGB appears able to make the initial investment for exploration and identification. The geosciences laboratories in Peshawar and Islamabad are important resources for the analysis of minerals, but are underused and neither have ISO certification, limiting their potential engagement for export oriented operations. Addressing information deficiencies will be important to helping companies understand the mineral potential, as well as motivate them to generate more detailed maps for mineral exploration. A first step would be to pull together whatever data has already been collected over the years and make them available in one place. This will also help to identify data gaps. Overall, more financial resources need to be allocated to hiring staff and improving the department's capacity to generate and make available the needed geological data.

*4.60 Licensing and Leasing* - Under the GB Mineral Concession Rules, the DoMD grants licenses and leases upon the recommendations of a Mines Committee and Sub-Committee. In the absence of other services, this is the core function of the department. However, the needed committees have not been constituted, and applications are processed by the Deputy Director and granted with the approval of the Chief Secretary. This is in contravention of the rules, and with weak accountability mechanisms, the scope for malpractice is unduly high. Realizing the sector's potential would be helped by increasing transparency and establishing defined time limits for the various steps in the application process.

*4.61* Between 2004 and 2007, 69 exploration licenses and 54 mining leases were granted to private sector entities. The process needs to be strengthened and made transparent, however, as applications are not judged based on the technical and financial abilities of the applicants for proceeding with the proposed undertaking, and in practice, licenses and leases are granted “on a first come, first served basis.” This has led to a rush by local entrepreneurs to seek leases, most of whom lack the finances and expertise needed to explore and develop the deposits. Their strategy is to find investors from elsewhere in Pakistan, but there too, human resources, such as quarry masters, are often lacking. The DoMD does not have adequate technical expertise to monitor the progress of the licensee and maintain records of either ongoing or closed mines, and is satisfied by charging application fees and collecting subsequent annual rents. While the DoMD has recently started to press operators to proceed with activity or surrender their licenses, no physical activity is underway in almost 90 percent of the grants made between 2004 and 2007.

*4.62 Facilitating small scale mining* - As noted above, most of the on-going mining activities are very small scale, yet the Mineral Concession Rules do not have any provisions for such miners, who frequently do not obtain leases or licenses to operate. Rather than policing with fines and pressing for strict compliance with the regulatory regime, a more pragmatic approach would be to incentivize voluntary compliance with extension services. The provision of such services to artisanal and small-scale miners, including training and technology transfer would significantly boost industry performance. At present

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<sup>61</sup> In 1997-2001, the Pakistan Mineral Development Corporation (PMDC) generated mineral exploration data on some gemstone deposits. In principle, this data can be accessed by filing a formal request, but parts of them have not been compiled for use by potential investors. As a result, private sector companies holding exploration licenses do not have existing geological information, and the department does not extend support services. Pursuant to GB Mineral Concession Rules, the lessees are obliged to provide geological data prepared during the currency of their licenses. However, no such data has either been compiled or is available within the department.

such efforts have been very limited, since there are no mining engineers or geologists in the department, and procuring such services from outside does not fit within the department's budget.

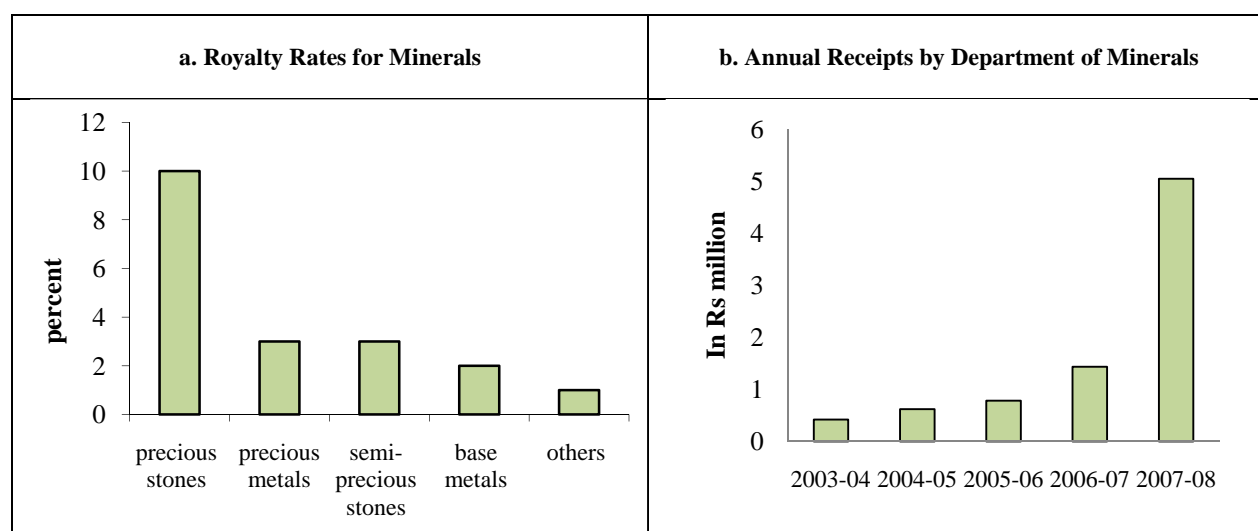
**4.63 Environment and safety** - Weak regulatory oversight translates into major environmental and safety concerns. An environmental impact assessment and rehabilitation program should be made an essential part of the leasing process. For example, the use of mercury in gold extraction from ores is a worry with long-term consequences, both for the miners and for the people exposed to the waste (as noted above). In the absence of an Inspectorate of Mines, there is no mine safety checking mechanism, and accidents are not reported. In the unstable geology of GB, the most common danger is mine roof collapse, but the widespread use of blasting also poses substantial risks.

### ***Improving the Fiscal Regime to Mobilize Resources***

**4.64** Getting the most out of the minerals sector hinges on effective public financial management that transparently collects fees and royalties from ongoing activities, in order to finance extension and promotion activities as well as eventually becoming a meaningful source of independent funds for other parts of the budget. At present, the GoGB is a long way from this goal.

**4.65** While taxation in Pakistan is generally done at the federal level, the royalties from minerals are collected and spent by the GoGB. This means that revenues from mining could become a significant source of fiscal resources controlled at the local level, if the sector were able to expand into large scale activity. The royalty rate on precious stones is 10 percent and is considered high by artisanal and small scale miners, who often evade payment (Figure 4.4a). Royalties on dimension stones average around 30 Rupees (less than US\$0.40) per ton. In the absence of any large scale mining, the collection of royalties is minimal. For example, the DoMD has no record of ever having received royalties from a marble mine in Skardu that reportedly has sales in Islamabad and other parts of Pakistan. The only source of income to the DoMD is from application fees, license renewal fees, and annual rent. The five-fold increase in receipts to Rs. 5 million (US\$ 62,500) in 2007/08 resulted from a sharp rise in interest, especially from Chinese investors in partnership with locals applying for exploration licenses (Figure 4.4b).

**Figure 4.4. Royalty Rates for Minerals and Annual Receipts**





4.66 Capacity constraints are an issue warranting urgent attention. At present, the DoMD neither has adequate manpower nor other resources to monitor progress in the mineral sector. Transparent financial models for the estimation of royalties need to be developed and implemented. Mine production statistics should be improved (in consultation with NAGMA and other mineral associations), and the authorities need to enforce the submission of production records in all mining operations. Only then will it be possible to enhance GoGB receipts from the sector.

4.67 On the expenditure side, the budget devoted to the minerals sector has been limited to less than 0.3 percent of the total over the past five years. This is not sufficient to address the various challenges noted above. Recent increases will enable the hiring of several new staff, but more resources will be needed to strengthen regulatory oversight, meet information gaps, provide extension services, and promote the potential in GB. Capital spending has ranged between Rs. 7-11 million (US\$100-150,000) over the past 3 years, and is aimed mainly at promoting artisanal mining and constructing shops for gem traders. Investment is needed to strengthen the institutional underpinnings and capacity of the DoMD, as well as generate more information. A geological data generation project is being considered, but given technical complexities, progress in this area will hinge on being able to engage the needed human resources.

### **Looking Ahead: Policy Options and Recommendations**

4.68 Realizing the mineral potential offered by the geology of GB without compromising the fragile environment will require strengthening the institutional underpinnings of mineral management, supporting ongoing small scale mining, and opening the door to large scale enterprise.

#### ***Managing the Mineral Sector***

4.69 The effective management of the mineral sector is essential to raising its contribution to GB economy.

- **For immediate action:** Implement the institutional recommendations of the NMP, including building technical capacity, constituting the proposed MIFA, establishing separate licensing and exploration divisions within the DoMD (adequately staffed and financed), and setting up a mining safety and environment inspectorate. The divisions would aim to help catalyze mining activity, while the inspectorate would seek to improve safety and environmental practices.
- **For pursuit over the medium-term:** Strengthen the fiscal regime by establishing a sound license auctioning process and bolstering revenue collection. Moving to license auctioning will only be feasible once more information is compiled on the geological potential. Increasing royalties will depend on raising mining productivity.

#### ***Boosting the Productivity of Small Scale Miners and Artisanal Activities***

4.70 Small scale, artisanal mining will continue to be a major part of the sector for many years to come, and there is substantial scope for improving practices.

- **For immediate action:** Establish partnerships with CSOs to provide extension services aimed at raising the sophistication of mining techniques, improving safety measures, and mitigating environmental damage.
- **For pursuit over the medium-term:** Incentivized by enhanced extension services, and supported by growing productivity, revise the regulatory regime for small scale operators to try

and attract them into the formal sector. This will be essential to raising revenues from their present negligible levels.

### ***Attracting Large Scale Investment***

4.71 The mining sector will only undergo a step change to the next level through large scale activity. This entails substantial fixed costs in a highly uncertain environment. Hence, policy makers will need to improve the risk – reward balance to attract major mining interests.

- **For immediate action:** Establish a geo-data center to prepare, compile, update and make available existing data, as well as generate new data on the geology of GB. More detailed information at the pre-competitive stage will be important to mitigating the risks perceived by potential investors and encouraging more mineral exploration and development.
- **For pursuit over the medium-term:** Identify a prioritized list of sites with concentrated geological potential at reasonable distances, for targeted connective infrastructure investment, both in roads and electricity for mechanization. The investment itself could then be undertaken in partnership with private entities, helping to unlock the mining potential of GB.

#### **4.4. Fostering Tourism**

4.72 The stunning landscape combined with a rich cultural heritage make GB an exciting tourism destination. Managed sustainably, the sector offers the potential to increase employment, raise income, preserve cultural and natural assets, and diversify the economy. While GB is attracting both international and domestic tourists, activity is far below what it could be. It should be noted that intensifying security concerns in the course of 2008 and 2009 mean that international arrivals are currently comprised mainly of the most determined adventure tourists, and even domestic visitors are limited. Hence, efforts to enhance the benefits to GB from the development of the sector need to focus on facilitating this very niche international market, attracting more domestic tourists, and positioning GB to seize emerging opportunities once wider Pakistan circumstances improve. Although the challenges faced by Pakistan and others in the neighborhood have a strong impact on the tourism sector, they are mostly outside the control of GB and beyond the scope of the narrative presented here. Still, where possible, mitigating steps are suggested and issues are duly noted.

4.73 GB's spectacular geography is one of the primary tourism draws, but together with other factors poses significant obstacles to further development. Tourism assets are spread thinly across a comparatively small market, limiting the scope for infrastructure investment. Challenging terrain and climate make it difficult to get to the region and to travel once there. Arrival and departure times are unpredictable (with the variance measured in days), and there are concerns about safety and security. Finally, parts of GB are more insular, and the cultural interactions that accompany tourism need to be managed in a manner that is sensitive to local traditions and consistent with the preservation of GB's heritage.

4.74 Getting the most out of the tourism sector will require good stewardship of tourism assets, including the fragile natural environment and cultural heritage. Indeed, much of the existing tourism capacity is the result of heightened coordination between government agencies, private sector associations, and CSOs engaged in the promotion of tourism. Several successful projects have been carried out using an integrative approach, for example renovating the key tourism asset of Baltit Fort while also improving water supply, sanitation, and schooling in the surrounding area.

4.75 Building on these successes and widening the benefits of tourism will be helped by steps aimed at increasing the income earned from the small number of international visitors to GB, raising the number of domestic tourists, and positioning GB advantageously for potential future improvements in the wider context (such as any betterment in security conditions). Encouraging international tourists to raise average daily expenditure hinges on the provision of higher quality services, and offering a wider range of tourism experiences. Attracting more domestic tourists requires improving the predictability of travel in and out of GB to enable shorter trips. Marketing initiatives based on serious and well targeted research will be important to positioning GB effectively for the medium-term. The proposed area-based pilot project promoting Central Hunza-Nagar as a cultural tourism district would be a good start. The nomination of the Hunza Valley to UNESCO's World Heritage List is another good step, which if accepted, could raise the profile of the region.

#### **Development Performance to Date**

4.76 It is difficult to quantify the contribution of tourism to GB's economy because data is limited. Figures on arrivals, source markets, purpose of visit and average expenditure per tourist are typically not available, as surveys only cover mountaineers and trekkers, about 10 percent of the total (Table 4.3). The information that is available suggests that the sector remains small. International visitors to GB surpassed 15,000 in 2006; almost returning to the peak reached in 2001, prior to the 2002 collapse in arrivals following the September 11, 2001 terrorist attacks in New York and renewed conflict in Afghanistan.

This is but a small portion of the 900,000 visitors to Pakistan overall, and even if the average international tourist to GB stays 10 days and spends US\$100 per day, this would amount to less than 3 percent of the economy.<sup>62</sup> Still, profits in the tourism sector were second only to the trade sector, and royalties (collected by the federal government) are seven times larger than those collected from mining activities.

**Table 4.3. International Tourist Arrivals**

	1998	1999	2000	2001	2002	2003	2004	2005	2006
International Arrivals to Pakistan	428,800	432,200	556,700	499,700	498,100	500,900	648,000	798,300	898,400
International Arrivals to NA	11,339	10,124	8,976	15,685	1,994	5,051	9,191	9,944	15,049
Trekking Expeditions	165	181	168	245	43	106	255	251	196
Trekkers	950 8.4%	803 7.9%	889 9.9%	1,318 8.4%	99 5.0%	377 7.5%	1,776 19.3%	1,443 14.5%	1,049
Climbing Expeditions	50	64	67	70	29	61	69	67	91
Climbers	313 2.8%	461 4.6%	407 4.5%	485 3.1%	210 10.5%	466 9.2%	603 6.6%	475 4.8%	657 4.4%

*Source: MoT and DTP.*

4.77 Most tourists come in search of adventure (mountaineering and trekking), but there are also other potential attractions such as winter skiing at Naltar Valley, water rafting in Gilgit, paragliding in Gilgit and Hunza, fishing in Khalti, or cultural experiences in various locations.<sup>63</sup> Critical infrastructure is being developed, improving accommodations and access links.

### ***Adventure Tourism***

4.78 Mountaineering and trekking tourists are drawn to GB by the confluence of three mighty mountain ranges: the Karakoram, the Hindu Kush and the Himalayan Mountains. As noted above, these encompass some of the world's steepest gradients (Mount Rakaposhi rises 5800m in an 11.5 km horizontal distance from the Hunza River) and five of the world's fourteen 8000 meter peaks, including K2, the world's second highest mountain. For obvious reasons, mountaineering is a highly seasonal activity, with expeditions concentrated in the summer months from May to August. Legendary mountains such as the K2, the Nanga Parbat, Gasherbrum-I and -II, and Broad Peak attract expeditions that prove to be successful in less than half of the cases (Table 4.4), which is part of the allure. Expenditure per climber was about US\$4,294 in 2006, and expeditions employed 5,632 porters (including 112 high altitude porters). The Alpine Club of Pakistan is involved in mountaineering expeditions and in youth training through an institute established in 1977 at Nilt, in Gilgit District. The organization also trains guides, high altitude porters and liaison officers for the expeditions with a focus on waste management and

<sup>62</sup> At their peak in 2006, tourism receipts at the national level were US\$ 260 million, but the contribution to GDP was only 0.2 percent. The vast majority of these visitors were traveling from Europe and the US back home to see relatives.

<sup>63</sup> An adventure tourist is defined as a person who takes part in mountaineering and trekking as an active player and whose stay outside his usual place of residence exceeds 24 hours but is less than 180 days. An in-depth analysis of the "adventure tourism" product is published yearly by the MoT, and provides details on the mountaineering and trekking segments (*Adventure tourism in Pakistan 2006*).

environmental issues. Royalties paid in 2006 reached US\$370,000, amounting to about US\$560 per climber. When mountaineers are asked about their tourism experience in surveys conducted by the Ministry of Tourism, they list difficult air links, high royalties, substantial pollution along mountaineering routes, unreliable weather forecasts, and the limited number of high altitude porters, as their key concerns.

**Table 4.4. The GB's Peaks and Expeditions, 2006**

Peak	Height	Attempts	Conquers
K-2	8611m	8	2
Nanga Parbat	8125m	7	3
Gasherbrum-I	8068m	7	3
Broad Peak	8047m	15	6
Gasherbrum-II	8035m	21	18
Others	<8000m	33	8

4.79 Trekking and walking holidays have become increasingly popular (categorized as traveling on foot to a maximum height of 6500 meters), with the purpose of sightseeing and recreation at various natural and cultural sites. In certain districts, such as in Chitral, Gilgit and Skardu, tourists are required to obtain permits, and fees collection amounted to US\$55,000 in 2006. In other districts, such as Diamer, trekking permits are not needed.

4.80 The number of trekkers in the last twenty years has been highly irregular, from a low of 99 people in 2002 to a peak of 1,776 trekkers in 2004. The most popular trek by far is the Baltoro – Gondo Kodro – Hushe route (182 trekking parties), crossing several panoramic glaciers. The trekkers often come from the UK, France, Germany, Spain, and Japan. The direct competitors of GB are neighboring countries in the Himalayas, particularly Nepal, which is visited by 150,000 to 200,000 trekkers every year. Other competitors include Ladakh, Darjeeling and Sikkim of India, and Bhutan. All of these destinations offer challenging outdoor adventure travel for people seeking excitement in remote localities, and GB will need to find ways to bundle tourist attractions to remain competitive. The establishment of four national parks (covering more than 9 percent of the total GB surface area - Table 4.5) to protect and highlight the unique local biodiversity were positive steps, but demonstrated that community participation is essential for the success of this type of tourism (Box 4.3).<sup>64</sup> The World Wildlife Fund helped establish the Gilgit Information Center and is supporting the development of eco-tourism with efforts to build capacity, raise awareness, and promote related activities.

**Table 4.5. National Parks, by area (in hectares)**

NAs National Parks	Area (ha)
Central Karakoram National Park	973,845
Khunjarab National Park	227,143
Deosai Wilderness Park	363,600
Handrap National Park	51,800
Total Area of National Parks	1,616,338

<sup>64</sup> The biodiversity of the areas includes such animals as the Snow Leopard, Markhor, Ibex, Marco Polo Sheep, Blue Sheep, Brown and Black Bear, Musk Deer, Ladakh Urial, Woolly Flying Squirrel, Chukor, Ram Chukor and Snow Partridge, as well as a wide variety of economically important plants, such as Hippophae rhamnoides, Morchella spp., Valeriana jatamansi and Viola serpens (Stephen R. Edwards, Saving Biodiversity for Human Lives in Northern Pakistan, 2006).

### **Box 4.3. Ensuring Effective Community Engagement**

In the 1980s, the GoGB declared the entire area between the village of Khyber and Khunjarab Pasture, in Upper Hunza, a national park. The government took this decision without consulting the local communities who had used that area for grazing livestock in the summer and winter seasons. Soon after the declaration of Khunjarab National Park, the government again bypassed the communities by retaining all income generated from the fees for licenses issued for trophy hunting wildlife in the park. In response to this decision, local community members sued the government for the right to manage and derive benefits from the park's resources. The court determined that the communities should receive 80 percent of the total income earned from trophy hunting. Subsequently, the park authorities and the Khunjarab Village Organization (KVO) signed a memorandum of understanding giving KVO the authority to control and/or ban free hunting in the park. KVO established conservation committees in each village to protect wildlife and manage this vital natural resource. During the review period, the 15 V/WOs within KVO earned approximately US\$ 50,000 from trophy hunting fees and activities. The experience and confidence gained by local community members from participatory village-based institutions, supported by the AKRSP, empowered them to take charge of their local resources and increase the benefits to the local community.

4.81 Efforts to enhance trout fishing as a tourism activity are another example of trying to diversify the tourism product. Gupis, in Ghizer District, is known for trout but the absence of effective management and illegal fishing were endangering the stock. With financing from the World Conservation Union (IUCN) and the Swiss Agency for Development and Cooperation, a project was initiated aimed at ensuring the sustainable management and harvesting of trout resources. The project also sought to meet the broader goals of providing income earning opportunities and enhancing nutrition. Through the Khalti Social Development Organization, the local community was involved in the project from the beginning. Key outputs to date include the delivery of training in trout conservation and management to the local community, the development of proposals for reviewing some of the policies on fisheries (submitted to GoGB), and the organization of the first trout angling competition at Khalti Lake.

#### ***Cultural Activities***

4.82 GB has been influenced by various cultures and civilizations. Its location on the Silk Route made it a meeting place for traders and pilgrims, and also attracted emperors and conquerors from Central Asia and Persia. Its territory encompasses a large number of archaeological sites and historical buildings, reflecting this long turbulent history. These sites, together with the Silk Road connection, offer attractions to tourists and opportunities for strong branding of the region. In addition to the archaeological sites and monuments, there is a rich living heritage that encompasses a mosaic of ethnic groups, languages, dialects, cultural norms and traditions, folklore, handicrafts, and cuisine.

4.83 Currently, cultural tourism in Pakistan does not seem to play a role proportionate to its richness. Statistics provided by the MoT show that Lahore is by far the most visited location with 108,000 foreign visitors in 2006. Baltit Fort in Hunza and Shigar Fort in Skardu (which were successfully restored by the Aga Khan Cultural Services Pakistan (AKCSP)) were the 6<sup>th</sup> and 7<sup>th</sup> most visited historical places of Pakistan (Table 4.6). No museums or archaeological sites from GB are on the list of popular cultural heritage attractions. Although foreign visitors are usually a very low percentage of the total, Hunza has attracted more tourists in recent years, with foreign visitors accounting for around one third of the total in 2006.

**Table 4.6. Number of Visitors to Places of Cultural Interest ('000s)**

Location	2005			2006		
	Domestic	Foreign	Total	Domestic	Foreign	Total
Hunza	9.35	4.38	13.73	11.44	4.04	15.48
Skardu	3.90	0.25	4.15	0.36	0.35	0.71

4.84 The AKCSP is in the process of producing a complete inventory of cultural heritage sites in GB. The Northern Areas Tourism Department (NATD) has also prepared a proposal to UNESCO nominating the Hunza-Nagar Valleys as a cultural and physical landscape for World Heritage Site status. The valley is dotted with natural and cultural assets such as the magnificent Mount Rakaposhi (7788 m) and landmark monuments such as the Altit and Baltit Forts (Box 4.4). Traditional settlements such as Hispar, Ganish, Altit and Baltit villages, and cultural landscapes (such as the terraces built to reclaim land for agricultural use and integrated with complex traditional irrigation systems), offer a rich living traditional culture.

#### **Box 4.4. Baltit Fort**

The Baltit Fort was one of the first projects of the AKTC's Historic Cities Support Program.<sup>65</sup> Restoration was based on the premise that enhancing and promoting the cultural values of a living culture was important. Restoration of the Fort also needed to contribute to the economic opportunities for village residents and generate sufficient income to sustain its operation and maintenance costs.

In 2006 there were approximately 4,000 international visitors, mainly from Japan, Germany, France, UK and Italy. However, as visits are normally short in duration and expenditure limited to the entrance fee (300 rupees for international visitors), the project has yet to provide sufficient economic benefit to the local population. In the local bazaar, most of the products sold to tourists are imported from Punjab, China and Kashmir. To maximize benefits to the local economy, more locally produced goods will need to be sold.

### **Key Challenges**

4.85 GB faces a range of challenges in trying to expand the tourism industry. Managing security perceptions is crucial to attract tourists to GB, as evidenced by the collapse in arrivals following 9/11 and the renewal of conflict in Afghanistan, and the subsequent slow recovery. Security concerns are likely a bigger obstacle for foreign tourists, who are less familiar with Pakistan in general and GB in particular, raising the importance of building a larger domestic tourism base in the short-term. Beyond the security issues, which are simmering mainly in the rest of Pakistan and are beyond the scope of GB initiative, unreliable access, inadequate infrastructure, weak governance, and limited financial resources flowing into the sector are the key obstacles that need to be addressed if the sector is reach its promise.

#### **Unreliable Access**

4.86 Perhaps the biggest obstacle to further development of tourism in GB is the difficulty and unreliability of arriving to and departing from GB. There are four major gateways into GB: two by air – through Gilgit and Skardu airports, two by road (KKH) – from China through the Khunjerab pass and from Islamabad (though the former will remain blocked for sometime due to the Attaabad landslide (Box 3.1). Pakistan International Airlines (PIA) operates daily flights between Islamabad and Gilgit / Skardu. However, these airports and the passes the flights must traverse lack modern instrumental navigation

<sup>65</sup> Dider Lefort in AKTC (2005), Historic Cities Support Programme, Conservation and Development in Hunza and Baltistan AKTC p. 25.

facilities and depend on visual flight rules, resulting in frequent flight cancellations in inclement weather. On average, about 40 percent of the flights are cancelled every year and there are no international air links. Uncertainty over flight operations to GB is a major hindrance for tourists, especially for short-trip visitors who can ill afford to lose days on either end of the trip.

4.87 The road alternative is also hard. The KKH is considered an engineering marvel, but the trip between Islamabad and Gilgit takes 12-18 hours, and facilities for rest, food, sanitation and communication along the route are lacking. Construction is underway to improve the KKH, including building a new by-pass that would shorten the route by about 2 hours (see the discussion on transportation, Section 6.4 of Chapter 6), but the road journey is tough, and again discourages the potential shorter stay domestic tourists. Entry from China is hampered by the damage to the KKH and several bridges sustained as a result of the Attaabad landslide and subsequent inundation. Several years of effort may be needed to restore this link.

### ***Inadequate Infrastructure***

4.88 Tourist attractions in GB are spread out, requiring substantial travel by road, relying on a road network which has the typical characteristics of mountainous environments: most roads are not paved and become difficult in inclement weather conditions. The main road network is comprised of two arteries: the section of the KKH crossing GB in the south-north direction, from Chilas to the Khunjerab Pass, and the east-west road connecting the Ghizer district with Khaplu. The two cross each other not far from Gilgit. The trip from Skardu to Gilgit on this road takes approximately four hours, covering a distance of 220 kilometers, and more facilities are needed en route to enhance the travel experience.

4.89 There are an estimated 140 hotels of various grades with an overall capacity of 2,450 rooms in GB. More than 50 percent of this capacity is in Gilgit City, followed by Hunza, and Skardu. According to the MoT data, occupancy rates were 52 percent in Gilgit, 58 percent in Hunza, and, 72 percent in Skardu in 2007. Given the highly seasonal character of visits to GB, these figures are promising. However, the quality of the existing hotel stock is variable and the current hotel grading system requires further work and verification. According to available information, the majority of the hotels are priced below US\$30 per double room/night. Hotel categories range from small “boutique” hotels housed in renovated princely palaces such as Shigar Palace (Skardu), and Khaplu Palace (Khaplu) to the Serena chain (part of the Aga Khan Fund for Economic Development) with one hotel in Gilgit and one in Hunza (closest to international standards with prices ranging from US\$35 to US\$200). On the budget end, the Pakistan Tourism Development Corporation Motels operate 6 motels in Gilgit, Skardu, Hunza, Sust, Astore and Gupis with prices ranging from US\$10 to US\$35.

4.90 Package tours in the region would be a great opportunity for adding value and spreading the economic benefits of tourism. In Nepal for example, the availability of cheap domestic flights helps the industry promote package tours around the country, often combining trekking with visits to the relatively well-developed tourism centers of Kathmandu and Pokra, as well as safari trips in leading national parks in the South. In GB, however, mountaineering and trekking activities are centered mainly in the districts of Baltistan and Hunza, and in the cities of Gilgit and Skardu—areas are too far apart to cover in one short trip. This lack of concentration means that it takes more time for entrepreneurs to recover their initial investment, undermining the incentive to invest more in tourism facilities.

### ***Weak Administration of the Tourism Sector***

4.91 There is an urgent need to strengthen the institutional structures for managing the tourism sector and improve coordination across departments and other stakeholders. At the national level, the federal MoT



is responsible for the formulation and implementation of policies, rules and regulations through the Department of Tourist Services. It currently grants permits for trekking and mountaineering in GB, collects royalties, controls licensing of tourist services, compiles tourism statistics, and performs all other functions. The KAGB also takes on the policy, administration and development functions in GB. The tourism sector in GB is very dependent on the center for two reasons. First, the issuance of permits, collection of fees, and debriefing of mountaineering expeditions is currently done in Islamabad (a key recommendation of the Tourism Development Plan – 2007-2011 (TDP) is to move the issuance of mountaineering and trekking permits from Islamabad to GB). Second, there is no institutional set-up for tourist visas to be issued in Gilgit or Skardu, which means that no direct international flights are allowed into GB and all international tourists need to pass through other gateways in Pakistan.

4.92 At the local level, the Northern Areas Tourism Development Board (NATDB), established in 2000, formulates policies, regulations and plans for sustainable tourism, promotion and marketing of tourism products, and the conservation of natural and cultural heritage in GB (Box 4.5). The Northern Areas Tourism Department (NATD) looks after tourism affairs, with the approval of the NATDB. It has its headquarters in Gilgit, augmented by peripheral offices in all district capitals. The Department of Archaeology has a regional office in Gilgit with responsibility for the entire GB. As noted above, the Northern Areas Transportation Company (NATCO) has the mandate of developing and sustaining a public road transport system in GB, including passenger and cargo transport. It operates a fleet of three hundred vehicles, including 160 passenger vehicles. The company operates routes in all parts of the country, including Karachi to the South, Kargill and Siachin sectors, difficult areas like Shamsal valley, and outside Pakistan to the city of Kashghar in China as well as several other destinations in Central Asia.

4.93 Overall, there is substantial scope for enhancing the management of the sector. There is also demand from the local Balti authorities—who feel left out from the planning and decision making processes—to devolve greater authority to lower levels in order to facilitate tackling problems arising at the sub-regional level. The effectiveness of greater devolution in enhancing the responsiveness of government will depend on ensuring adequate capacity in the concerned agencies.

#### **Box 4.5. Tourism Planning Framework**

The planning framework is based on two key documents. The National Tourism Policy lays out the federal policy, developed by the Ministry of Tourism in 1990 and updated in 2007. The Tourism Policy of GB document was launched by the NATD, recognizing the potential of the sector to contribute to economic growth, employment and the improvement of the livelihoods of local communities through the sale of local goods and services. It also identifies geographic inaccessibility, the risk of disaster (both man-made and natural), the negative perception about the country, the weak institutional and regulatory framework, and the lack of research, information and knowledge as major constraints to the tourism sector's growth in GB. The policy seems adequate to provide broad guidelines to the government and other stakeholders aimed at ensuring sustainable tourism development.

Finally, there is the TDP for Gilgit-Baltistan prepared and implemented by the NATD. The mission statement is a call to “Bring the World to Northern Areas; take the Northern Areas to the World.” The plan outlines 78 development projects, with an estimated expenditure of 1,622 million rupees (approximately US\$22 million) over five years. In general, the actions envisaged by the TDP are in line with the guiding principles set by policy. Where the planning mechanism falls short is in the lack of an intermediate planning phase between the broad guidelines established by the TDP and the specific action projects outlined by the TDP. Without a clear strategic framework, it is difficult to evaluate and support the actions foreseen by the TDP. This intermediate link could take the form of a strategic plan prepared following a broad participatory approach. It would seek to ensure coherence and provide a medium-term vision for implementation through short-term action plans of 3-5 years. The plans would need to provide for a mechanism of monitoring and evaluation based on measurable goals and objectively verifiable indicators. The NATD would take the responsibility for collecting, analyzing and sharing tourism information.

### ***Limited Public Spending on Tourism***

4.94 Revenues generated by tourism are collected from a variety of sources: license fees of travel agencies and tour operators, taxes on hotels and restaurants, entertainment taxes, royalty fees and environment fees for climbing expeditions, trekking fees, fines on violations of trekking and mountaineering rules, and GST on air tickets. These revenues go to the national government treasury, while the requirements of the tourism sector are met by the annual budget. There appears to be room for increasing the revenues from tourism (especially user fees), which could be used to finance the implementation of key actions envisaged by the TDP regarding infrastructure, superstructure, training and human resource development, safety and security, conservation, and product diversification.

### **Looking Ahead: Policy Options**

4.95 In considering policy initiatives that would help the tourism sector become a driver of broad based private sector led growth, several issues stand out, centering on improving access, developing the tourism product, and strengthening marketing efforts.

#### ***Improving Access***

4.96 Inadequate air and road access to the region is a critical constraint to the development of tourism and the substantial investments needed to alleviate this problem may not be possible in the short run. Access could still be vastly improved, however, through gradual institutional reforms and incremental public investments.

- **For immediate action:** Implement the transport sector recommendations for improving local air services and flight reliability, including following through on the proposed all weather enhancements. This would improve the attractiveness of the region to domestic tourists on short duration trips. Improve roadside facilities to make travel by road more comfortable.
- **For pursuit over the medium-term:** Develop a network of small airfields and small aircrafts, with Gilgit and Skardu acting as operational hubs, facilitate the use of helicopters for aviation within GB, provide an enabling environment for local private operators to engage in GB aviation.

#### ***Building the Tourism Product***

4.97 Developing the potential of the tourism sector will depend on building up the product portfolio by adding niche activities to the existing attractions of mountaineering, trekking and general culture/nature-based visits. These could include health and wellness, outdoor sports such as rafting, skiing and paragliding, and other nature-related activities such as bird watching.

- **For immediate action:** Develop complementary activities at tourist sites such as dining, shopping, handicrafts/souvenirs, fishing and adventure sports. Maximize the involvement of the local community in providing services. A useful start could focus on developing an area-based pilot project in Central Hunza or Central Hunza-Nagar for a tourism / culture / environment district, using a public private partnership approach with strong community participation.

- **For pursuit over the medium-term:** Seek to attract, train and retain the required human capital for the sector. Establish an effective hotel grading system and use it as a device to ensure the quality of accommodation and to encourage owners of lower rated facilities to upgrade their properties. Encourage and stimulate the private sector to invest in the development of tourism facilities.

### *Enhancing Marketing*

4.98 Even before the present outbreak of violence in Pakistan, GB was poorly marketed both inside the country and abroad. Positioning GB to attract more tourists when circumstances improve hinges on addressing this issue with all due haste.

- **For immediate action:** Develop a marketing “brand” for GB to try and mitigate negative perceptions, focusing on a concept such as closeness to China (instead of Afghanistan), or being on the Silk Route. Sub-brand different valleys as separate products with specificity. This could be one of the themes developed in the recommended Hunza Valley pilot project. Acceptance to the UNESCO World Heritage list would help significantly. Review and improve the Website for better branding and coordination with various other forms of media exposure.
- **For pursuit over the medium-term:** Seek financial resources to embark on a significant marketing campaign, both within Pakistan, and abroad.

## 4.5. Bolstering Trade

4.99 The GB region lies on one of the ancient silk routes linking China with Persia and beyond, and successive intergovernmental efforts between Pakistan, China and the Central Asian Republics (CARs) have sought to boost trade and build related infrastructure. The KKH is the essential link, enabling substantial trade volumes to flow overland. Major investments have also been made in the Sost Dry Port (SDP), which lies on the KKH about 90 kilometers from the border with China, and provides facilities for transshipment and inspection. The customs officials are mindful of the importance of minimizing transit times, and other policy initiatives, including the trade agreement between Pakistan, China, Kazakhstan and Kyrgyzstan, seek to promote regional integration and trade. There is significant potential for expanding trade through the GB corridor and deepening connections with other parts of the economy, like retailing in the cities or other value added activities, boosting private sector led growth.

4.100 Despite the huge infrastructure investments in the KKH and Sost, and having found the political consensus among central Asian neighbors for trade liberalization, the sector faces major hurdles. Existing levels of trade remain limited, and trade patterns indicate that Pakistan as whole and GB as a border region are not benefiting as much as hoped from the route in terms of developing related value added activities. The annual closure of the KKH for 3 months due to weather has now been extended indefinitely as a result of the Attaabad landslide and inundation, which have buried, submerged or damaged about 18 kilometers of the KKH and 5 bridges in Hunza (Box 3.1). Beyond the KKH, there are virtually no other links (political barriers block trade to the south with India, and physical barriers block trade to the northwest through the Wakhan corridor in Afghanistan). The low population density and lack of scale in economic activity on both sides of the Pakistan-China border means that the value of welfare benefits in absolute terms from trade through exports and increased retailing of imported goods is likely small. The cost of transportation remains high and the road and communication infrastructure are unreliable. Despite trade agreements, agricultural produce, the goods from GB most likely to find markets in China face tariff and non-tariff barrier, such as the prohibitive quarantine requirements on fresh agricultural products. On the fiscal side, the authorities need to mobilize more revenue from trade and reinvest it to improve local facilities. Finally, the role of CSOs and other stakeholder groups needs to be strengthened from their current marginal role.

4.101 Expanding trade opportunities through the GB corridor and enhancing greater retention of economic value in the local economy will require restoring the KKH through the landslide area, following through with the ongoing upgrade of the KKH and communication infrastructure, as well as implementing other investments. Beyond overcoming the Attaabad landslide, items that should be high on the policy agenda include: (i) improving the infrastructure and performance of the SDP, (ii) removing policy impediments on cross-border transport and logistics, (iii) exploring opportunities for value addition and exporting local products (such as fruits) by lowering trade barriers, and (iv) strengthening import fed retailing through the removal of undue taxes on local imports and the possible establishment of a border market. These measures will also encourage greater regional integration, a key national development objective of Pakistan as a whole.

### Development Performance to Date

4.102 The scale of existing trade through the Pakistan-China border at Khunjerab pass along the KKH corridor is very limited.<sup>66</sup> During the fiscal year 2007-08, only 4 percent (Rs 3.1 billion) of Chinese

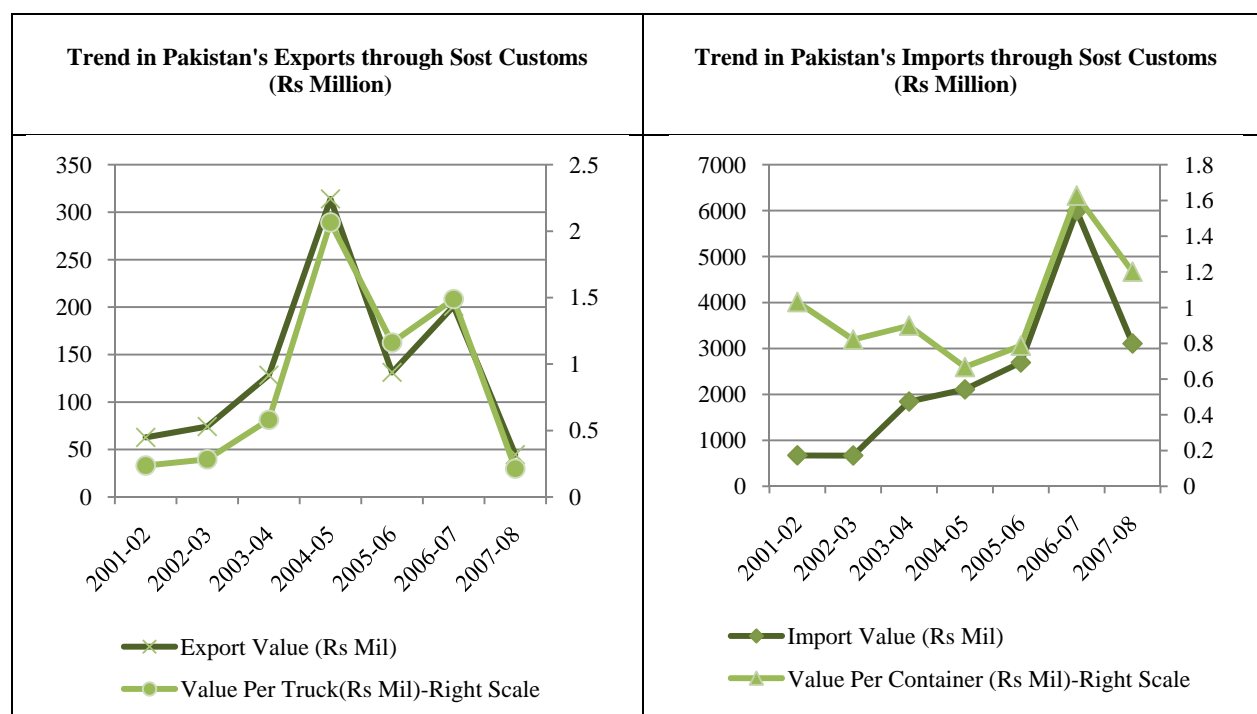
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<sup>66</sup> As noted above, the KKH runs approximately 1,200 km from Kasghar in Xinjiang Autonomous Region of the PR China via the Kunjerab Pass (the highest international border crossing and paved road at 4,693 metres (15, 397 feet)) to Gilgit in GB and on to Havelian (about 100 km from Islamabad).

imports to Pakistan came through the GB corridor. The rest made their way through other routes, with the ports of Karachi being the dominant entry point and accounting for 75 percent of all Chinese imports. In terms of Pakistan's exports to China, shipments through GB constituted only 1.5 percent of all exports, while 83 percent of exported goods left from Karachi.

4.103 In recent years, the level of trade between Pakistan and China on the GB route has declined sharply (Figure 4.5). Official statistics show that the nominal value of trade through the GB corridor almost halved from Rs 6.19 billion (about US\$100 million) in 2006-07 to Rs 3.15 billion in 2007-08. The decline of exports has been particularly steep, falling from a high of Rs 314 million in 2004-05 to Rs 45 million in 2007-08. The fall is reflected in a reduction in the number of trucks plying the KKH on the Pakistan side, from around 30 a day in 2006-7 to less than 20 a day last year. The drop has also coincided with a reduction in the sophistication of exports, as reflected in their decreasing unit value. The vagaries of trade through GB are associated with several key developments: the harmonization of customs duties at Sost relative to other entry points into Pakistan; the revaluation of Chinese RMB; and the Chinese government's decision to temporarily close the border at Khunjerab pass for security reasons ahead of the Beijing Olympics in 2008. Trade through the Kunjerab pass will have come to a virtual standstill in 2010 as a result of the Attaabad landslide, and it may take some time before trade possibilities are restored.

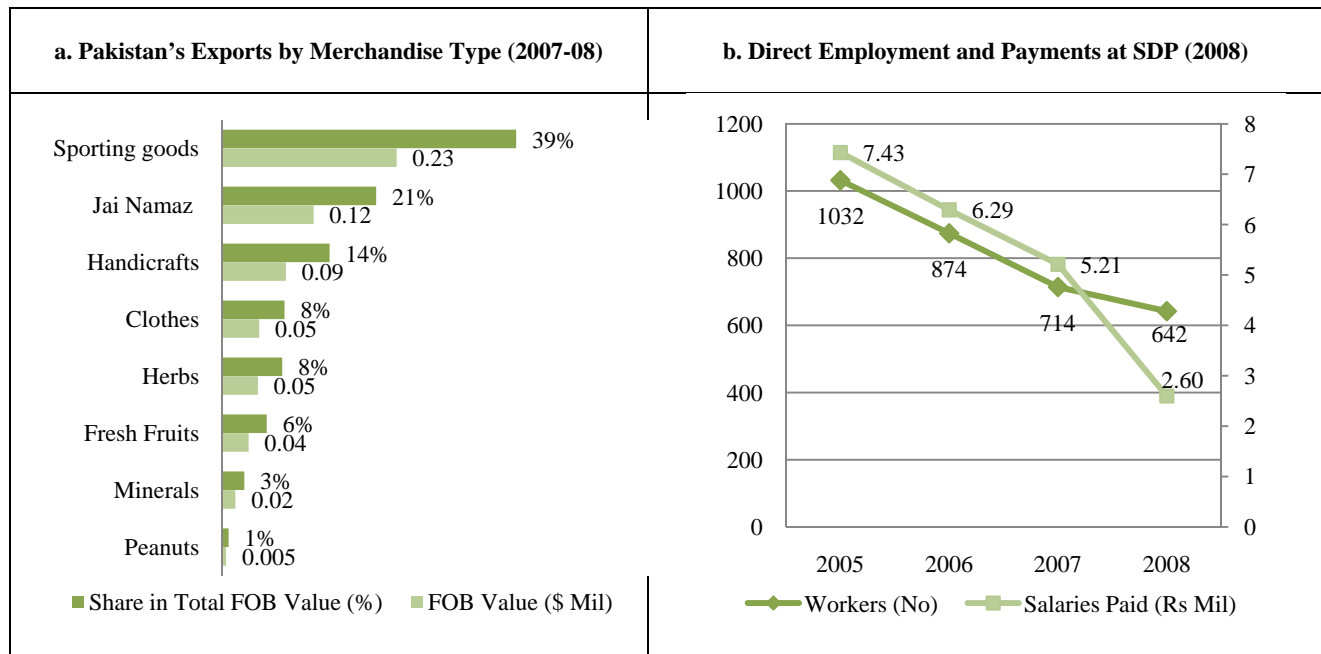
**Figure 4.5. Trends in Pakistan's Exports and Imports through Sost Customs**



Source: Sost Customs Records.

4.104 The direct impact of existing Pakistan-China trade on the local economy does not seem to be very large. Even the meager Pakistani exports that are routed through Sost originate mainly from outside GB. As shown in Figure 4.6a, close to 70 percent of exports are made up of products like *Jai Namaz* (prayer mats), sporting goods, clothes and peanuts that are not produced in GB. The remaining 30 percent of exports constitute products like herbs, fresh fruits, minerals and handicrafts, which are produced in GB, but anecdotal evidence indicates that actual exports originating from within GB are negligible.

**Figure 4.6. Pakistan's Exports and Direct Employment at SDP**



Source: Customs PRAL Listings; Sost Dry Port.

4.105 Imports from China seem to have much stronger linkages with the local economy. About 40 percent (Rs 1.24 billion in 2008) of total imports are destined for retailing and consumption within GB. Anecdotal evidence suggests that these imports have created new retailing and employment opportunities in some parts of GB, particularly in Gilgit town. Many women have been empowered economically by running small shops. Moreover, growing imports from China have also increased choices for local consumers by providing a wide variety of consumer goods at more affordable prices, though concerns have been raised about the recent decline in imports with the harmonization of import tariffs between the GB route and other entry points to Pakistan, and its impact on the competitiveness of import based local retailing.<sup>67</sup>

4.106 The reduction in trade on the GB corridor has also had a negative impact on employment at the SDP. The number of workers at the SDP dropped by 34 percent, from 1032 in 2005 to 642 in 2008 (Figure 4.6b). Moreover, workers' remuneration showed an even sharper decline of 65 percent, dropping from a high of Rs 7.4 million in 2005 to Rs 2.6 million in 2008. It is hoped that the signing of the FTA between Pakistan and China and other efforts to liberalize and expand trade to neighboring CARs will help reverse the trend (Table 4.7 lists the key milestones), but the closure of the KKH due to the landslide will have a dramatic impact over the next few years, necessitating some social protection measures to help workers transition to other income earning activities.

<sup>67</sup> In addition to businesses around the old Sost customs area being affected by the relocation of customs to Sost Dry Port, they are also affected by these trends and have faced a major decline in activity.

**Table 4.7. Key Trade Milestones between the Governments of Pakistan and China**

Timeline	Key Event
1960s	Agreement between Pakistan and China to Construct the Karakoram Highway (KKH).
1967	Border Trade Agreement between Pakistan and China to revive old Silk Route trade links.
1969	Northern Areas Trading Cooperative Limited (NATCL) also known as China Trade was established for border trade.
1974	Northern Areas Transport Corporation (NATCO) established with transport monopoly for GB
1978	Completion of the KKH (after 18 years of work). The highway is also known in China as the Friendship Highway.
1984	Customs Act (1969) was enforced throughout the Northern Areas and Pakistan Customs Station was established in Sost.
1995	Transit Trade Agreement was signed between Kazakhstan, Kyrgyzstan, China and Pakistan.
2004	Pak-China Sost Dry Port Company registered as a joint venture between Sinotrans (Chinese state owned transport company in the Xinjiang region) and the Silk Route Dry Port Trust (SRDPT).
2005	Silk Route Dry Port also known as Sost Dry Port was made operational (Phase 1) and formally inaugurated in 2006.
2006	Memorandum of Understanding was signed between Pakistani and Chinese Authorities to upgrade KKH.
2006	Free Trade Agreement (FTA) signed between Pakistan and China.

*Source: Background Papers on Cross Border Trade and Sost Dry Port.*

## Key Challenges

4.107 There are a number of factors that make it harder for the GB to realize anticipated gains from trade. These are associated with the small scale of economic activity in the region, the elevated cost and unreliability of transport, the gaps in the trade facilitation infrastructure, the restrictions on cross-border movements, unfavorable tax arrangements, and the need for more CSO engagement in the sector.

### *Small Scale*

4.108 The low economic and population density of the region translates directly into lower potential for exports and imports, since most local production is aimed at subsistence consumption, which effectively makes the tradable goods sector very small. The marketed surplus from crops and fruits, for example, is about 15 percent (as noted above), and other tradable sectors, such as manufacturing and minerals, either lack potential or remain highly underdeveloped.<sup>68</sup> Even in promising sectors, like horticulture, where climate and physical geography offer some advantages, production remains fragmented and lacks the required standardization to meet more demanding export requirements.<sup>69</sup> The result is that exports from GB to China and the CARs are almost non-existent. Addressing the issues of scale and standardization in the few products with good export potential will depend on aggregation and

<sup>68</sup> See chapter 3 and the section above on minerals.

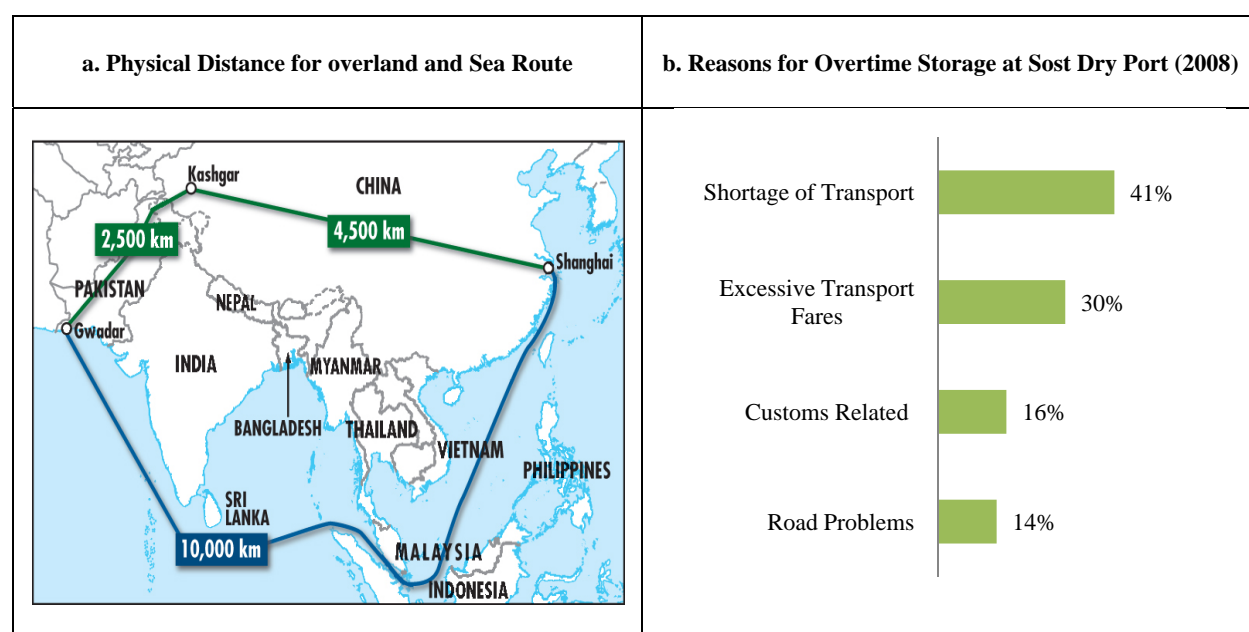
<sup>69</sup> Many parts of GB offer good prospects for organic agriculture with an endowment of naturally fertile soil, clean melt waters off of the Karakoram and Pamir mountains, and a dry climate.

further value addition in the form of grading, packaging, and labeling to meet the quantity and quality specifications of export markets. Import volumes are also very small, but their impact is already visible in terms of stimulating employment in local retailing and offering consumers more variety at competitive prices. The NLI market in Gilgit town is a good example – in addition to catering to the needs of local consumers, it also attracts a large number of non-local buyers. A dynamic and competitive retailing sector also has positive effects on other sectors, like tourism.

### ***Transport: High Cost and Low Reliability***

4.109 Although the Euclidean distance between Western China and Islamabad is thousands of kilometers shorter along the KKH, the cost of transport is much greater. The direct costs of shipping a typical container from Western China to Rawalpindi in Pakistan through GB is about \$10,000, compared to between \$3,000-4,000 for traversing China by land and then continuing by sea (Figure 4.7a). This is very high, especially when over 90 percent of consignments shipped through the border have a declared value of less than \$20,000. This high cost of transport is due to a combination of inter-related factors, primarily harsh geography and low demand, which limit the scope for scale economies and are exacerbated by bilateral restrictions on cargo shipping and handling noted below. It is also worth noting that the Kunjerab pass is completely closed for three months during the winter due to snow and ice. With the Attaabad landslide, this closure has been extended indefinitely, and major efforts will be needed to surmount the blockage over the medium-term. The landslide aside, the main advantage to the GB route is time (15 days compared to 45 days by sea) as well as fewer and less cumbersome controls. Hence, processing time through Sost is critical. The authorities are mindful of this, and customs clearance usually takes less than 3 days. Some consignments take longer, however, mainly due to the non-availability of transport. About 41 percent of survey respondents cite the shortage of trucks as the cause of delays, while only 16 percent of respondents highlight customs issues (Figure 4.7b).<sup>70</sup>

**Figure 4.7. Physical Distances and Reasons for Overtime Storage at Sost Dry Port**



Source: Background Paper on Cross Border Trade; Background Paper on Sost Dry Port.

<sup>70</sup> Pakistani traders also ranked road condition as the biggest problem. See table 47 in the background paper on Sost Dry Port.



4.110 The overall costs associated with using the GB corridor have a direct bearing on its catchment area. Hence, virtually all of China's exports through Sost originate in Xingjiang province, the far western province of China bordering on GB, and they find their way south mainly to Rawalpindi.<sup>71</sup> Hence, goods produced in China's coastal cities and sold in Karachi will not be travelling through GB. It will be important to maintain the catchment area in China, reaching to Urumqi (the capital of Xinjiang) in China, and extending to Lahore in Pakistan. It is worth noting that since 1999, Beijing has been implementing the West China Development Program, which aims to boost the region's growth, and has substantial spillover effects in GB. Sustaining investment in connective infrastructure is essential to bolster trade along the GB corridor.

4.111 Restoring, maintaining and upgrading the KKH, are essential to increase the efficiency and reliability of road communication, as well as expand the volumes of cross border trade on the GB corridor. An overwhelming majority of Chinese drivers termed travelling to Sost on the KKH as difficult compared to other routes and 60 percent cited poor road conditions as the major issue. Fortunately, in June 2006 an MoU was signed between the Pakistani Highway Authorities and China's State-owned Assets Supervision and Administration Commission (SASAC) to expand the paved width of the KKH from 6.1 to 7.5 meters, significantly boosting carrying capacity, speed and safety (Box 6.5 in the section 6.4). Following through with this project will be important to lowering transportation costs and increasing the use of the KKH. Another notable initiative under discussion that would impact the likely traffic on the KKH is the possibility of linking the KKH at Havelian (north of Islamabad) to Gwadar port on the Arabian Sea with a new a rail line (though such plans will have been setback a few years by the Attaabad landslide).

### ***Trade Facilitation Infrastructure***

4.112 The Sost Dry Port (SDP) is a critical part of the trade facilitation infrastructure of the GB corridor, but has several important deficiencies (Box 4.6). Electricity to the SDP is available for only part of the day, provided by a small generator. Key communication facilities such as internet and fax are not available (the only exception is the Pakistan Customs office which has a dedicated wireless connection with the Customs Board of Revenue in Islamabad). Specialized equipment for loading and unloading cargo is not available, and there is no storage facility to safely store cargo that is delayed due to customs inspection requirements. Laboratory facilities for testing the imported goods for their compliance with the national standards are lacking. A shortage of trucks and high transport costs are major impediments. The financing of trade is also complicated. The National Bank of Pakistan has a branch located just outside the SDP, but it does not provide crucial settlement services such as the provision of Letters of Credit or revolving credits. Absent formal settlement services, traders on the GB corridor rely on alternate mechanisms like *Hawala*, even though these are not authorized by the GoP.<sup>72</sup>

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<sup>71</sup> The survey was conducted as part of background research for the trade chapter with logistical support from AKRSP during November-December 2008. See the background paper Sost Dry Port: Contribution to the Development of Pakistan Gilgit-Baltistan: Opportunities and Challenges (tables 13 and 16). Note that 66 percent of export consignments were manufactured in two major cities of Xingjiang—Kashgar and Urumshi.

<sup>72</sup> See the background paper on the Sost Dry Port (including the sections that discuss physical aspects and rapid assessment of the facilities available).

#### **Box 4.6. The History of Sost Dry Port (SDP)**

The idea of establishing a dry port at Sost came mainly from the communities of upper Hunza who collectively formed the Silk Route Dry Port Trust (SRDPT) in 1999 with the aim of operating a dry port to facilitate customs clearance and transshipment activities. By December 2001, the Trust was able to persuade the Federal Bureau of Revenues (FBR) to issue the official notification favoring the establishment of a dry port at Sost and operate it as a joint venture with the private sector. The SRDPT was able to acquire a 99 year lease for 26 acres of land worth Rs 21 million, but it lacked the required capital to construct and equip the proposed dry port. Ahead of the official notification from the FBR in 2001, the Trust started seeking partners and was able to sign a Letter of Intent to form a joint venture with a Chinese logistics company, Sinotrans Xinjiang Jiuling Transport & Storage Co Ltd, which led to a joint venture agreement in 2002. In 2004, Pakistan-China Sost Port Company (PCSPC) was formed and registered as a 60:40 joint venture company between Sinotrans and the SRDPT. Under a Build, Operate and Transfer (BOT) agreement, Sinotrans controls the management of the dry port for a period of 10 years (until 2014). Sinotrans is also responsible for training Pakistani staff.

The PCSPC envisaged completing the construction of physical facilities in three phases. The construction of phase one was completed in autumn 2004 and the SDP was made operational in 2005. Currently, the port handles transshipments in the range of 50,000-80,000 tons, which is expected to reach 300,000 tons at the completion of the third phase. Currently, the SDP lacks reliable electricity and water supply & sanitation facilities, as well as sufficient storage space. Apart from the need to continue improving the physical facilities, the SDP also needs to address serious administration challenges related to charges of corruption and mismanagement, and subsequent managerial changes.

*Source: Background Paper on Sost Dry Port.*

4.113 Given these circumstances, there is scope for improvement at the SDP. In surveys conducted at the end of 2008, about 80 percent of the interviewed clearing agents rated SDP facilities as poor, and 50 percent identified the absence of basic facilities like electricity, drinking water and toilet facilities as major problems.<sup>73</sup> Interviews with Chinese drivers highlighted the poor performance of unskilled labor at the SDP as a major cause of concern. Continuing to upgrade physical infrastructure, expanding the provision of basic services like electricity and communication facilities, and investing in the skills of cargo handlers are crucial to increase the effectiveness of the SDP.

#### ***Restrictions on Cross-border Movements***

4.114 There are several restrictions at the border that appear to be unduly hampering trade. Starting with ad hoc customs clearance arrangements in the early 1980s which entailed customs officers from Islamabad visiting Gilgit to clear the imported goods on the premises of the Northern Areas Trading Corporation Limited (NATCL), Pakistan Customs operations have shown significant improvements in recent years. Key developments include the harmonization of the tariff rate at Sost with those applied at other entry points of Pakistan, the computerization of appraisal and valuation procedures, and a general expansion in facilitation infrastructure due to the opening of the SDP. These improvements have helped reduce the customs clearance time for import consignments to less than three days, as noted above. Similarly, the collection of customs duties at Sost seems to be more efficient compared with other ports. Duties as a share of imports coming through GB corridor was 16.6 percent in 2007-08 compared to 11.2 percent on those shipped through ports in Karachi (Table 4.8). If the average tariff rates on goods imported through both channels are broadly the same, the higher collection rate in GB implies greater efficiency.

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<sup>73</sup> See the background paper the Sost Dry Port (results of interviews).

**Table 4.8. Pakistan Imports from China July 2007- June 2008 (in million Rs)**

Imports from China Through	Import Values	Customs Duties	Customs Duties/ Import Values (%)	Sales Taxes	Sales Tax/ Import Value (%)	Income Tax *
Sost dry port	3,106.3	498,6	16.6%	187.5	6%	87.9
Karachi ports	55,261.0	6,206,0	11.2%	5,160.0	9%	96.2
Total Imports from China	73,360.0	8,056,0	11.0%	6,869.0	9%	96.7

Source: Customs Board of Revenues, Islamabad. \* The accuracy of figures is disputed by Customs.

4.115 In order to try and enhance the competitiveness of the Sost route, the authorities need to continue trying to address two key concerns of traders – the time taken for clearance and damages during inspection. While most of the clearances take place in less than 3 days, as noted above, more effort is needed to bring this down to the official policy goal of 24 hours. Similarly, interviews with clearing agents at the SDP indicate that damage to merchandise during customs inspection and handling was a major concern. Pakistan Customs also need to establish laboratory facilities for phytosanitary inspections to ensure compliance with national standards.

4.116 Movements in the other direction, from Pakistan into China, appear to face more issues. A key concern is the high tariff and non-tariff barriers (NTBs) imposed by China on farm products despite the FTA between China and Pakistan. For example, apricots—one of the major fruits produced in the region—face tariff rates of 25 percent, and strict quarantine measures enforced by the Chinese quarantine agency, AQSIQ, increase the time to market and cause spoilage. Given the areas of complementarity between GB and China and the CARs (Table 4.9), these restrictions penalize GB unduly, and negotiating reductions in tariffs and NTB barriers for local products of export potential remains a key priority.

**Table 4.9. Complementarities Between Pakistan Gilgit-Baltistan and Xinjiang Province**

Country	Major Products	Major Exports	Major Imports	Trading Partners
<b>Xinjiang, PRC</b>	Coal, petroleum, machinery, building materials, textiles, sugar, paper, leather, cotton, corn, sugar beets, animal husbandry, mineral extraction.	Sugar, maize, tomato ketchup, pears, apple, grapes, hops, cotton, sheep's casings, wool, garments, carpets.	Steel products, chemical raw materials, fertilizers, building materials, food items.	Kazakhstan, Uzbekistan, Kyrgyzstan, Russia, Ukraine, Inland PRC.
<b>Gilgit-Baltistan, Pakistan</b>	Medicinal plants, pine nuts from chilgoza, apricots, cherry, apple, barley, potatoes (seed and table), peas, tomato, onion seed.	n.a.	n.a.	n.a.
<b>Kazakhstan</b>	Wheat, barley, meat, wool, metallurgy, textiles, machines, petrochemicals.	Oil, gas, coal, nonferrous metallurgy, grain, garments, footwear.	Machinery, oil, gas, processed food, beverages, ferrous metallurgy.	Russia, Ukraine, Uzbekistan, Kyrgyz, PRC, Germany, Sweden, Switzerland.
<b>Kyrgyzstan</b>	Tobacco, livestock, wool, metallurgy, agro-processing, electronics, textiles, sugar.	Agro-machinery, wool, tobacco products.	Oil, gas, wheat, processed food, machinery, chemicals, light industrial products.	Russia, Ukraine, Kazakhstan, Kyrgyzstan, Germany, Bulgaria, Czech and Slovak Republics, Xinjiang, PRC.
<b>Uzbekistan</b>	Cotton, fruits, vegetables, textiles, cotton harvesters, textile machinery, metallurgy.	Cotton, gold, gas, fertilizers, light industrial goods.	Machinery, oil, gas, chemicals.	Russia, Ukraine, Kazakhstan, Kyrgyzstan, Switzerland, South Korea, Turkey, Xinjiang, PRC.

Source: ADB, 2003; Northern Areas Private Sector Development Report 2008.

4.117 Another key issue is the increased transport expense associated with trucking. The bilateral border trade agreement between China and Pakistan (1967) allows Chinese cargo trucks to transport consignments as far as Sost, while Pakistani trucks can carry goods up to Kashgar in Xingjiang. However, the existing cross border transport arrangements oblige the trucks from either side to return empty on their way back. This inefficient arrangement only adds to transport costs with little real benefits or protection for Pakistani transport, since Pakistani exports to China through GB corridor are miniscule anyway.<sup>74</sup> Moreover, transport from the Pakistani side is monopolized by the state-owned NATCO, which charges higher fares and is uncompetitive compared with Chinese freight carriers that are more efficient due to their better condition and larger size. Allowing Chinese trucks to return loaded would help Pakistani exports in two ways: it would lower the cost of transportation, and perhaps more importantly, it could open new markets, as the Chinese freight forwarders then have an incentive to use their local knowledge and market linkages to find buyers in their domestic markets for Pakistani goods. Allowing Pakistani trucks to transport goods from China to GB would also encourage the modernization and development of a competitive truck fleet in GB.<sup>75</sup>

### ***Fiscal Issues***

4.118 The existing tax collection practices at Sost have important implications for GB. Several additional taxes are collected at Sost, including sales tax, and income (withholding) tax. A curious feature is the collection of two additional taxes of 0.5 percent of assessable value each, for the Kohistan Development Fund and the NWFP Fund. These taxes are in addition to the regular customs duties levied on imports, and apply even to merchandise that stays in GB. The practice of collecting tolls for the passage of goods through NWFP has drawn a lot criticism from local stakeholders, mindful that no such taxes are collected for GB. While the exclusive fiscal dependence of GB on the federal government is well recognized and accepted, efforts are warranted either to collect similar taxes for GB or to the extent feasible, reduce the additional tax burden on the GB corridor which already faces many cost disadvantages. Funds raised from trade could then be reinvested to foster more dynamism.

### ***The Need for Greater CSO Engagement***

4.119 The trading sector could benefit from increased CSO involvement. The Northern Areas Chamber of Commerce (NACCI), whose management is dominated by businessmen dealing with cross border trade, provides a very narrow range of facilitation services. The only noteworthy service is the facilitation in obtaining one year multiple-entry Border Passes at a discounted rate of Rs 2,300 (the usual fee is Rs 8,000) from the GoGB.<sup>76</sup> The NACCI lacks the capacity and initiative to provide other value added services such as building market linkages and publicizing market information. Similarly, the CSOs like AKRSP and KADO that have been working to boost productivity in agriculture and other local enterprises have not paid sufficient attention to linking their grassroots efforts to emerging business opportunities offered by the export markets in China and the CARs. There are some encouraging examples of CSO fostered initiatives, like the Mountain Fruits Private Limited (Box 4.1 in Section 4.2), which has tapped into export markets as far away as Europe. Lessons can be learned from these local initiatives and similar efforts in other parts of the world to enhance the exportability of local products.

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<sup>74</sup> The arrangement is not advantageous to Pakistan. The number of Chinese trucks (with an average payload of 20 tons) that enter Pakistan up to Sost is at least ten times that of Pakistani trucks (with an average payload of 8 tons entering China up to Kashgar).

<sup>75</sup> The vehicles operated by NATCO and in general use along the Sost corridor are aging and have a maximum payload of 12 tons. These trucks are unable to compete with large Chinese trucks with containers as part of the body that can carry up to 25 tons.

<sup>76</sup> Background paper on Private Sector Development in Northern Areas.

Strong collaboration between the GoGB, NACCI, and CSOs is necessary to boost production and trade facilitation in key sectors like fruits, handicrafts and minerals.

## **Looking Ahead: Policy Options**

4.120 The highest priority will be the restoration of the KKH through the landslide area, though this will depend on factors outside the authorities' control, especially the length of time for the hydrology of the area to return to some measure of normalcy, which would enable reconstruction work to begin. Beyond the landslide, attaining the fuller potential of trade hinges upon several broader developments, like upgrading of the KKH, or promoting the regional integration of Pakistan, China, and the CARs. Still, there are useful steps open to GB stakeholders. These include creating an enabling environment for trade and investment, enhancing trade facilitation at the SDP, and exploring export opportunities for local products from GB. Reaping the benefits of trade will boost value added, expand income earning opportunities, and spur private sector led growth.

### ***Creating an Enabling Environment for Trade and Investment***

4.121 Developing an overarching policy and strategy to boost trade and investment in GB is necessary to stimulate concerted efforts on the part of all stakeholders.

- **For immediate action:** Develop a trade and investment policy in close consultation with the private sector to help identify and prioritize policy actions in the trade sector.
- **For pursuit over the medium term:** Establish a Department of Trade and Commerce to create the capacity in the public sector needed to harness the benefits from emerging cross-border trade and investment opportunities.

### ***Improving Trade Facilitation through Sost***

4.122 Improving customs and cargo handling at the SDP and promoting the efficiency of cross-border transport are essential to increase the competitiveness of the GB corridor, which already faces disadvantages due to costly and unreliable freight services.

- **For immediate action:** Provide basic utilities such as electricity, water supply, and sanitation as well as ICT facilities on a priority basis to the SDP as part of an overall package for Sost town which caters to the boarding and lodging needs of traders. Use the provision of public infrastructure as a lever to elicit investment by SDP operators in expanding storage space and providing basic handling equipment. Abolish the current bilateral restriction on the transportation of goods on the return route and negotiate a traffic sharing agreement to allow Chinese trucks to carry Pakistani exports with the twin objective of reducing transport costs and capitalizing on the market linkages of Chinese freight forwarders to improve the marketability of exports from GB.
- **For pursuit over the medium term:** Raise the standard of the SDP to match other well functioning dry ports serving as Inland Container Depots or Container Freight Stations. This would entail establishing a laboratory and phytosanitary facilities, storage and consolidation/deconsolidation facilities for cargo, and initiation of the Less Than Container Load (LCL) concept to aggregate cargo from multiple importers and exporters. Investment in cargo scanning equipment and expanding the scope of financial services at the SDP will be other important considerations. Investigate the feasibility of operating the NATCO

services along the GB corridor as a separate non-subsidized business unit with the eventual goal of spinning it off to the private sector. Allow new local and national private transporters to enter into the logistics sector on the GB corridor.

### ***Exploring Avenues for Local Exports and Value Addition***

4.123 Increasing local economic benefits from the growth in trade would greatly depend on GB's ability to export local products and identify avenues to add value to both exported and imported products.

- **For immediate action:** Include trade representatives from GB in the next round of trade negotiations with China and the CARs and seek tariff concessions and quarantine support for products of interest to GB such as potato and dried apricot. Exempt the GB bound import consignments from additional taxation like Kohistan Development Fund and NWFP Fund. Study the costs and benefits of abolishing additional taxes like sales and income tax on import consignments which in principle are not currently applicable to GB due to its special constitutional status.
- **For pursuit over the medium term:** Study the feasibility and modality of establishing a geographically de-limited Free Trade Zone adjacent to the SDP to serve as a consolidation, grading, packaging, and labeling center for horticultural exports from GB as well as for performing similar value addition on the imported goods. Establish a border market at Sost or in its vicinity along the lines of similar border markets like Khorghas Bazaar established by China and Kazakhstan. Identify ways to link the proposed border market to domestic and international tourism in GB to encourage sales. Set up display centers for major Pakistani and Chinese export products to draw a greater number of business visitors.

## **4.6. Concluding Comments - The Promise of Private Sector Led Growth**

4.124 From the discussions above, on the selected sectors of agriculture, minerals, tourism and trade, it is evident that prospects are in many ways interdependent. For example, greater tourism activity encourages the marketing of higher value agricultural products (like fresh fruits and vegetables), and spurs gemstone mining and various downstream activities such as cutting, polishing and jewelry making. Trading activity would benefit from the mechanization of dimension stone mining and the development of more processed foods in the agriculture sector. Similarly, the provision of adequate public services and infrastructure will be central to fostering growth. The education system will need to ensure an adequate skills match and help relieve ever present capacity constraints. Good health is essential for keeping morbidity in check and raising productivity. The further development of water supply & sanitation is needed to support urbanization and agglomeration of activity. Electricity is essential for any mechanization to take place in mining, while irrigation underpins virtually all agriculture. Finally, ensuring transport links, landslides and other natural disasters notwithstanding, is central to all manner of private sector activity. This highlights the importance of pursuing integrated approaches to fostering private sector led growth.

4.125 While the private sector of the GB faces formidable challenges, among others the tough geography, the weaknesses in the administrative arrangements, and a difficult wider context, there are positive steps that can be taken by stakeholders in general, and policy makers in particular, to promote growth. If the people of GB can agglomerate activity, connect to markets, and bridge divisions, as well as strengthen administration, increase the effectiveness of public resource use, and tap into the capacities of CSOs, then indigenous entrepreneurial spirit and creative energies will help ensure good development performance in the coming years.

## 5 Improving Public Service Delivery and Underpinning Growth

### 5.1. Introduction

5.1 Ensuring access to adequate quality public services (both human development and infrastructure services) is a core function of government, and is essential for improved development performance and well-being. As discussed elsewhere in the report, the challenges of public service delivery are magnified in GB, where a dispersed population living in difficult mountainous terrain and facing great uncertainty means that the unit cost of service provision is high, and the scope for connective infrastructure to overcome distance and enable access is limited. In addition, the particular administrative arrangements of GB complicate accountability and effective provision.

5.2 A major issue confronting policy makers and other stakeholders is determining the appropriate level of service availability and the manner of provision. While access to basic health and education services, for example, is recognized as both essential and feasible, more sophisticated services (tertiary health or schooling) can realistically be provided only in urban centers. Access for many will then depend on their mobility, either in terms of moving to areas where the full complement of public services can be availed, or by being close enough to connective infrastructure to overcome distance and make access feasible. These circumstances require appropriate policy responses. For example, the health system will need to rely heavily on a strong patient referral system; demand side factors, like providing safe dorm facilities for women coming from distant places seeking maternal health care, will also be important. Another concern will be ensuring capacity in remote areas, and special incentives may be needed to post a sufficient number of teachers to lead secondary school classes. Finally, providing access to productivity enhancing infrastructure is also difficult in remote areas (as again highlighted by the Attaabad landslide). Rural electrification, for instance, has been expanding rapidly in recent years, but many areas remain without access to electricity, constraining educational opportunities and other economic activities.

5.3 Effective government and non-governmental institutions will be essential to meeting these challenges. The particular administrative structure of GB means that in most cases the lines of accountability will follow the ‘long route,’ from local client to policy maker to service provider, making it harder to ensure good service.<sup>77</sup> Mobilizing adequate resources, largely from outside GB, and ensuring effective public spending will also be challenging. The higher need for recurrent expenditures combined with a limited scope for cost recovery results in service delivery arrangements that are often inadequate and poor in quality, leading to hospitals without sufficient medicines and medical staff, schools without qualified teachers, or drinking water supply projects without adequate maintenance. Hence, in remote areas, additional parts of the governance mosaic need to play a heightened role, including the activities of CSOs and other entities engaged at the local level. For example, the efforts of the AKDN institutions have in many instances shortened the routes of accountability, by enhancing the participation and voice of communities in the delivery of services as diverse as primary schooling and irrigation infrastructure. The GoGB and other stakeholders have also built on these initiatives to good effect, including community driven planning and management of small infrastructure through the *Khushal Pakistan Program*, or parents’ involvement in the management and supervision of schools through the *Social Action Program*. Enhanced accountability and utilization depends on increasing the participation of clients in the oversight

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<sup>77</sup> World Bank(2004): World Development Report: Making Services Work For Poor People; in seeking good public services, people trying to influence policymakers, who in turn attempt to discipline providers, is deemed the ‘long route’ of accountability. This contrasts with the more ‘direct route,’ where local clients work directly with service providers to address service issues.



of service providers, expanding access to information on the allocations and use of public funds, and strengthening the voice among poor clients.

5.4 The following sections will evaluate the current state of public service delivery, as well as trace some key policy implications. Four critical areas in human development are covered: social protection, education, health, and water supply & sanitation, comprising the essential underpinnings of good development performance in GB, both for well-being and for enhancing productivity that will be critical for ensuring robust economic growth.

## **5.2. Securing Livelihoods with Social Protection**

5.5 Ensuring a minimum desired income for the poorest and protecting those who face a high risk of welfare loss are crucial public policy challenges in GB, where one in every three citizens is either poor or vulnerable to experiencing poverty in the near future. Providing for a basic minimum living standard is also important from the perspective of encouraging national cohesion and stability in a turbulent neighborhood. In the absence of formal support, including safety nets and social insurance, poor households often choose lower risk but also lower return activities. They resort to seemingly counterproductive coping mechanisms, including lowering investment in human capital or liquidating productive assets such as agricultural land, which ultimately undermines their long term potential to break away from poverty.

5.6 The physical geography of the region has profound effects on the need for and the delivery of social protection (SP). Low levels of economic activity and limited integration—key manifestations of small scale and long distances—translate into more poverty and vulnerability. Harsh geographic and climatic conditions result in frequent individual and group shocks, such as an illness afflicting one or more family members, a flood destroying crops, or a landslide blocking roads (as evidenced most recently by the Attaabad landslide, isolating and damaging the livelihoods of more than 25,000 people north of the blockage). Limited connective infrastructure and low levels of affordability only widens the gap between the vulnerable and needed public services that often form a pillar of social protection and are more accessible in urban areas.

5.7 An effectively functioning social protection regime requires strong administrative institutions. Efforts to strengthen policy and planning are greatly impaired by a lack of an institutional home and monitoring and evaluation of social protection programs as well as other essential information. Fiscal constraints limit the scope and scale of SP programs, and because they do not have a clear institutional home within the GoGB, fragmentation and weak coordination lead to poor targeting and duplication of efforts. The presence of strong CSOs, however, has been crucial to bridge the gaps in coverage as well as in forging partnerships to improve the effectiveness of existing resources.

5.8 SP needs to complement growth and integration. In addition to helping the chronically poor meet minimum basic needs and hedge risks, SP initiatives can play an important role in creating incentives for investment in long-term assets (such as human capital), and facilitating economic activities that promise higher returns (moving away from subsistence into higher value commercial crops). To this end, several actions are warranted in the areas of: (i) increasing the effectiveness of existing SP resources; (ii) seeking to expand coverage to the informal economy; and (iii) building exit programs that raise the odds of the poorest escaping from poverty.

### **Development Performance to Date**

5.9 A sound SP regime is essential in GB, where an estimated 360,000 people (29 percent) of GB population are poor (PSLM 2004-05). Similarly, based on the experience with vulnerability from other parts of the Pakistan, it is likely that nearly two-thirds of the people of GB face one or more shocks in any 3 year period (Box 5.1). While over 58 percent of these shocks were health related (such as death, sickness, and disability) and specific to individual households, the other shocks originated from natural calamities (30 percent), and economic downturns (10 percent).<sup>78</sup>

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<sup>78</sup> World Bank (2007). These estimates are based on a survey of safety nets but are not representative at the national level.

### Box 5.1. What is Social Protection?

Social protection generally constitutes two broad categories of support mechanisms for the poor and vulnerable—safety nets (also known as social assistance) and social security.<sup>79</sup> Safety nets usually comprise cash and in-kind transfers as well as services to the disadvantaged, helping them cope with poverty *ex-post*. The *Guzara* program (cash transfers) under Federal *Zakat*, the Food Support Program (FSP) under Pakistan *Bait-ul-Maal* (PBM), and the rehabilitation centers for people with disabilities are a few examples of safety nets in Pakistan. In addition to these, the GoP has also recently initiated a national cash transfer program under the Benazir Income Support Program (BISP) to help the poor hedge against the rising inflationary pressures. In contrast, social security is a contribution-based *ex-ante* measure that provides insurance against particular risks and life cycle events (for instance, health risks and old age) that may force people into poverty. Pensions and health insurance are some examples of social security. A well functioning social protection regime addresses the interrelated problems of poverty and vulnerability through a variety of channels. It strengthens the demand for basic public services among poor people who would otherwise not be able to afford them (such as health services) or make choices with high opportunity costs (such as engaging children in work instead of schooling). It also helps families manage individual risks (such as sickness) and community level shocks (like floods or the outbreak of farm diseases) by adopting strategies (health insurance, crop insurance) that do not deplete their investment in current and future assets (nutrition and education of children). Informal safety nets are also significant in GB, and include welfare transfers from relatives and friends.

5.10 The ability of the formal social protection regime in GB to address some of these issues is constrained, however, and insufficient coverage through formal safety nets remains a major concern. The support level and the outreach under the two major cash transfer programs—the *Zakat Guzara* (accounting for 60 percent of overall *Zakat* funds) and the Food Support Program (FSP) (accounting for more than 80 percent of the total disbursements under PBM)—are very limited and the annual allocations are usually erratic, undermining the development of a well planned strategy for effective utilization. For example, in 2006-07, FSP reached about 10 percent of the total population, which accounted for only a third of the poor in GB. Similarly, the size of assistance was meager—only 3,000 rupees per annum for *Guzara* and FSP. In the case of *Zakat*, only 1 percent of GB's population benefited in 2006-2007, a trend also seen in earlier years. A study conducted in other parts of Pakistan noted that income support under FSP was equivalent to only 11 percent of the household income of the ultra poor. Across Pakistan, the BISP's cash transfer program has so far covered 2.2 million beneficiary families with a monthly cash benefit of Rs. 1000 per family per month, but the proportional coverage in GB is small at 28,500 families.

5.11 Inadequate targeting further weakens the effectiveness of existing SP programs, often by-passing the neediest. Studies conducted in other parts of Pakistan suggest that only 46 percent of PBM and 43 percent of *Zakat* reaches the bottom 40 percent of the population. The situation seems to be similar in GB. For example, communities in selected villages of GB rated PBM and *Zakat* lower than the non-formal support mechanisms, and complained about weak targeting and inefficient disbursements of PBM and *Zakat*.<sup>80</sup> BISP, on the other hand, is using a Proxy Means Test based poverty scorecard to identify beneficiaries. This targeting mechanism will be applied nationwide through the countrywide census that is to be initiated early in 2010, and is expected to bring more objectivity in identifying the needy. The World Bank was involved in developing this targeting instrument, which is based on poverty predictors drawn from the PLSM 2005-06. The GoP plans to use this scorecard to develop a central registry to identify the poor and vulnerable, including those from GB.

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<sup>79</sup> In practice, however, the distinction between safety nets and social security is sometimes blurred.

<sup>80</sup> Planning and Development-Northern Areas (2003): *Between Hope and Despair: Pakistan Participatory Poverty Assessment: Northern Areas Report* (also referred to as PPA 2003 in this report).

5.12 Unreliability also reduces the effectiveness of SP support. Delays in the payment of Zakat grants in GB vary from 6 to 12 months, for example. Similar delays are encountered in the funds disbursed through PBM, particularly for the Individual Financial Assistance (IFA) component that is administered directly from Islamabad. In the case of the BISP, income payments are made through Pakistan Post's money order system. Although payment delays are not significant, mechanisms to ensure transparency are lacking. The BISP is in the process of identifying alternative technologies to see if more efficient, cost effective and transparent mechanisms can be introduced.

5.13 Formal social security—the largest part of social protection in Pakistan—is not available to the majority of people in GB, as it is limited to those with formal employment in the government (roughly 18 percent) and the private sector (about 9 percent). This excludes people employed in agriculture (around 45 percent) as well as informal jobs in the non-farm sector (estimated at 28 percent), and works out to social security coverage of only about one in four people of working age.

5.14 Exit programs aimed at graduating the destitute from poverty, such as the PBM's IFA, are either extremely fragmented or ad hoc in nature, and both outreach and scale remain major issues. The PBM program provides IFA, ostensibly in support of skill building programs across all districts of GB, but in 2007-08 it reached only 40 individuals. Other initiatives, such as *Khushal* Pakistan—a workfare program—and *Tawana* Pakistan—a school meals program, showed success at the pilot stage but could not be scaled up due to fiscal constraints. However, there are some more recent efforts, like the Women's Entrepreneurs Project implemented by AKRSP with support from the Planning and Development Department (P&DD), and the latter's Doorstep Employment Project, which are partially filling the void, albeit at a limited scale. As for the BISP, it was started as a cash transfer program, but is now also moving into supporting exit from unconditional cash transfers by helping beneficiaries seek greater income earning opportunities.

5.15 In the absence of adequate formal social protection programs, the poor and vulnerable rely heavily on informal support mechanisms rooted in their social networks. The most prevalent forms of informal mechanisms to cope with poverty and the risk of deprivation include: receiving intergenerational transfers and support from within the family; borrowing cash, food, and basic necessities from relatives, neighbors and shopkeepers; collecting charity from affluent members (such as *Zakat* in kind and *Fitra*); and receiving subsidies from various community based CSOs and religious philanthropy institutions.<sup>81</sup> Collective and voluntary work at the tribe, neighborhood, village, or even valley level is a common mechanism to cope with community-wide shocks such as flash floods, road blocks, and damage to irrigation channels. Yet, the communities indicate that informal mechanisms are often inadequate and unreliable, despite being easier to access.<sup>82</sup>

5.16 Poor families also report using behavioral strategies and asset based coping mechanisms which tend to deepen their poverty and vulnerability over time. For instance, 8 percent of households in GB cut down on their consumption of basic food and fuel items when faced with insufficient production. This ratio was much higher among poor households—15 percent of households reduced their consumption compared to 6 percent of non-poor.<sup>83</sup> This parallels findings in other parts of Pakistan. When poor families face shocks, 33 percent lower their food intake, 10 percent put a child to work, and 8 percent pull a child out of school.<sup>84</sup>

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<sup>81</sup> See the background paper on Social Protection in the Northern Areas for details.

<sup>82</sup> PPA 2003.

<sup>83</sup> AKRSP Socioeconomic Survey data for 2005.

<sup>84</sup> World Bank(2007): Social Protection in Pakistan: Managing Household Risks and Vulnerability.

## **Key Challenges**

5.17 The people of GB face a range of challenges that both increase vulnerability and make it harder to avail of mechanisms of SP. As described above, these are related mainly to geographic features and weak institutional underpinnings.

### ***Coping with Isolation***

5.18 There are four main channels whereby difficult geography impinges on efforts to mitigate vulnerability and enhance social protection in GB. These have direct and indirect impacts. Firstly, remoteness and scattered populations impair livelihoods in myriad ways; most farmers in GB are only able to sow one crop during the short growing season at higher altitudes, for example, increasing the risks they face. Similarly, the nascency of the private sector means that the opportunities for employment in the formal part of the economy, and hence access to social security, are quite limited.

5.19 Secondly, a key function of public service delivery, for instance in the health sector, is to provide a floor—a basic level of key services that can be availed by all in the event of idiosyncratic shocks such as major illnesses, injuries, or maternal health issues. However, given the high unit cost of service provision and other challenges posed by long distances, actual access to such public services is limited (as described in more detail in the following sections), and therefore many people are unable to benefit from the social protection aspects of public service provision.

5.20 Thirdly, distance directly hampers access to the limited social protection programs that do exist. For example, long travel times to distribution points may make availing of subsidized wheat flour or cooking oil prohibitive. Differential access between the many small settlements in rural areas and the urban centers of Gilgit and Skardu is especially pronounced. The limited SP services that are currently functioning tend to be concentrated around urban and peri-urban settlements, leaving the poorest and most vulnerable segments of society with little or no access.

5.21 Finally, societal divisions have both supply and demand side effects on SP. Marginalized segments of society find it difficult to get help in the face of shocks—a supply side constraint. These groups include the non-productive poor (such as people who are disabled and elderly widows), and others who are excluded for social, ethnic and religious reasons. In other cases, some who would be deemed to have a legitimate need for assistance do not avail of existing support—a demand side issue. For example, the “white collar” poor, comprising people who were better off but have fallen into poverty due to the atomization of family land holdings, or some other shock, do not ask for help due to the stigma and loss of respect that is felt to be associated with receiving welfare transfers. Similarly, women heads of households living in remote locations often feel unable to seek assistance. While no comprehensive data exist to quantify the extent of this groups’ vulnerability, several studies note their difficulties in coping with adverse shocks.<sup>85</sup>

### ***Strengthening the Role of Public Agencies in Social Protection***

5.22 Good administration is an essential part of responding effectively to the heightened vulnerabilities noted above, but faces several challenges. For example, there is a need to develop the technical capacity required to devise and apply objective criteria for the identification of the poor and ensure greater

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<sup>85</sup> PPA 2003 and interviews with AKRSP staff.

transparency in the delivery of social protection programs. Wider coverage will depend on improving targeting as well as adding fiscal resources. The strong base of CSOs in GB offers an opportunity both to increase the amount spent on SP programs, as well as ensure the effective utilization of funds.

5.23 The problems of low coverage, poor targeting and lack of reliability are strongly linked with evident technical and fiscal constraints. The weak capacity of the offices administering *Zakat* and PBM, coupled with insufficient devolution of decision making authority to the GoGB, leads to long delays and irregularity in the actual payment of transfers. Similarly, the absence of an objective and transparent criteria for identifying the poor translates into inadequate targeting and weak accountability. Without an objective basis, local *Zakat* committees have excessive discretion, often resulting in complaints that the most deserving members are missed.<sup>86</sup> Indeed, residents of surveyed villages have severely criticized the system of *Zakat*, alleging that it neither delivers in times of need, nor does it reach the poor, particularly women, and some villages are by-passed entirely.<sup>87</sup> Addressing some of these challenges will hinge on strengthening the policy and institutional framework for SP, including developing an SP strategy (in consultation with stakeholders) and reviewing administrative arrangements such as creating an institutional home for SP, preferably within the Planning and Development Department.

5.24 Some of these issues are also being looked at by the World Bank assisted, Social Safety Net Technical Assistance (SSNTA), provided to BISP. The introduction of the PMT based scorecard is a step towards bringing objectivity in beneficiary identification, and the establishment of a national central registry with a uniformly applied targeting mechanism will enhance equity. This registry will cover GB's population as well, and can be utilized by the local CSOs and AKDN to do social protection mapping. This is expected to help coordinate efforts and reduce duplication.

5.25 On the policy and institutional framework, the GoP is working with the SSNTA to set up a mechanism of policy review and feedback, as well as seeking to ensure that programs are well aligned with the National Social Protection Strategy (NSPS). The Planning Commission has been chosen as the responsible agency to ensure good coordination in this area.

### ***Fiscal Management Issues***

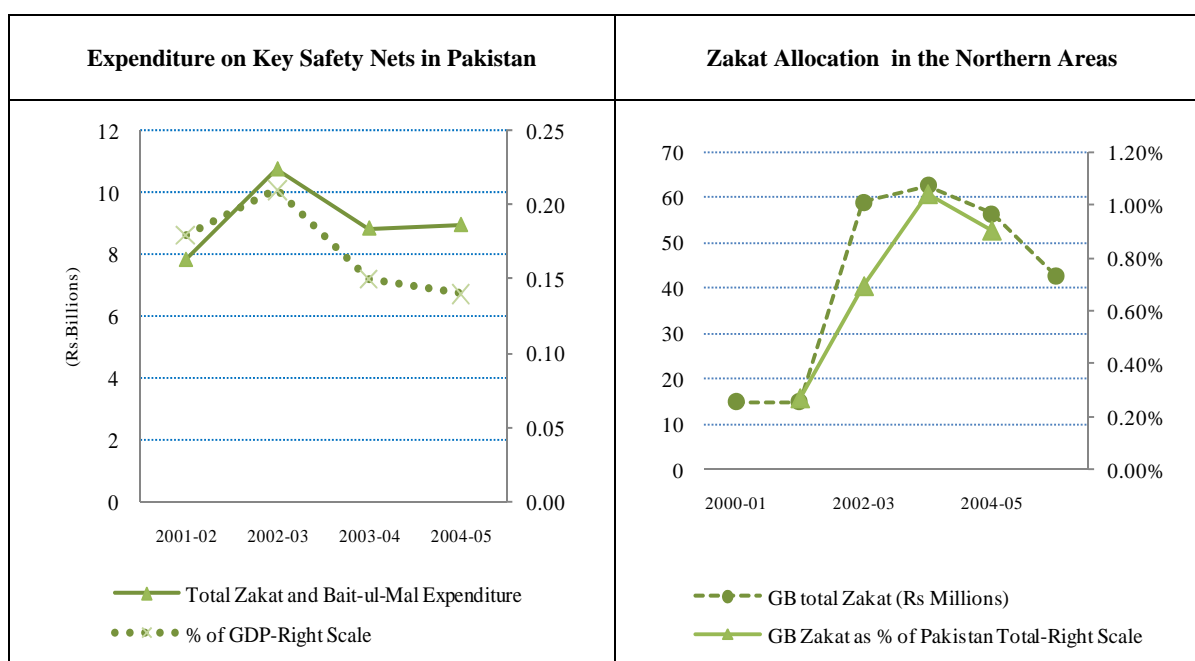
5.26 GB's ability to expand the coverage of the SP programs (and respond to natural disasters like the Attaabad landslide) faces serious fiscal constraints. The Federal *Zakat* and PBM depend exclusively on federal resources, and spending on these two safety nets seems to be falling in all of Pakistan, with GB being no exception (Figure 5.1). Allocations are hardly sufficient to cater to the needs of the almost 360,000 poor and vulnerable in GB. This makes effective targeting even more important. Currently a very small percentage of the population in GB, and less than 1/3 of the poor, benefits from these two public sector programs. In 2006/07, only 1 percent of the population received *Zakat* and only 10 percent of the population benefited from FSP. The absence of a well articulated targeting strategy combined with anecdotal information on mis-identification raise concerns that most of the available support does not reach the poorest of the poor. Finally, although an internally managed system of audit does exist, accountability mechanisms are very weak, lacking credible third party evaluations or community-based monitoring and evaluation. This raises doubts about the level of transparency and efficacy of the amounts being spent on SP related programs.

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<sup>86</sup> World Bank (2007): Social Protection in Pakistan: Managing Household Risks and Vulnerability identified similar issues like time delays, insufficient funds, irregular payments, and the like in other parts of Pakistan.

<sup>87</sup> PPA 2003.

**Figure 5.1. Expenditure on Key Safety Nets in Pakistan and Zakat Allocation in GB**



Source: World Bank (2007) Table 3.9; Northern Areas Zakat Administrator Office (2008).

5.27 The GoP has committed Rs 70 billion for FY 2009-10 to cover 5 million families across Pakistan under the BISP cash transfer program, covering potential beneficiaries from GB as well. This is a significant commitment on behalf of the GoP, and with such a large program, it is essential that a transparent grievance process be established as well as other sound administrative processes be put in place to ensure that the money reaches the intended beneficiaries.

### *CSOs and the Social Protection Regime*

5.28 There are a large number of local level organizations (including VOs, WOs, LSOs, and CBOs) as well as regional offices of national and international CSOs (such as the AKDN agencies, the IUCN, and the WWF), helping to fill the gaps in the SP system. Though “social protection” is not an explicitly articulated goal, a significant part of their work is focused on the poor and marginalized segments of society. Most of them are engaged in remote and resource poor areas and target underserved groups (such as women), working in the fields of health, education, environment, agriculture and livestock, capacity development, awareness raising and income generation. For example, the Women’s Entrepreneurs Project implemented by AKRSP with support from P&DD is working to enhance the employment opportunities for women in the business sector, complementing the P&DD’s Doorstep Employment Project, in order to promote self employment in cottage industries. Some of these projects self-select the target groups, for instance in apricot drying, which open income earning opportunities to women who generally face disadvantages in the labor market. In other contexts, however, CSOs are helping to improve targeting to more vulnerable and poorer households. This is not a substitute for the establishment of an objective targeting mechanism, but is an important complement as systems are being improved. Assessing the impact of various initiatives is difficult, and more information needs to be compiled on the SP related work being done by various civil society organizations, to ensure that they are well integrated into an umbrella GB social protection strategy.

5.29 It is worth noting that social capital plays an important role in SP, especially in GB. Economic transformation is demanding agglomeration and connection to the market nexus, bringing changes that

may jeopardize existing social networks that have evolved over centuries of trying to survive in a hostile environment, and have provided at least some measure of protection against adverse shocks. More modern and formal types of social protection are still nascent, and will need to be developed and expanded over time. This means that people may face a period of elevated risk whilst in transition, before reaching a place of lower vulnerability. CSOs have an important role to play in sustaining the vitality of traditional mechanisms of SP, as well as in helping to carry these forward to facilitate more productive forms of social interaction (Box 5.2).

### **Box 5.2. Leveraging Social Capital to Expand Access to Microfinance**

A good example of the ways in which CSOs can help provide safety nets using social capital is the provision of microfinance. The Village and Women's Organizations (V/WOs) fostered by AKRSP are recognized to have contributed importantly to the development and maintenance of social capital. Based on these organizations, the First Microfinance Bank—a formal bank created by the Aga Khan Agency for Microfinance as a spin-off of AKRSP's work in village saving and micro-credit—essentially used social capital as 'collateral' to underpin loans. While microfinance coverage in Pakistan is one of the lowest in South Asia, a large part of GB enjoys better access to formal and semi-formal forms of microfinance. By 2002, savings mobilized through V/WOs amounted to Rs 430 million, and a cumulative total of Rs 1.6 billion in micro-credits was disbursed through 600,000 credit operations. Similarly, since its inception, the FMFB has disbursed 48,000 loans with an average loan size of Rs 25,000. The financing enables consumption smoothing through difficult periods, as well as small investments that enhance productivity and lessen vulnerability.

## **Looking Ahead: Policy Options**

5.30 The foregoing discussion implies that simply expanding the existing SP system appears to be neither feasible nor likely to improve outcomes in a meaningful way. SP approaches should be consistent with the forces of economic geography and the implications of prevailing governance challenges. This means that SP should aim at reducing the existing deprivation of the poorest segments while at the same time incentivizing investment in skills and assets that encourage mobility to sectors or locations that bring higher returns. It will also be important to help vulnerable households adopt coping strategies that do not impair unduly their medium-term livelihood prospects through such desperate measures as cutting back children's education or selling productive assets. Progress in these directions will only be feasible by using existing resources more effectively (better targeting, implementation and performance auditing), expanding coverage to people in the informal sector (on a pilot basis to start), and enhancing exit programs in close collaboration with CSOs.

### ***Making Existing SP Programs More Effective***

5.31 The effective use of resources is especially important in GB, given the sharp fiscal constraints and complete reliance on federal government transfers. Improvements are needed at all stages in the process – from identification, to transfer of support, to subsequent performance auditing.

- **For immediate action:** Establish a focal agency in the GoGB entrusted with the role to lead SP policy, strategy, implementation and oversight. Build the capacity of staff in the proposed agency through training programs specifically aimed at imparting analytical skills, as well as monitoring and evaluation proficiency (this would also enable a wider assessment of the social protection programs to be undertaken).
- **For pursuit over the medium term:** Develop objective criteria such as proxy means testing, increase the use of formal systems to transfer funds, and track payments through regular financial and performance audits. Also look at results from the PMT based targeting tool introduced by



BISP in its test phase district (concluded in October 2009).<sup>88</sup> Facilitate the parallel operation of SP systems, seeking the benefits from more objectively based, ‘arms-length’ transactions while maintaining the engagement of more traditional SP mechanisms. This means allocating more resources to formal SP programs, while trying to improve the traditional systems in terms of reliability, targeting, and oversight.

### ***Initiating the Expansion of Social Insurance Programs to Cover Informal Workers and Offer a Broader Scope of Products***

5.32 Given the predominance of informal employment in GB, widening the scope and extending the coverage of social insurance arrangements is a key priority. For example, AKDN is already piloting the provision of health insurance services to poor households through LSOs at the grassroots level.

- **For immediate action:** Build on the mechanisms developed through the AKDN pilot and insights from similar experiments in other parts of the world to initiate the expansion of coverage to informal workers in underserved communities in villages and town areas.
- **For pursuit over the medium-term:** Develop social insurance products in areas otherwise not available to people in the informal sector, such as pooling risks to agricultural assets, crops and livestock, thereby helping people cope with natural calamities. This could be done in partnership with private sector actors and CSOs.

### ***Strengthening Exit Programs***

5.33 CSOs (particularly AKDN institutions) and other grassroots community organizations are collaborating with the GoGB to design and deliver programs facilitating exit from poverty.

- **For immediate action:** Improve the targeting of such programs to reach poor, marginalized and vulnerable groups, and strengthen impact monitoring to gauge the effectiveness of such initiatives. BISP's graduation strategy may also be reviewed in order to identify possible linkages to existing exit programs being implemented by CSOs. At the same time, the BISP could benefit from looking at the successful experiences of AKDN to adopt tested interventions for its long term human development goals.
- **For pursuit over the medium-term:** Explore avenues for increasing ADP allocations to support collaboration between the GoGB and CSOs on SP related programs. This could include revisiting the IUCN recommendation on the establishment of a NA Sustainable Development Fund, as a mechanism to engage CSOs in this area.

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<sup>88</sup> Ganche is one of the test phase districts.

### **5.3. Enhancing Educational Attainment**

5.34 GB has made rapid progress in education in recent decades. Indeed, in many areas it has kept pace with national levels. Still, together with much of the rest of Pakistan, the region falls well short of reaching the national MDG targets. The gaps in adult literacy and child education are substantial among women, poor households, and the communities that reside in lagging districts like Diamer and Astore. These gaps in education, in turn, affect the economic welfare of households, as the nexus between education and employment is crucial in the context of GB, where economic opportunities for low skilled workers are limited. Weak educational outcomes in GB derive largely from the existing geographic and administrative realities of the region, which often militate against the effective and efficient delivery of services. Access to education seems to be particularly problematic in those districts where there are major geographic obstacles such as long distances that discourage girls' school attendance, and where educational institutions lack the capacity and depth to provide quality education services.

5.35 The unfavorable geography of GB has many ramifications for the delivery of education. For instance, scattered settlements coupled with poor connective infrastructure either limit the rationale for public investment in schools in the first place or lead to a proliferation of schools that are ill equipped and understaffed. Barriers erected by cultural and social divisions also limit the mobility of students, particularly girls, even when schools are available. While there is scope for overcoming these issues at the primary level, facilities at the middle level and above quickly encounter challenges of sustainability, particularly in remote parts where the unit cost of serving a student is high and where qualified teachers are often in short supply. As a result, people need to move in order to be able to access desired services.

5.36 Delivering education with adequate quality and equity also requires strong institutions to bring the needed financial and technical capacity. The existing architecture of the education system in GB, which is a mix of government and non-government providers, however, faces numerous challenges. Public planning and spending practices do not fully account for the staffing and capacity needs of schools, the "software," thus leading to gaps in the actual delivery and quality of services. Moreover, services are focused primarily on supply side interventions. Efforts are required to strengthen the demand for education among poor and underserved communities. Local CSOs are playing a crucial role in expanding access to education, particularly for girls. Community schools established under the Social Action Program with government financing towards endowments have also played a key role, particularly in remote communities. Refocusing education initiatives to ensure an appropriate skills match will be important to expanding employment opportunities, both within GB and for those who choose to move outside the region.

5.37 The analysis of the education sector points to three areas for policy action. First, ensure sustained and equitable access to education through initiatives that reduce distance and strengthen demand among those who face barriers. Second, enhance the quality of education by improving the curriculum, building the capacity of teachers and improving incentives for better performance. Third, strengthen the transition from education to labor markets by delivering programs that offer relevant education and bridge skills gaps. An overriding consideration is to invest in portable assets, enhancing the mobility of the people of GB over their lifetimes.

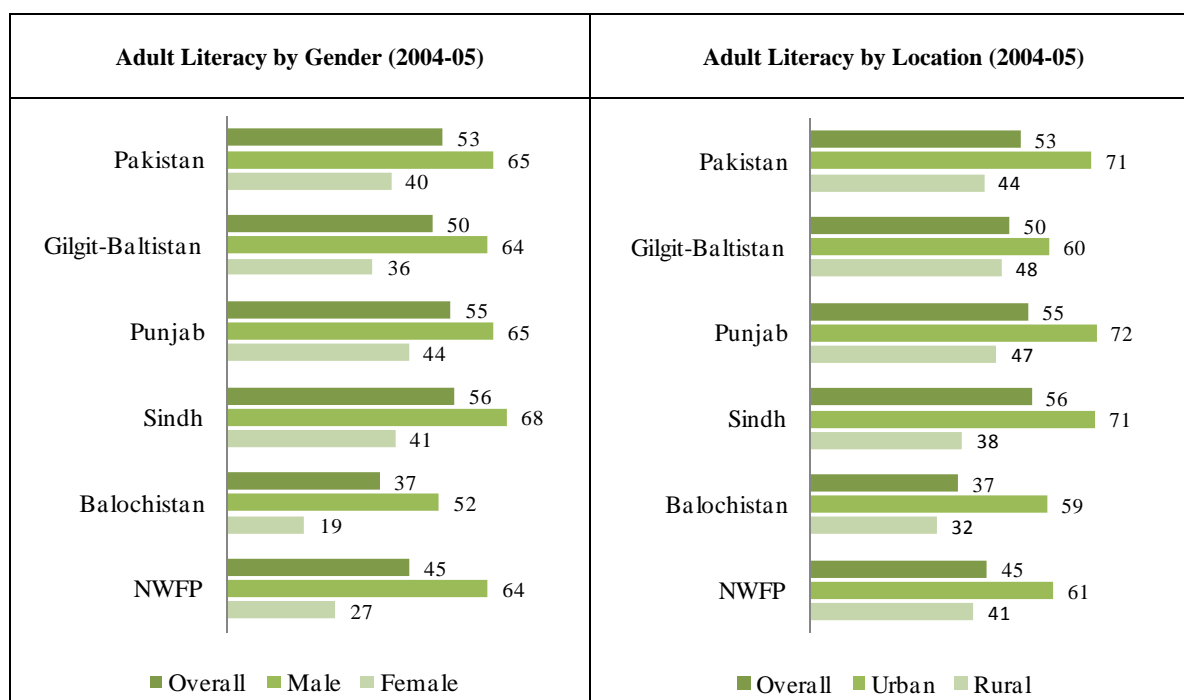
### **Development Performance to Date**

5.38 The following paragraphs present a brief account of the good progress that GB has made thus far in adult literacy, school enrollment, and technical and vocational education. The section concludes with a discussion of the link between education and employment in the context of GB.

## Literacy

5.39 Literacy rates in GB have increased rapidly over the last few decades, rising to 50.0 percent in 2004/05, from 37.8 percent in 1998 and 14.7 percent in 1981 (Figure 5.2).<sup>89</sup> Improvements were particularly strong among women, whose literacy rates rose to 36.0 percent in 2004/05 from 3.0 percent in 1981. Literacy among men also showed strong gains, more than doubling to 64.0 percent from 24.0 percent over the same period. The gains stem from greater school enrollment in the 1990s, as well as targeted literacy programs run by CSOs like the AKRSP and Aga Khan Education Services, Pakistan (AKES-P) (Box 5.3). In addition, the 200 Adult Literacy Centers established in the region by the Ministry of Education as part of the Education Sector Reforms after 2001 also seem to have had a significant impact.

**Figure 5.2. Adult Literacy by Gender and Location (2004-05)**



Source: Staff estimates based on PSLM 2004-05.

### Box 5.3. Empowering Women through Adult Literacy

Despite strong gains in female literacy noted above, a large proportion of women remain illiterate. Stepping-up female adult literacy programs is especially important as it impacts general social and economic development, as well as gender equality and women's empowerment (more voice). Towards these ends, the AKES-P supported the establishment of 368 informal adult literacy centers serving 19,461 women. In addition to making an important contribution towards meeting the Education for All objectives and the MDGs, the centers have promoted social bonding, conferred essential life skills, and spurred women to take initiative in other realms.

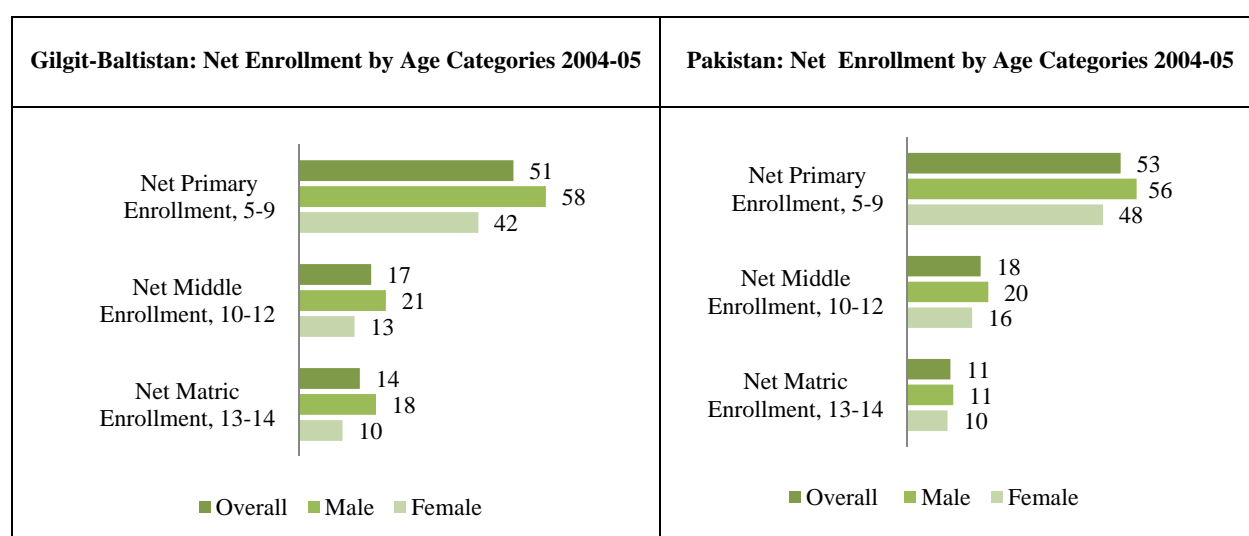
Source: From a case study: Aga Khan Education Service, Pakistan (AKES-P)

<sup>89</sup> Census data on literacy is reported for the population aged 10 years and over. The most recent figure is from the 2004/5 PSLM, which despite some issues of comparability, gives a good indication of the trajectory.

## School Enrollment

5.40 Remarkably, the 2004/05 PSLM indicates that net enrollment rates in GB for all levels of schooling were close to the national averages (Figure 5.3). About half of all boys and girls age 5-9 were enrolled in schools compared to 53 percent in the rest of Pakistan. At the matric level, enrollment rates were even significantly higher than national averages. The enrollment among girls at the primary school level, however, was 6 percentage points lower than the national average of 48 percent, and to a lesser extent, the gender gap is also evident at the middle level. Progress on enrollment appears to have slowed down in recent years, coinciding with the end of the Northern Areas Education Project (See Annex 12). This also appears to be corroborated by gross enrollment rates, where there was a slight decline among boys over the past few years.<sup>90</sup> More recent figures from the Department of Education give far lower estimates of net enrollment than PSLM 2004-05, but these may not be compiled on a comparable basis.<sup>91</sup>

**Figure 5.3. School Enrollment by Age Categories (2004-05)**



Source: Staff estimates based on PSLM 2004-05.

## Participation in Post Secondary Education

5.41 The evidence on higher education in GB is sketchy. According to school census data, a total of 5,739 students are enrolled at the Intermediate and Bachelors level in various colleges within GB, of which 47 percent are women.<sup>92</sup> Another 947 students are enrolled in Bachelor's and Master's Programs at the Karakoram International University (KIU) in Gilgit, with 35 percent of the student body comprised of women (Box 5.4). About 23 percent of all post secondary students are currently studying outside the

<sup>90</sup> Gross enrollment rates are calculated as the number of children enrolled at each level of school as a percentage of children in a certain age group. The GER for primary school enrollment, for example, takes the total number of children enrolled in primary school as a percentage of the total number of children in the age 5 to 9 cohort. However, there is no guarantee that the children enrolled at primary level are actually less than 10 years old, and in fact in many cases this will not be the case. Net enrollment rates are normally calculated using age-specific data, by checking for children age 5 to 9 who are enrolled in primary school, for example. The data requirements for the calculation of net enrollment rates are more challenging.

<sup>91</sup> Estimates from the Annual School Statistical Report 2008-09 supplied by the Department of Education Gilgit-Baltistan.

<sup>92</sup> Census year 2006-07.

region.<sup>93</sup> All together an estimated 8,680 students from GB are currently enrolled at the intermediate level and above.<sup>94</sup> Somewhat surprisingly, the post-secondary enrollment rate in GB is better than the rest of Pakistan, possibly reflecting cultural norms that emphasize the importance of education.<sup>95</sup>

#### **Box 5.4. Enhancing Access to Higher Education: The Role of Karakoram International University**

Established through a charter from the Federal Government in 2002, the Karakoram International University (KIU) is the first and the only university in Gilgit-Baltistan that offers degree programs at the graduate and masters levels. The university is regulated and funded by the Higher Education Commission of Pakistan. Currently, the university is catering to a student body of around 2000 (females constituting one third of the total) through various degree programs offered under the faculties of sciences and humanities. The main campus of the KIU is located in Gilgit city. Subject to the availability of resources, the university intends to open new facilities in other parts of GB as the charter allows KIU be a multi-campus facility.

The establishment of the KIU is an important step towards reducing physical barriers to access for students from Gilgit-Baltistan, particularly for girls who often face greater constraints to mobility. Another key proposition of the KIU, as envisaged in its strategy and on-going plans, is to develop and deliver educational content that caters to local needs and advantages. For example, the university plans to establish a Faculty of Mountain Area Development Studies that would focus on providing technical trainings and impart skills to manage the tourism sector. Going forward, the ability of the KIU to realize its objectives would greatly depend on the quality and competitiveness of its existing and planned academic programs. Enhancing the capacity of the KIU—teaching capacity as well as infrastructure—is a must. To this end, expanding financial allocations, devising special incentives to attract and retain high quality staff, and building the technical capacity of young local faculty is crucial.

#### ***Technical and Vocational Education***

5.42 Technical and vocational education (TVE) has been a neglected domain in the GB education system. Except for recent initiatives to setup polytechnic institutions and build at least one vocational center in each district (11 are in operation), the public sector has not devoted enough resources to enhancing the stock of vocationally skilled workers in GB.<sup>96</sup> Some CSOs have stepped in to bridge this gap by designing and sponsoring manpower training programs in a wide variety of fields, including agriculture, livestock, and handicrafts. The AKRSP's training programs have developed a cadre of 10,773 men and women trained in various farming disciplines and another 4,718 in marketing and business fields, for example. Similarly, another local NGO—KADO—has trained 3,000 women in handicrafts making.<sup>97</sup> Anecdotal evidence suggests that the productivity gains from skills development initiatives are quite substantial, contributing meaningfully to growth (Box 5.5).

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<sup>93</sup> AKRSP Socioeconomic Survey data (2001 and 2005).

<sup>94</sup> This estimate is arguably on the lower side because it does not account for the students enrolled in distance learning programs with the Allama Iqbal Open University (AIOU) which is believed to have significant enrollment levels.

<sup>95</sup> These are rough estimates but higher participation rates in GB vis-à-vis Pakistan at the secondary level (figure 2) give some credence to the conclusions reached.

<sup>96</sup> A plan has been approved in the current fiscal year for the establishment of the seven proposed vocational training institutes.

<sup>97</sup> See the background paper on Education for the Northern Areas Economic Report for details.

## Education and Employment

5.43 The link between education and employment warrants more attention, especially in a context where people increasingly aspire to exit subsistence farming for more market oriented activities. Employment in the more productive non-farm sector requires greater accumulation of human capital. As noted above, education is an important determinant of employability in at least half of the available non-farm jobs, mainly with the government (33 percent) or the formal private sector (17 percent). AKRSP statistics show that about 79 percent of those employed outside agriculture had some level of formal education. The share of educated workers was even higher (93 percent) among those who were employed outside GB and correspondingly earned higher incomes (also see Box 3.3 on migration).<sup>98</sup> Hence, investing in portable assets and boosting the income earning opportunities of the people of GB, regardless of where they ultimately choose to live and work, will be an important part of an effective education strategy.<sup>99</sup>

### Box 5.5. Vocational Training and Small Scale Enterprise Development



Today, Karim Khan (second from the right) owns his own workshop with the help of BACIP's initiatives

Karim Khan comes from a disadvantaged family and spent his youth wandering from village to village looking for work. Typical earnings were PKR 30 - 50 (US\$0.84) a day for more than twelve hours of work. In the evenings he would volunteer for his community in return for a small room in which to sleep. During his search for employment, Karim came across a carpenter who agreed to train him. After working as an apprentice for two years, he found employment working on a school building project executed by the AKPBS-P, and started earning a monthly wage of Rs. 1,200. After the school was completed, Karim was introduced to the

Building & Construction Improvement Program (BACIP) team of AKPBS-P, who were impressed with his work and offered him a position as master trainer in BACIP product manufacturing for a monthly salary of Rs. 5,000. With financial support from 'BACIP Start-Up Capital,' hard work, and an entrepreneurial spirit, Karim finally became the owner of his own workshop, fulfilling his aspirations to start his own business. With strong demand for BACIP products, Karim was able to access a Rs. 50,000 loan from the First Micro Finance Bank to buy more tools, build a bigger workshop, and expand production. Today, Karim earns about 30,000 PKR (US\$500) per month, and together with his wife, he was able to buy land and build a house.

<sup>98</sup> About 28 percent of those who worked outside GB have had more than 10 years of education compared to 18 percent of those who worked within their own Tehsil.

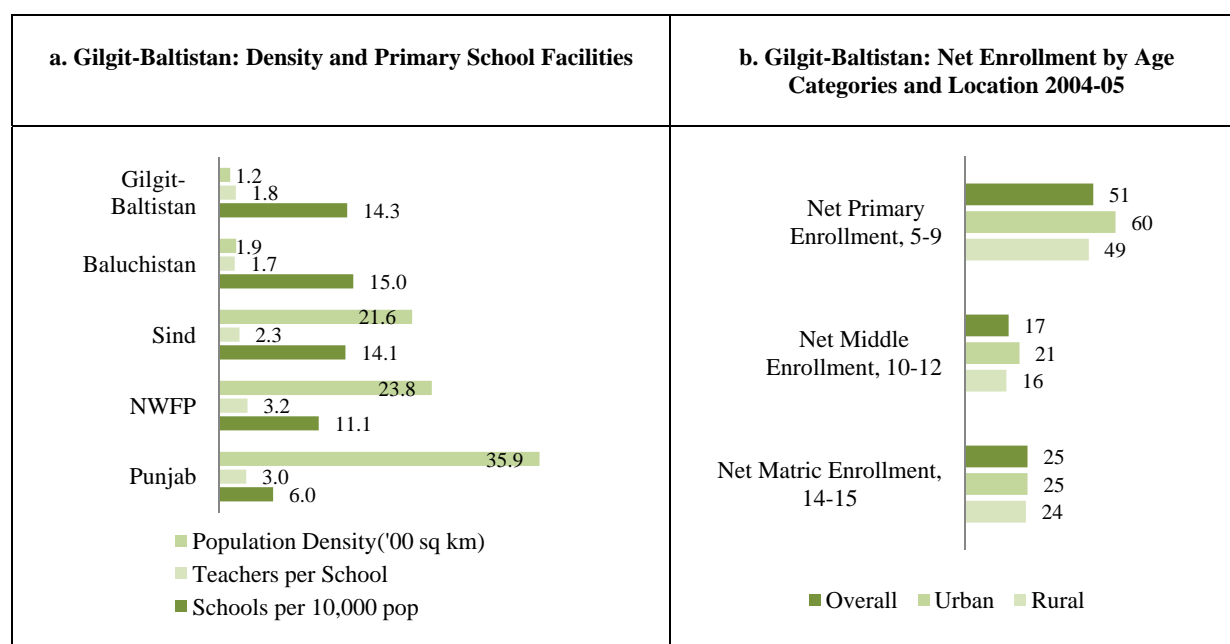
<sup>99</sup> A growing body of empirical evidence supports this conclusion. For example, over the past century, higher Enrollment rates among African Americans in the South of the US are believed to have led to a virtuous circle, where better education enabled the successful pursuit of income earning opportunities elsewhere in the US, which then stimulated higher human capital investments (increased enrollment rates), as people consider not only local returns to their investment, but also the returns in other locations (WDR 2009).

## Key Challenges

### *Schools in Remote Areas Lack Basic Resources*

5.44 The provision of public schooling is a daunting challenge in many of the small isolated communities of GB, where transportation possibilities are limited, uncertain and costly (providing services in the communities cut-off by the Attaabad landslide is very difficult). Under such circumstances, policy makers have sought to open many schools, each serving a small catchment area, with multi-grade classrooms. The outcome is a proliferation of schools, many of which lack the most basic resources and teaching capacity (Figure 5.4a). GB and Balochistan—two of the least densely populated regions in the country—have the highest number of primary schools per capita, and the lowest number of teachers per school. A comparison between enrollment rates in urban and rural areas belies the expected impact of differential population density. In particular, the unit cost of providing public services is comparatively higher for more sophisticated services like secondary and tertiary education, than for basic services like primary schooling. This means that the enrollment gap between urban and rural areas is expected to be smaller for primary schooling than for matric level education. The data point to the converse (Figure 5.4b). This suggests that GB has made important strides in providing equitable access, perhaps in large measure through the targeted efforts of CSOs and government supported community schools.

**Figure 5.4. Population Density vs Primary School Facilities and Net Enrollment**



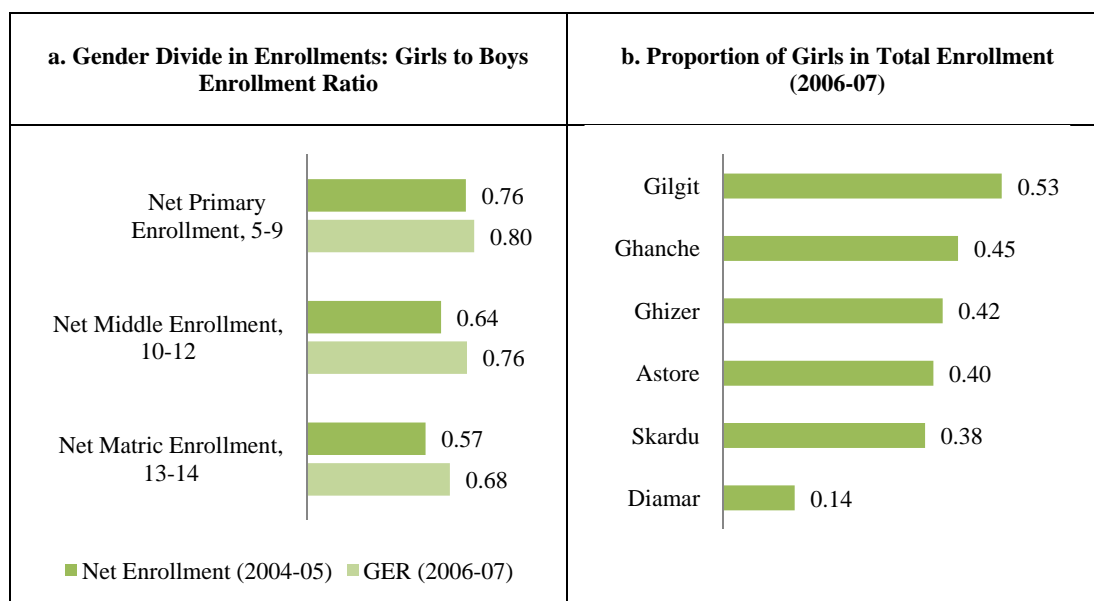
Source: Staff estimates based on Pakistan Education Statistics 2005-6; Pakistan Population Census 1998; PSLM 2004-05.

5.45 Still, operating education facilities at the high school and college level requiring specialized staff and teaching resources can be viable only in locations that have larger populations and can serve a greater catchment area. This means distance to schools and the availability of connective infrastructure become key determinants of access to higher education. In the context of GB, long distances and limited availability of connective facilities (infrastructure and transport) implies that students have to walk great distances every day to attend school, which eventually affects their performance. It also means that students may need boarding facilities even when the education facilities are available at modest distances from their homes. Limited transport and boarding facilities, coupled with the issues of affordability, force parents and policy makers to choose between two unsatisfactory options: open new schools that are under resourced in terms of teachers and building facilities, or discontinue children's education.

### Long Walks to School Hamper Female Enrollment

5.46 The impact of distance is more pronounced on girls' participation in education, especially at the middle school level and above. Figure 5.5a shows that girls' participation in education is lower than males in general but the gender gap is much wider at the higher levels of education. Division in access to education created by cultural norms leading to a bias against investing in girls' education, and sensitivities restricting the mobility of young women, give rise to these gender outcomes in education. The issue is particularly acute in the district of Diamer and to some extent in pockets of Skardu, which by no means are less connected than Ghizer and Ganche, but perform poorly on girls' education due to a more pronounced gender bias.

**Figure 5.5. Gender Divide in Enrollments**



Source: Staff estimates based on PSLM 2004-05 and NEMIS 2006-07.

5.47 The distance education programs of the Allama Iqbal Open University (AIOU) and Virtual University are helping overcome the obstacles of distance and division in post-secondary education, particularly by enabling women to access services from the privacy of their homes. Though the exact numbers for distance enrollments are not known, anecdotal evidence suggests that a significant portion of employed workers in GB, particularly women teachers, pursue distance education to advance their skills and careers. Major issues, however, remain with regard to the quality of learning and the effectiveness of existing performance measurement mechanisms.

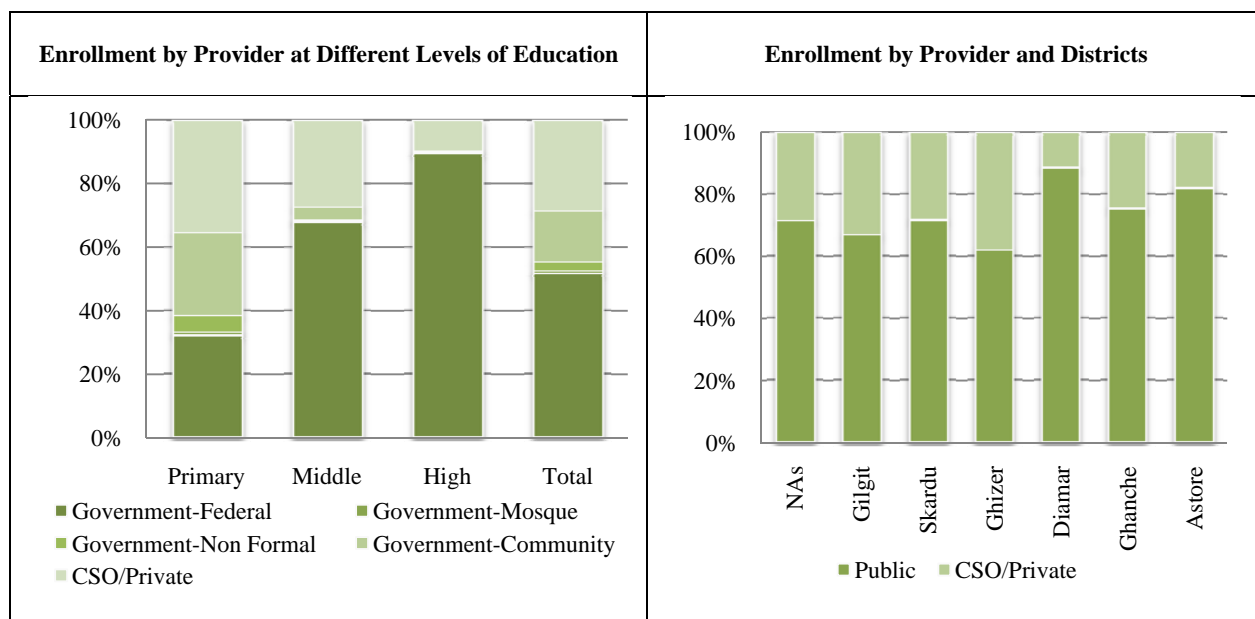
5.48 In a nutshell, overcoming the constraints discussed here calls for a broad range of interventions. Investing in efforts that facilitate the mobility of students, such as transport and boarding facilities, are crucial. Special supply and demand side interventions are warranted to address the issue of girls' access to education, particularly in lagging districts. These include additional investments in girls schooling facilities, as well as expanding scholarships and conditional cash transfer programs, for example. Similarly, collaborative arrangements between the government and non-government actors to deliver distance education programs would benefit from more attention.



## Public Administration and Policy Issues: Gaps in Planning, Capacity, and Quality

5.49 As noted above, the high dispersion of the population has led to the proliferation of educational facilities in GB. Currently, a total of 2,239 government and non-government schools operate in the region. The public sector is the dominant provider, especially at the high school level, accounting for 75 percent of all schools and 71 percent of gross enrollments (Figure 5.6). Since education in the region is provided through different arrangements, ensuring equity and adequate quality in a large and diverse education network becomes a daunting challenge.

**Figure 5.6. Enrollment by Provider and Districts**

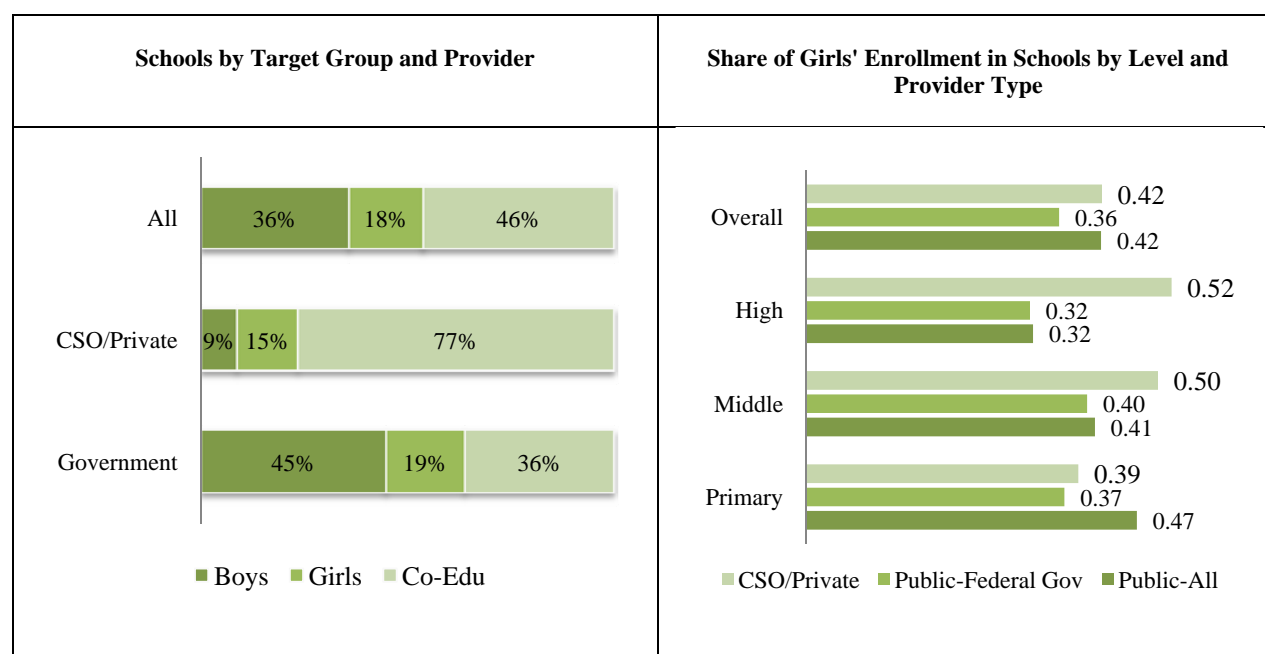


Source: NEMIS 2006-07.

5.50 Effective administration of the education sector is hampered by complicated governance arrangements and difficulties in hiring, training, and retaining qualified staff. Accountability mechanisms need to be strengthened, emphasizing the ‘short route of accountability’ between the client and the school, as compared with the ‘long route’ from the client to the GoGB and on to the school. Special incentives may be needed to address capacity issues. In this context, several policy issues arise, pertaining to narrowing the gender gap, lowering the dropout rate, raising quality, and providing tertiary education services.

5.51 *Gender:* Concerns about gender ratios are not receiving adequate attention in education planning and spending. Currently, public sector schooling is biased towards boys’ education, accentuated further at the middle and high school levels (Figure 5.7). Yet it is especially at the middle and high school levels where girls’ mobility is more restricted, thus limiting their access to schooling. Investment in middle and high school facilities for girls and hiring female teachers is crucial, but will need to be supplemented by demand side interventions such as increasing awareness and sponsoring girls’ education in lagging districts. The Aga Khan Education Services Pakistan (AKESP) has been focusing on girls’ education, seeking to enhance their access to higher levels of education.

**Figure 5.7. Schools by Target Group and Share of Girls' Enrollments**



Source: NEMIS 2006/07.

**5.52 Retention:** The high dropout rate, especially among students studying in public schools, poses another key challenge. About 42 percent of all enrolled students drop out of school before completing their primary schooling (see Table 5.1 for internal efficiency rates). In addition, high levels of student attrition also occur at the points of transition, that is, when students graduate from primary to middle school and from middle to high school. While the availability of schools closer to home and lower gender divisions reduce attrition rates to some extent, greater attention needs to be given to initiatives that incentivize parents to keep their children in school. These could include conditional cash transfers and school nutrition programs, as well as educating and involving parents in school related matters. Such steps will be essential if retention and transition rates are to be improved.

**Table 5.1. Internal Efficiency Indicators**

	Katchi	I	II	III	IV	V
Promotion Rate	63	74	78	77	72	55
Repetition Rate	20	11	12	12	15	18
Dropout Rate	17	15	10	11	13	27
Survivors to the Grade	100/0	79/1	65/1	58/1	51/0	43/3

**5.53 Quality:** GB also faces major issues on the quality of education. This is reflected in weak standardized test scores under the National Education Assessment System (NEAS). For example, the test scores for Grade IV in GB remain below the set mean of 500.<sup>100</sup> The NEAS findings suggest that the test scores in GB do not differ much across districts and rural-urban locations. Still, there are substantial differences across gender. Girls do better than boys in all subjects, particularly in Urdu and Science.

<sup>100</sup> Basic competencies in core subjects are assessed, including evaluating reading, writing, problem solving and critical thinking skills relative to peer groups.

Another clear finding of the assessments is that the use of local languages is correlated with better student achievements in science, mathematics and social studies.<sup>101</sup> A study conducted in Skardu district found that the performance of students from government schools in secondary exams is consistently lower than those studying in CSO/Private sector schools (Table 5.2).<sup>102</sup>

**Table 5.2. Secondary Results for District Skardu 2002-2006**

Type of School	Level	Total in Examination	Pass	Fail	A+	A	B	C	D	E
Government School	Freq/Students	3122	1523	1599	0	30	215	687	576	15
	Average		49%	51%	0%	1%	7%	22%	18%	1%
Private Schools	Freq/Students	676	625	51	30	132	227	192	44	0
	Average		92%	8%	4%	20%	34%	28%	6%	0%

Source: Ilyas, 2007.

5.54 While the quality of education in public schools generally remains a key concern, there are some examples of good delivery of public education as well. The students of the Ganche district, historically one of the lagging districts in the region, achieved the highest results for class 10 in recent exams, and the results have been improving continuously for the past five years.<sup>103</sup> Regular monitoring by district education staff through visits to every school in the district at least once a month, and the imposition of penalties like docking pay, is helping to reduce absenteeism and improve performance. Similarly, students are incentivized through prize money to participate in standardized examinations at schooling grade V and VIII. As a result, the district administration has school-wise and student-wise information on test results which indicate that the passing percentage has increased steadily since 2003 for all levels of schooling—from 92 percent to 96 percent in *Katchi*, from 55 percent to 82 percent in Grade IX, and from 18 percent to 55 percent in Grade X.

5.55 *Tertiary education:* Finally, the government's ability to facilitate college and university level education is also constrained by gaps in planning and capacity. The newly created Karakoram International University (KIU)—the only public institution providing education at the masters' level—faces difficulty attracting and retaining qualified faculty to ensure the competitiveness of its programs. Similarly, the lack of KIU affiliated residential and boarding facilities for staff and students also creates disincentives. While addressing faculty and boarding constraints for KIU and other colleges will require added incentives, meeting demands for higher education in diverse fields would necessitate continued mobility of young students to the cities in other parts of Pakistan. Statistics show that about one in four students migrate to major cities outside GB to acquire higher education.<sup>104</sup> Hence, investing in portable assets remains essential.

### ***Financing Education Services***

5.56 Public spending on education absorbs a substantial portion of the overall budget. In 2007/08, it was the third largest sector in the ADP, behind roads and electricity generation, with an allocation of about 15 percent of the total. While nominal spending on education has been rising, GB's expenditure as a share of

<sup>101</sup> While this finding is consistent with prevailing theory, translating this into policy will require a significant adjustment in the expectations of parents who consider English medium schooling to be synonymous with higher quality.

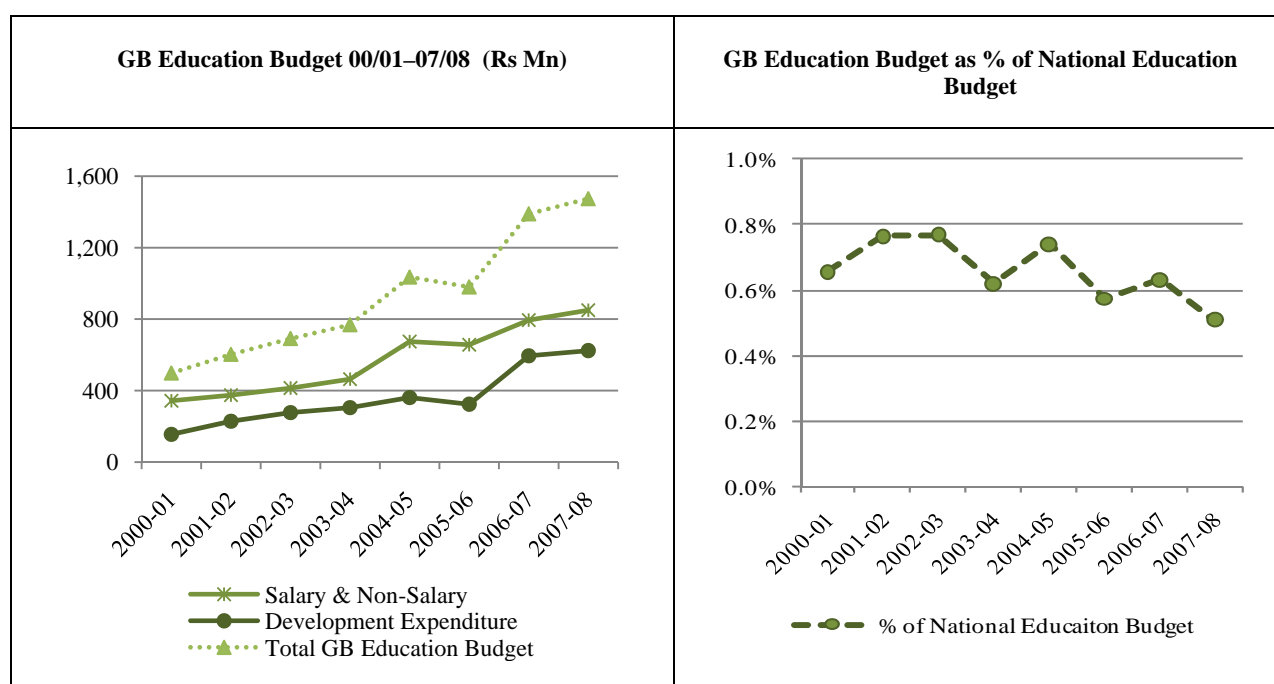
<sup>102</sup> AKES-P schools average a pass rate of 88 percent at Grade X. See AKF (2007): Education in the Northern Areas.

<sup>103</sup> Statement showing annual results from infant to 10<sup>th</sup> between 2003 and 2007 – Education Department, Ganche.

<sup>104</sup> Based on AKRSP Socioeconomic Surveys (2001 and 2005).

national spending on education has fallen (Figure 5.8). It is also worth noting that a large share of spending has been devoted to capital spending, especially model schools, without due regard for the recurrent cost implications. Even the capital spending is typically underfinanced and hence incomplete. A greater emphasis is needed on the ‘software’ side of education, addressing the shortfall of teachers and upgrading existing public schools. Incredibly, the GoGB estimates a shortfall of 2,800 teachers in existing schools, which seriously undermines the quality of instruction. Attracting and retaining teaching talent is difficult, and greater allocations are needed for teachers’ salaries.

**Figure 5.8. Education Budget for Gilgit-Baltistan (2000/01 – 2007/08)**



Source: Northern Areas Education Strategy 2008-25.

5.57 Spending financed by donors routed through the GoGB budget has faced similar issues: supporting substantial progress over the lifetime of the project, but then encountering problems of sustainability when the project comes to a close. The Social Action Program (SAP)—a nationwide social sector development program funded through the World Bank, ADB and other major donors—led to the opening of 538 community schools in GB and a surge in enrollments. Soon after the project ended, however, problems of sustainability emerged as falling interest rates on the school endowments lowered earnings that were created to finance teachers’ salaries. The US\$36 million Northern Areas Education Project (NAEP), an undertaking of the World Bank, DfID, the GoP and local communities, provided a lifeline to SAP schools from 1998 to 2003, even introducing a child subsidy of Rs. 60 per month per child. After the completion of the NAEP, the problem of sustaining the SAP schools surfaced once again (see Annex 12).

5.58 These deficiencies have induced greater spending on education by households, more than in any other province of Pakistan. The PIHS 2001-02 shows that household spending on education in GB accounts for 3.5 percent of spending, compared to 3.0 percent in Punjab, 2.7 percent in Sindh, 2.5 percent in the NWFP and 1.9 percent in Balochistan. Moreover, the share of education in overall household

spending has increased rapidly in recent years.<sup>105</sup> In the Gilgit region, it rose from 5 percent in 1991 to 12 percent in 2005, while in Baltistan, the corresponding figures show an increase from 3 to 12 percent. The growing prioritization of education remains an important determinant of higher spending, but the rising cost of education also plays an important role, particularly in private and non-government schools, which are increasingly preferred for their perceived higher quality. Elevated costs are also associated with the desire for more sophisticated public services, as new cohorts of primary school graduates seek further learning opportunities. Parents who send their children to government schools also incur costs associated with their children's education. A local NGO, the Hashoo Foundation, which operates in the Ghizer district and covers the cost of schooling for the poorest of the poor, estimates that the cost of one year in secondary school, including uniforms and books, is in the range of Rs. 8,000-9,000.<sup>106</sup>

### ***CSOs and the Private Sector: Complementing the Public System***

5.59 CSOs and private sector providers play a strong complementary role in the provision of education services. As noted above, about 29 percent of gross student enrollments in the region are in CSO/private schools, with better performance reflected in higher student grades (as noted above) and greater retention rates. For instance, the primary completion rate in AKESP schools is well above the average for the region. Around 84 percent of girls and 65 percent of boys in AKESP schools complete primary schooling against the region's average of 55 and 34 percent for boys and girls respectively. Targeting girls' education, investing in teacher quality, and enhancing accountability to beneficiaries by involving parents in the management of schools, are other key areas where CSOs have added value.

5.60 In general, CSOs and private sector providers seem to concentrate on primary education, though their outreach at the middle and high school level, particularly for girls, is gradually increasing. CSOs are particularly active in trying to overcome gender divisions in more remote parts of GB where public service delivery has generally been inadequate. Catering to the education needs of girls, especially at the middle school level in Ghizer through AKESP schools, arranging middle school education for girls in Bara Ganche through community schools, providing financial assistance to students from poor families, promoting adult literacy in Baltistan through AKRSP and community sponsored literacy centers, and delivering a home-based literacy program through *Parbat*—a local CSO in Diamer—are all examples of the CSOs' complementary role in the education sector. Large CSOs, such as AKESP and PDCN, have also been important in providing upstream services like faculty development (Box 5.6).

### **Box 5.6. The Role of PDCN in Capacity Building**

The Professional Development Center NAs (PDCN) is a flagship non-governmental teacher training institute which was established in 1999 as a joint venture of the Aga Khan University and AKES-P. The Center offers certificate level courses as well as an advanced diploma in Primary Education. It also organizes workshops for field staff of AKES-P and members of school management committees, training courses in Urdu for secondary school teachers, and a host of other programs for teachers and policy makers of both public and private institutions. The Center has trained 3,577 people over the eight years of its existence. Demand for its training programs is very high, both from teachers who see tangible rewards to their career prospects and from institutions which can attribute improvements in education quality to the increase in teaching effectiveness. Lessons learnt from this model could be valuable in informing and improving the effectiveness of other teacher training programs, both public and private.

<sup>105</sup> AKRSP Socioeconomic Surveys (various years).

<sup>106</sup> Field interview with Mr. B. J. Shams Regional Manager, Hashoo Foundation.

5.61 In the domain of technical and vocational education, where until recently the public sector has largely been absent, CSOs like AKRSP, AKCSP, KADO, and BCF have played a vital role. As noted above, these CSOs have imparted training to men and women in a wide variety of disciplines in the farm and non-farm sectors to boost productivity and improve prospects for employment (Box 5.7). A salient feature of these CSO sponsored capacity building programs has been their ability to include and train men and women who were not literate. Training programs aimed at improving the management and value addition in crops, livestock, forestry and handicrafts are noteworthy examples of CSOs' role in expanding the base of vocational skills in the region.

### Box 5.7. Overcoming Gender Gaps with Targeted Vocational Training

Aiming to enhance opportunities for women, the Aga Khan Cultural Service, Pakistan (AKCS-P) established a training program in plan-table surveying. Funded by the Norwegian Embassy, the program has provided on-the-job training to over 60 women from Hunza, Ghizer, Shigar and Khaplu, in diverse fields such as architectural and engineering surveys, geographic information systems, design and drafting, masonry, carpentry, plumbing, electrification, archaeological surveys, and documentation of historic buildings. Supervised by professional engineers, architects, master carpenters and masons, the women are working with modern technology and continuing to acquire more technical skills, such as sketching, drawing, scanning, and digitizing images using computers. Over the years, this training programme for female school drop-outs has evolved to become the first women's enterprise in GB to market such technical services in an area once considered the exclusive domain of men.

The trainees' skills were demonstrated by the preparation of the detailed technical, engineering, and architectural documentation needed for the renovation of the 900 year-old Altit Fort in 2005. In 2007, the group even provided technical assistance to a batch of young men and women in Khorog city, Tajikistan. The program has been instrumental in breaking down gender barriers, and opening new income earning opportunities for women.



Surveying a Total Station in Sost, Hunza.



Preparing a wooden cribbage column in Aliabad, Hunza.

5.62 A salient feature of education delivery in GB is the proven ability of the government, CSOs and communities to work in a collaborative manner. The implementation of the Social Action Program (SAP) with communities' involvement in cost sharing and oversight, and the development of adult literacy programs under a partnership arrangement between the National Commission on Human Development (NCHD) and AKESP, are some examples of this participatory spirit. Similarly, in the domain of vocational and technical skill building, the GoGB implemented a women's entrepreneurship program in collaboration with AKRSP as well as a computer literacy program in partnership with KADO. A strategic collaborative effort between the GoGB and AKESP has been the preparation of GB education strategy for 2008-25 (Box 5.8).

### Box 5.8. Strategic Pillars of the GB Education Strategy

#### **I: Access and Equity**

- Gender equity throughout the whole education system at all levels.
- Inclusive education wherever possible; special centers for those learners who cannot be integrated into mainstream education.
- Access to Early Childhood Education for all 3–5 year olds.
- Free and compulsory Universal Elementary Education.
- Access to free education to matriculation.
- Access to education beyond matriculation for all who wish, through the establishment of colleges and the provision of scholarships and other financial incentives for needy families.
- Distance learning opportunities available for all – education considered to be a lifelong process.

#### **II: Quality and Relevance**

- Medium of instruction for the first three years of the learner’s education to be in the mother tongue wherever possible; thereafter Urdu or English according to local decision.
- Teaching methodologies based on principles of active, student-centered learning with a focus not just on knowledge, but also on skills, problem solving, creative thinking and analytical thinking.
- Curriculum, learning materials and assessment systems at all levels revised according to the requirements of Gilgit-Baltistan.
- Computers with internet connection an integral part of schools, colleges and classrooms.

#### **III: Governance and Management**

- Status of teachers raised by analyzing salary levels in comparison with other professions. Salaries and promotion for teachers will be linked to both level of qualifications and classroom performance.
- Quality of teaching improved through strengthened pre-service and in-service training programs, with additional teacher training colleges established.
- Incentives provided to attract teachers of shortage subjects, and for teachers in remote and difficult areas.
- Heads and teachers appointed on merit; head teachers required to be and recognized as professional leaders.
- Professional support to teachers from both training providers and DEOs.

5.63 Against this backdrop, increasing quality in the public education system will require concerted effort towards building teaching resources in existing schools and changing spending practices to ensure an adequate flow of resources for salaries and recurrent expenditures. On the demand side, given the increasing costs of quality education, the mounting risk of dropout from schools needs to be monitored and requires added investment in safety nets and scholarships. Similarly, facilitating students’ mobility from GB to other cities in Pakistan for higher education is crucial as the local capacity to meet the education needs and demands of a burgeoning student population remains limited. Finally, GB needs to build further on the strengths of CSOs to work in the domains of teacher training, curriculum development, performance monitoring, and the delivery of market-oriented skills.

### **Looking Ahead: Policy Options**

5.64 The economic geography and governance realities of GB present a strong rationale for investing in people. Enhancing the abilities of the workforce and facilitating the transition into more productive jobs both within and outside the region should, therefore, constitute the core of the education strategy. Three critical aspects stand out: a) improving access and retention at all levels of schooling, b) enhancing the quality of education, and c) strengthening the link between education and employment. Making meaningful progress on these fronts would require enhancing the capacities of providers and policy

makers, improving the effectiveness of public planning and spending practices, and building synergies with CSOs and the private sector.

### ***Improving Access to Education***

5.65 Expanding the pool of educated workers will depend on increasing enrollment, with a particular emphasis on rural-urban, as well as gender disparities, and reducing dropout rates.

- **For immediate action:** Incentivize more girls' schooling by upgrading at least one co-ed primary school in each district (where there are several such co-ed primary schools) into a girls public school extended to middle and secondary level in locations serving larger catchment areas, and including boarding facilities. Fill existing vacancies of female teachers as a matter of urgency, and implement a conditional cash transfer program to increase and sustain enrollment in schools, with a special emphasis on covering girls in underserved areas like Diamer.
- **For pursuit over the medium-term:** Provide affordable transportation and boarding facilities for secondary, college and university level students within GB, as an integral element of expanding access to education.

### ***Raising the Quality of Education***

5.66 Ensuring greater quality in education, particularly at the early stages of education, is crucial to improving long term learning and employment outcomes. To this end, improving teaching content, building teachers' capacities and enhancing incentives for better performance require greater attention.

- **For immediate action:** Invest more in the professional training of teachers along with improving the teaching support materials in schools, and strengthen the assessment system to provide important feedback for improving the quality of education.
- **For pursuit over the medium-term:** Increase accountability by enhancing the involvement of communities and parents in performance monitoring of teachers and students. Revise spending practices to increase the salaries and performance based rewards for teachers.

### ***Enhancing the Relevance of Education to Employment Needs***

5.67 Building the skills needed to ensure employment and underpin growth hinges on expanding vocational training, focused on the closing critical gaps.

- **For immediate action:** Increase vocational training opportunities, building on initiatives like the collaboration between the Serena Hotel and AKRSP to provide hospitality training. Such efforts could usefully be complemented by internship programs, helping to ease the transition into the work place.
- **For pursuit over the medium-term:** Seek collaboration with and accreditation from national and international institutions of good repute to design and deliver competitive degree programs at KIU and raise the employability of graduates. Forge linkages with the private sector and key public institutions like WAPDA to design and deliver demand-oriented programs in the proposed TVE institutions.



## **5.4. Improving Health Outcomes**

5.68 While there have been strong gains in some parts of GB, health outcomes generally lag behind those of the rest of Pakistan, which is itself among the lowest performing countries in terms of the MDGs. Maternal and child health care are a particular concern. Aspirations to sustain existing levels of health care and seek further improvements face formidable obstacles and will require concerted effort as well as substantial resources. The performance on health care provision and utilization also has an important bearing on growth prospects.

5.69 The dispersion of the population in the inhospitable and rugged terrain of GB greatly increases the unit costs of health care provision, and raises a series of related issues. For example, the unavailability of electricity or gas in remote areas means that heating and cooking is fueled by firewood, leading to indoor air pollution and a high incidence of acute respiratory infection. The difficulty of providing education services translates into high levels of illiteracy, especially among women, complicating efforts to increase health care utilization. Finally, there are far too few female health care workers, and norms segregating providers and patients by gender has resulted in particular difficulties in the areas of maternal and child health. Providing emergency medical assistance across a range of geographic barriers (like the Attarabad landslide and lake) is very difficult.

5.70 Addressing these challenges and attaining even modest levels of health care requires substantial effort and spending. The GoGB is the main provider, supported in some areas by active CSOs, such as the Aga Khan Health Services Pakistan (AKHSP). Given the scarcity of resources, effective delivery is particularly important, and several issues stand out. Government funding places excessive emphasis on capital spending, to the neglect of operational needs (especially in primary health care), undermining the quality of care today, and leading to mounting problems in the coming years. Capacity is a major concern at all levels, and providers are finding it difficult to train and retain adequate staff to deliver core services. Finally, public administration and accountability arrangements are complicated, and with a plethora of providers (many focused on specific diseases or geographic areas), coordinating for maximal impact is difficult.

5.71 Several recommendations flow from the analysis below. A human resource strategy that makes working in GB more attractive, both directly for the Directorate of Health and for the CSOs in the field, needs to be developed and implemented as a matter of urgency. The prioritization of health spending needs to be changed, with a view to shifting more resources into operational budgets, as well as enhancing primary health care. Finally, efforts are needed to improve coordination among different providers, as well as increase accountability.

### **Development Performance to Date**

5.72 This section elaborates on the brief discussion of the health MDGs in Chapter 2, reviewing in more detail the status on maternal and child health (MCH), family planning, the control of communicable diseases, and nutrition. It also discusses emerging health problems such as non-communicable diseases, and notes progress made in eradicating endemic diseases such as leprosy and iodine deficiency. In most cases, greater efforts on the part of the authorities to gather data, establish baselines, and monitor progress would be very valuable. Much of the survey data, for example, is more than 10 years old, limiting its usefulness in underpinning policy. In addition, a breakdown of health outcomes by districts is needed to adequately monitor progress at the district level, and to guide district health investment priorities. The sample sizes of existing national surveys, which were conducted by the Federal Bureau of Statistics, are insufficient for computation of district level data. Specific health and demographic surveys and/or multi-

indicator cluster surveys, which are done in the provinces, need to be conducted periodically in GB. Research gaps need to be addressed in collaboration with the Federal Bureau of Statistics.

### ***Maternal and Child Health***

5.73 The performance of MCH services in GB lag behind the rest of the country, and appear to have weakened over the past decade from the higher levels attained through the Social Action Program at the end of the 1990s (Table 5.3). Rates of antenatal care provision, for example, are higher than the rest of Pakistan, but fell from 48 percent in 1999 to 41 percent in 2006.

**Table 5.3. MCH Outputs at Health Facilities**

<b>Key Indicators</b>	<b>NA</b>	<b>Pakistan</b>
% of Births Registered	24%	-
% of Children <1 year Monitored for Growth	4%	24%
% of Pregnant Women Provided Antenatal Care	41%	12%
% of Deliveries Conducted at Health Facility	21%	23%
% of FLCFs Providing Family Planning Services*	17%	47%
Average Number of FP Clients	25	20

\* First Level Care Facility (FLCF).

Source: National HMIS 2006

5.74 These trends are also reflected in the outcomes on MCH. A survey carried out in 1998/99 found that the infant mortality rate (IMR) in GB was 122 per 1,000 live births, much higher than the national average of 86 per 1,000 live births. This means that one in ten infants dies before age one.<sup>107</sup> Comparable data that is more recent is unavailable, but is likely to show levels that continue to be higher than the national average for 2006/07, which fell slightly to 78 per 1,000 live births. Even the latter remains far above the rates in low income countries with successful health programs, such as Sri Lanka with an estimated rate of 15 per 1,000 live births.<sup>108</sup> Studies indicate that most infant deaths (61 percent) occur during the neonatal period (the first month of life), and that neonatal mortality has shown little improvement during the last three decades, contributing to a residual IMR unaddressed by existing child care programs.<sup>109</sup>

5.75 Maternal mortality rates in GB are also unacceptably high, estimated at 600 deaths per 100,000 live births in 1998/99, more than double the figure for the rest of Pakistan.<sup>110</sup> Most deaths of young females during childbirth are preventable and are due to a lack of essential health care services during pregnancy and childbirth. The high MMR lowers overall life expectancy through the premature deaths of females, and contributes to the inverse sex ratio in GB's population of 109 males for every 100 females. It also leads to increased neonatal and child mortality, and reflects gender bias in health care delivery. More recent comparable data are again not available, but any improvements are expected to be incremental in the absence of a concerted program targeting maternal health.

<sup>107</sup> Pakistan Integrated Health Survey 1998/99.

<sup>108</sup> Pakistan Demographic and Health Survey 2006/07.

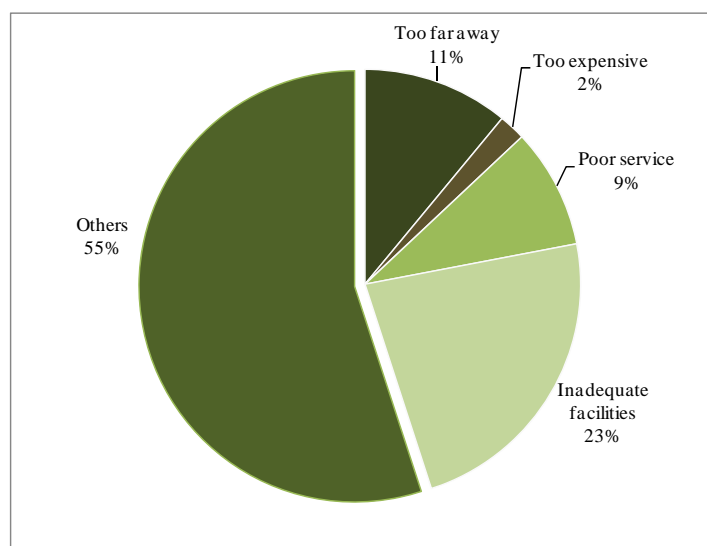
<sup>109</sup> Save the Children USA (2001). 'State of the World's Newborns: Pakistan, Saving Newborn Lives Initiative, 2001'; Bhutta ZA (2000). 'Why has so little changed in maternal and child health in South Asia?' Br Med J 2000; 321: 809-12.

<sup>110</sup> Pakistan Integrated Household Survey 1999 and Pakistan Demographic and Health Survey 2006/07.

## ***Fertility and Contraceptive Usage***

5.76 The population welfare program was established only in 2002, and has been providing family planning services through 40 facilities across GB. A parallel system of village-based family planning workers is also in operation, but they play a smaller role in providing community-based services, with Lady Health Workers (LHWs) the main suppliers of contraceptives in GB. These efforts are not integrated with the first level care facilities, most of which are without family planning services. An integrated approach is needed if provision is to be enhanced to meet unmet demand. Surveys indicate that 70 percent of eligible couples want family planning services, but only 23 percent are regular users.<sup>111</sup> Among non-users, 45 percent cite supply side factors, including inadequate facilities and large distances, as the reason why they do not access family planning services (Figure 5.9).

**Figure 5.9. Reasons for Non-Usage of Family Planning Services**



Source: PSLM 2004/05.

5.77 The total fertility rate (TFR) showed a small decline from 5.3 to 4.9 over the decade to 2007, remaining substantially above the national average of 4.1.<sup>112</sup> The fall is associated with an increase in the contraceptive prevalence rate (CPR) from 14 percent to 24 percent in GB during the same period. However, these figures are also below the national average CPR of 30 percent, and both fall far short of the 20/20 Vision of the National Population Welfare Policy, which envisages reducing the TFR to the replacement level of 2 and ensuring universal access to contraceptives. High fertility rates are associated with inadequately spaced births, which are detrimental to mother and child health by contributing to poor nutritional status, pregnancy complications, as well as maternal deaths, fetal deaths, prematurity, and adverse post-neonatal outcomes.<sup>113</sup> In addition, they sustain high dependency ratios, making it harder to raise per capita incomes.

<sup>111</sup> Population Projections 1998-2007, National Institute of Population Studies, December 2007.

<sup>112</sup> Pakistan Demographic and Health Survey 2006/07; Population Projections 1998-2007, NIPS, December 2007.

<sup>113</sup> WHO (2006). Report of a technical consultation on birth spacing, World Health Organization, Geneva, 13-15 June 2005.

## *Communicable Diseases*

5.78 As GB moves into the demographic transition, it is acquiring a double burden of disease, where the incidence of non-communicable disease increases before communicable diseases have been brought fully under control. The communicable disease burden remains high, accounting for 24 percent of all deaths, 51 percent of deaths from major known causes, and a third of all illnesses.<sup>114</sup> Diarrhea and acute respiratory infection (ARI)/pneumonia remain major problems and together are the major causes of morbidity and mortality. These diseases particularly affect children under 5 years of age and are the primary killers contributing to the high IMR. Cross-sectoral actions, such as water and sanitation improvements and expanding the use of smokeless stoves, are needed to effectively reduce diarrhea and ARI.

5.79 The Leprosy and Tuberculosis (TB) Control Program is a joint effort of the Department of Health and the Marie Adelaide Leprosy Center (MALC), which was initiated together with the Northern Health Project in 1998. The program provides TB and leprosy control services in 22 TB centers as well as a 15 bed hospital. Technical assistance, supervision, and therapy are provided by the MALC. Leprosy is considered under control in GB with no new cases—a success—but TB remains an endemic problem in GB. While the treatment success rate is higher than the national average, the case detection rate is poor, with only 3 percent of patients with chronic coughs being screened. An increasingly high burden is amongst children, and preventive efforts need to be stepped up.

5.80 HIV infection appears to be negligible in GB, with only one detected case to date. Hepatitis B and C are of more immediate concern, with available evidence showing infection rates of as much as 7 percent for Hepatitis B and 1 percent for Hepatitis C. However, existing data is based on screening blood products rather than patients, and additional screening efforts are needed to target high risk groups, in order to be able to enhance prevention, treatment and control, as well as generate the data needed to better understand risks. For example, 80 percent of the population is not immunized against hepatitis. Infection is also facilitated by unsafe injection practices, and about 50 percent of health providers lack safe injection equipment and 80 percent lack proper injection disposal protocols.<sup>115</sup>

## *Emerging Non-Communicable Diseases*

5.81 There is a growing prevalence of non-communicable health problems, such as hypertension (high blood pressure), chronic obstructive pulmonary disease (COPD), cardiovascular disease, cancer, and injuries. Non-communicable illnesses account for a third of the total and close to half the deaths from major causes. Targeted control programs are urgently needed.

5.82 Eight percent of all deaths in the population are due to cardiac complications. The prevalence of hypertension (high blood pressure) in people over 40 years was 14 percent in 2000, broadly in the same range as the rest of the country, but in GB it has increased three fold in men and doubled in women over the past ten years (Table 5.4).<sup>116</sup> Known risk factors such as obesity, cigarette smoking, and anxiety have risen significantly. Countrywide evidence shows that most hypertension cases are uncontrolled due to a lack of early detection capacity and poor management.<sup>117</sup>

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<sup>114</sup> AKHSP Pakistan Demographic and Health Survey 2000.

<sup>115</sup> Samad L (2001). Rapid Northern Areas Assessment, Centre for Injection Safety, 2001.

<sup>116</sup> Shah et al (2001). Hypertension and its Determinants Amongst Adults in High Mountain Villages of the Northern Areas of Pakistan, *Journal of Human Hypertension*, 2001, 15: pp107-112; AKHSP Health and Demographic Survey 2000; Northern Health Project Baseline Survey 1999.

<sup>117</sup> Northern Health Project Baseline Survey 1999.

**Table 5.4. Prevalence of Non-Communicable Diseases and Risk Factors**

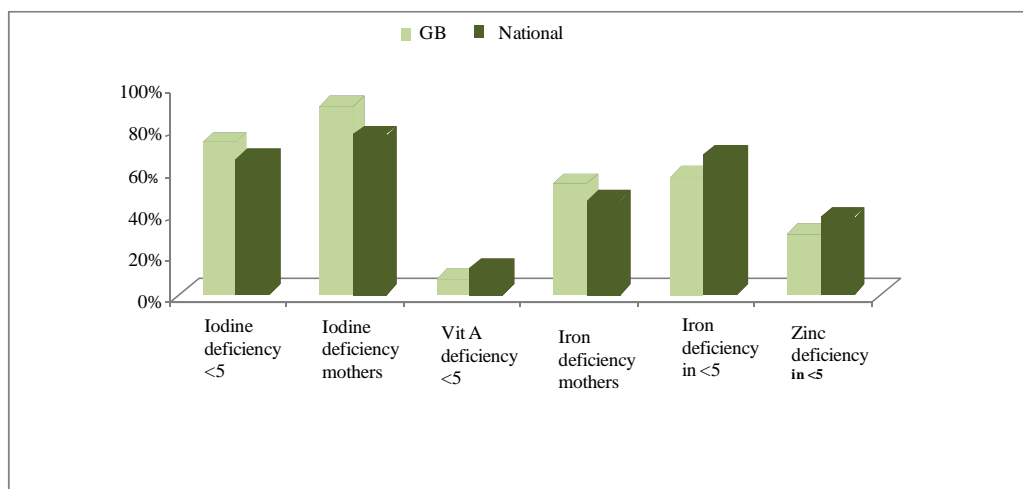
	1995-2000		2007	
	Males	Females	Males	Females
Hypertension	12.5%	14%	40%	33%
Cigarette use/ environmental tobacco exposure	20%	3%	25.4%	17.7%
Obesity	13.5%	14%	19%	24%
Anxiety & depression	-	34%	29%	48%
Accidental injuries	5%	4%	12%	6%

Source: Shah et al 2001, 2004, 2008; Ahmed et al 1999; Hyder et al 2008.

5.83 The largest morbidity burden amongst adults appears to stem from high levels of COPD, with asthma and chronic cough accounting for 14 percent of all illnesses. As in the case of ARI amongst children noted above, indoor air pollution due to burning wood for cooking and warmth during the long winter months is an important contributor to COPD. Exposure to cigarette smoking, while less prevalent than in the rest of the country, has also risen significantly in recent years.

#### ***Presence of Micro-Nutrient Deficiencies and Chronic Malnutrition***

5.84 The introduction of iodized salt is an important success story for GB, reducing overt iodine deficiency and the incidence of cretinism. As noted above in the section on the MDGs, GB also performs better than much of the rest of Pakistan in the area of acute protein-energy malnutrition (wasting and underweight). Micro-nutrient deficiencies and stunting (chronic malnutrition affecting 38 percent of the population) are more prevalent than in other parts of Pakistan, and sub-clinical iodine, zinc and iron deficiencies are also common (Figure 5.10 and Table 5.5). Chronic malnutrition is also associated with repeated bouts of illnesses and worm infestation. Better control of childhood disease and annual de-worming of children needs to be promoted. A concerted micro-nutrient strategy is also essential to ensure sound basic nutrition for all and avoiding the adverse impacts of malnutrition, which include increasing the risk of infection and child deaths, retarding the learning and physical abilities of children, and complicating pregnancies.

**Figure 5.10. Nutrition Status: Women and Children Under 5 Years**

Source: National Nutrition Survey, 2000/02.

**Table 5.5. Child Malnutrition Rates**

Areas	Underweight	Stunted	Wasted
Punjab	35	32.5	12.1
Sindh	49.4	44.2	18.2
NWFP	36.6	43.4	10.8
Balochistan	35.1	39.0	13.9
Gilgit-Baltistan	21.0	38.0	2.2
Pakistan	41.5	31.0	11.0

*Source: National Nutrition Survey 2000/02.*

5.85 Overall, health outcomes are poorer in GB than the rest of the country, particularly for maternal and child health, and they fall well short of nationally endorsed MDGs. Given the difficult context of GB, some remarkable progress has been made in some of the main valleys of Gilgit and Skardu. The challenge will lie in sustaining progress to date and extending access to the unreached.

## Key Challenges

5.86 The main features of the health outcomes described above stem directly from the dispersion of the population, the great distances in terms of time and effort needed between the client and the provider, and the importance of the health worker's gender in maternal and child health, for example. Similarly, the stewardship of the health sector complicates accountability, and there are major concerns about the way in which scarce public health spending is prioritized and implemented. Improving health care access and utilization will depend on addressing these challenges, and as a critical pillar of the health system, CSOs have an important role to play.

### *Physical Access and Health Provision*

5.87 Ensuring adequate access to health care services in enclave villages and communities tucked away in very mountainous terrain (or completely cutoff by landslides) is extraordinarily difficult. The most sparsely populated areas are also extremely difficult to reach, making it hard for patients to seek care in fixed health posts, or for mobile units to reach the infirm. Low density raises unit costs and contributes to severe staff shortages. The cost per child of vaccinating against polio, for example, is much higher in very remote areas than in the larger towns of Gilgit and Skardu, but it is manageable. These unit costs rise higher still and quickly become prohibitive, however, as the level of sophistication of the needed service increases. Hence, it is simply impossible to establish surgical facilities outside of urban areas, and clients will need to either move to these urban areas, or be connected through essential infrastructure, but with some travel expense. In many cases, such as maternal health, choices will need to be made in advance, guided by antenatal care identifying higher risk cases, to either move to where institutionalized deliveries are available some weeks in advance of the expected due date, or risk disaster from mostly preventable causes in the home village. The decision is hard for several cultural and economic reasons, but must be confronted if the high level of maternal mortality in rural areas is to be addressed.

5.88 Staffing is a key challenge in remote areas, both in GB and other parts of the world. Outside of population centers, the scope for medical specialization and provision of more sophisticated services falls dramatically, and working in rural areas is often viewed as undesirable from a career perspective. Hence, special efforts are needed to ensure adequate capacity to deliver the desired level of health services.

5.89 Huge distances between where many people live and where the health care facilities are located make physical access a formidable challenge for patients. This is despite the higher number of beds as a

proportion of the population in GB compared with the national average (9.0 compared with 6.5 beds per 10,000 population), and the proportionately larger number of first-level care facilities (5 per 10,000 population compared to an average of 1 in the rest of the country) (Table 5.6). Even with the ongoing addition of 700 beds and the establishment of 226 First Level Care Facilities (FLCFs - which will further improve the existing facility to population ratio), physical distances remain an obstacle to access. The first contact facilities, such as BHUs and dispensaries have a mean catchment area of 224 km<sup>2</sup>. Secondary and tertiary care facilities have much larger mean catchment areas, around 3,152 km<sup>2</sup> and 8,055 km<sup>2</sup> respectively, translating into distances for some of 30 to 50 km to reach the nearest service provider, with the challenges of distance compounded by difficult mountain terrain and uncertainty.

**Table 5.6. Access to Health Facilities**

	Gilgit	Skardu	Diamer	Ghizer	Ghance	Astore	NA	Pakistan
<i>Health Infrastructure by Physical Catchment Area</i>								
<b>Total area (km<sup>2</sup>)</b>	18,270	18,630	6,912	11,970	8,194	5,168	72,496	
<b>District hospitals</b>								42% of hospitals
Number of facilities	3	2	1	1	1	1	9	
Mean Catchment Area (km <sup>2</sup> )	6,090	9,315	6,912	11,970	8,194	5,168	8,055	< 20km
<b>Secondary Care Centers (RHC/ civil hospitals)</b>								65% of RHC
Number of facilities	6	5	2	4	4	2	23	
Mean Catchment Area (km <sup>2</sup> )	3,045	3,726	3,456	2,993	2,049	2,584	3,152	< 20 km
<b>PHC Centers (BHU/s/ dispensaries)</b>								81% of BHUs
Number of facilities	390	70	46	42	60	20	628	
Mean Catchment Area (km <sup>2</sup> )	47	266	150	285	137	258	115	<20 km
<i>Health Infrastructure per 10,000 Population</i>								
<b>Beds</b>	12.0	14.0	6.0	6.0	2.0	12.0	9.0	6.5
<b>FLCF</b>	3.4	7.5	3.5	1.2	7.3	3.3	4.8	1.0

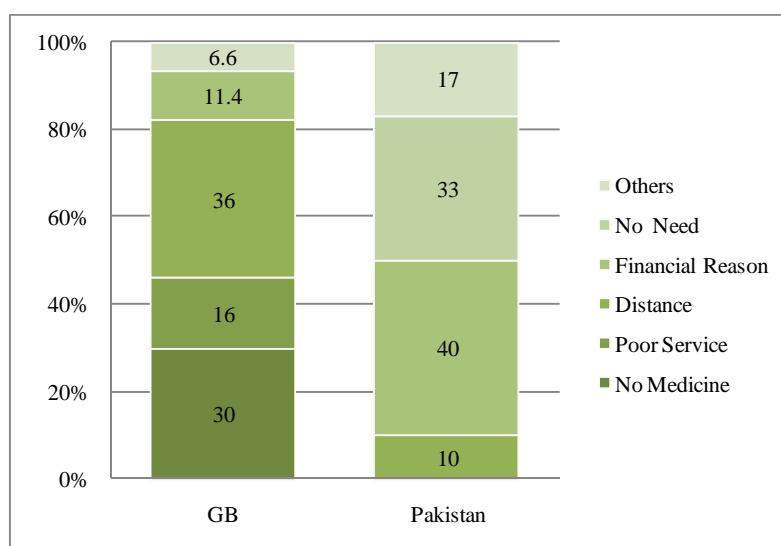
Source: Program Data from DOH, DOPW, AKHSP, FPAP, Marafie Foundation; PIHS 98/99.

5.90 The overall situation in GB is in sharp contrast to much of the rest of Pakistan, where the majority of the Primary Health Care (PHC) centers and secondary services, as well as close to half of tertiary service providers, are within a 20 km radius. Inside GB, the benefits of agglomeration are again evident, and Gilgit has the largest population density and the largest concentration of public and private sector hospitals. Other districts, such as Skardu, Astore and Ghizer, are significantly worse off in terms of physical access to health infrastructure. Better health facility mapping is required at the district level (which would suggest distributing more PHC facilities in some of the lagging districts), as well as alternative ways of delivering health care, including upgrading some of the primary and secondary centers in each district, eliminating unnecessary primary health care outlets such as poorly functioning dispensaries, and increasing investment in outreach services.

5.91 In addition to impinging on access, large distances are also a major factor inhibiting good health care seeking behaviors on the demand side. A higher proportion of the sick (9 percent) in GB do not seek care compared to Pakistan's average (7 percent). The most frequently cited reason for infrequent or non-use of health care facilities is distance (36 percent), followed by health facility factors including lack of medication (30 percent) and poor service (16 percent) (Figure 5.11). Most patients utilize government services provided free of charge, so financial constraints preventing use are not emphasized as much as in the rest of Pakistan, where the population relies mainly on private health care providers. It is worth noting, however, that transportation costs raised by distance, and 'stock-outs' of medicines in the public

provider when they would be available in a nearby private pharmacy, may be capturing some of the financial burden of seeking health care.

**Figure 5.11. Reasons Why Sick People Did Not Seek Care**



Source: PSLM 2004/5. These reasons account for more than 80 percent of all responses.

### ***Limited Availability of Skilled Staff***

5.92 Divisions between GB and the rest of Pakistan, between urban centers and remote areas, and between health workers and patients along gender lines also adversely impact the capacity to deliver services, as well as the demand for health care. As a result, there is a shortage of skilled health staff, both doctors and all ranks of female health staff, and many facilities are underutilized.

5.93 There is an average of two doctors per 10,000 of population in GB, including both the private and public health sectors, which is insufficient. The government sector has appointed only 123 medical officers across 352 facilities. The number actually serving in far-flung facilities is substantially lower than these numbers imply because of staff preference to work in urban localities (Table 5.7). Recruiting and retaining qualified staff is difficult, as many prefer to work in the rest of Pakistan, especially the major urban centers. An even more acute problem is female staff shortages throughout GB, particularly in the government sector. Supported by a female health worker training initiative (Box 5.9), the AKHSP has the highest concentration of female staff, especially nurses and paramedics, and is reputed for good quality nursing, midwifery, and maternal and child health care. Still, the AKHSP is also facing staff shortages. Female doctors comprise only a fifth of the medical officer pool in the government sector, and reportedly most have taken a leave of absence to work in other parts of Pakistan.<sup>118</sup> Although lady health visitors (LHVs) are in greater supply than lady doctors, their existing numbers cover less than a third of government health facilities. The current LHV to doctor ratio is only 1:2 as opposed to 4:1, which is internationally recommended for good quality maternal and child health, as well as inpatient hospital care. Data on nurses is not readily available, but reportedly there are extremely few nurses except in the AKHSP facilities. There are major differences at the district level, and a lack of educated females has stalled training and recruitment in Diamer, Skardu and Astore (Figure 5.12). Incentivized education, linking school enrollment with future employment as Lady Health Workers (LHWs), can be used in more

<sup>118</sup> Department of Health, GB 2008.



difficult areas to expand coverage. The 276 government facilities presently under construction in GB are likely to precipitate a human resource crisis.

**Table 5.7. Availability of Human Resources**

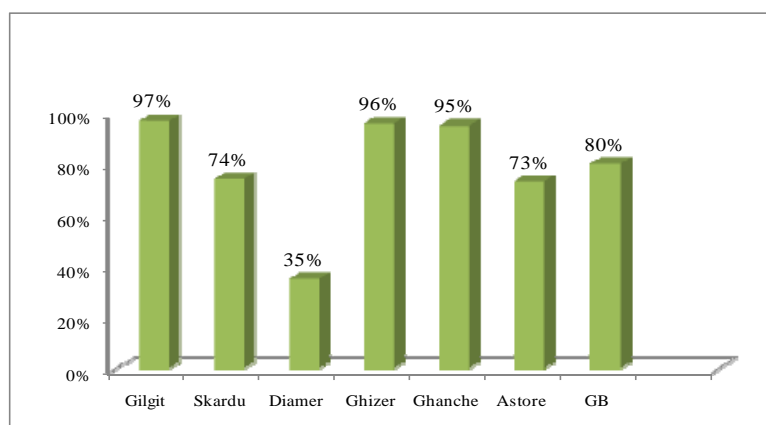
Human resources per 10,000 population	GB	Pakistan
Doctor: population ratio	2	9
LHV: population ratio	1	2
LHW: population ratio	11	7
Trained dai :population ratio	3	-

*Source: Program Data DOH, DOPW, AKHSP, FPAP, MF.*

**Box 5.9. Female Human Resource Development in the Health Sector**

The AKHSP has taken substantial initiative over the years to support female human resource development in the health sector, sending local women to other parts of country for training every year. A critical mass of trained LHVs in GB has been developed, and they are deployed in remote health facilities across the region, where they not only serve as health care providers but also act as role models for female youth, encouraging more women to seek training. By 2002, AKHSP trained more than 200 local females as LHVs and nurses, who are serving in both the public and the private sectors, in GB and across the country. In addition to nursing staff, AKHSP also enabled the training of specialists in public health and clinical care, who are providing much needed health care.

**Figure 5.12. Population Covered by LHWs**



*Source: Program Data 2007.*

5.94 Progress in this area will depend in part on systematically compiling and recognizing the evidence that female empowerment, elevated educational status, and openness contribute to improved MCH and better outcomes. Indeed, major achievements are evident in those districts where cultural divisions have been mitigated or overcome, with the infant mortality rate, for example, falling to about 33 in the Gilgit and Hunza valleys in 2003.<sup>119</sup>

5.95 It is worth noting that the Army Medical Corps (AMC) has also traditionally been an important stakeholder in GB, helping to bridge divisions. The AMC is an important source of health care wherever the army is present, and it often has better access to remote areas. It plays a significant role in the Health

<sup>119</sup> FSA 2003.

Directorate by contributing to staff training, managing drug procurement, and providing staff for senior managerial posts.<sup>120</sup>

5.96 These challenges require the development of alternative approaches to delivering health care, such as investing in outreach and mobile clinics instead of constructing additional static facilities. Existing PHC and secondary care outlets have to deliver a broader range of services and trained staff need to be placed in villages. Developments in other sectors, such as roads, communications, and water and sanitation will help improve health outcomes. There is a critical need for augmenting human resources in GB. Targeted incentives may be an essential part of any progress in this regard.

### ***Public Administration of the Health Sector***

5.97 The public sector is the main health care provider, accounting for about 83 percent of the available beds and 77 percent of the first level care facilities (the rest are provided by CSOs), but user satisfaction with the public sector is low, and accountability mechanisms are weak (Table 5.8). Surveys suggest that almost half of public sector users (46 percent) are dissatisfied with the services they receive, mainly due to a lack of staff (25 percent), and a shortage of medication (23 percent). Evidence gathered from the AKHSP sites shows that where both private and public sector facilities are available, the majority of the population (61 percent) uses the private sector and their choice of facility is determined by quality of care (46 percent of responses).<sup>121</sup> Raising quality and client satisfaction will depend on improving accountability.

**Table 5.8. Level of Dissatisfaction with Public Sector and Underlying Reasons**

	<b>GB</b>	<b>Pakistan</b>
Percentage dissatisfied with service	46	40
Reason for dissatisfaction		
No doctor	25	12
No trained staff	10	20
No medicine available	23	23
Long wait	21	13
Staff not helpful	9	14
Treatment unsuccessful	9	11

*Source: PSLM 2004/05.*

5.98 The various units in the Department of Health (DoH) are accountable to the Secretary of Health, on up to the Chief Secretary and the Minister of KAGB. As noted above, this means that the ‘long route’ of accountability is likely the norm, where clients have limited means to hold providers directly accountable. Other issues are also of concern. There is a lack of managerial staff for adequate oversight and administration, which is aggravated by staff vacancies: only four of the six DoH posts are currently staffed. There is scope to devolve financial and staff management (mindful that ensuring adequate capacity is a key ingredient), granting the Director of Health more control over staff decisions, and giving the district levels more authority to allocate budgets and implement spending.

<sup>120</sup> EU (2002). Situation Analysis and Long Term Strategic Plan in Health and Population Sectors, Northern Areas of Pakistan, European Commission SAPP-II Coordination Office and Department of Health, Northern Areas, November 2002.

<sup>121</sup> Sheikh & Hatcher (2004/05): Health Seeking Behaviors and Health Service Utilization in Northern Areas Pakistan 2004/05, Department of Community Health Sciences, Aga Khan University.

5.99 The computerized National Health Management Information System (HMIS) was installed in GB in 1994, aimed at improving planning and administration. The tool is grossly under-utilized, however, and a general upgrade in both software, staff training on data entry, recording, and usage is urgently needed, in order to strengthen the planning function and provide strategic direction for the whole health sector. At present the DoH has limited its efforts to the routine administration of government health services and has made little attempt towards using the HMIS to set evidence-based priorities and guide the public health delivery system, the investments of donors, or the spending of the private sector towards identified health needs.

5.100 Although donor assisted efforts in the late 1990s led to the development of a long-term strategic health sector plan (EU 2002), as well as a draft health policy (DoH GB 2003), the DoH has made little attempt to operationalize it or undertake review and planning exercises after the Northern Health Project. Frequent staff transfers disrupt continuity in the planning process and precipitate the loss of institutional memory created by donor-supported projects. Planning needs to be institutionalized and should involve periodic development of short- and medium-term health sector plans which are administratively linked to the disbursement of public sector funds and politically ratified by the GBLA.

5.101 This is also reflected in weak coordination with CSOs who are active in GB. Public-private coordination would minimize service overlaps in the placement of health facilities, as well as the duplication of training investment plans (for example, the DoH, the AKHSP and the MF are planning to invest in LHV training institutes in the same localities). Public-private partnerships have the potential to greatly improve service delivery, including the People's (formerly the President's) Primary Health Care Initiative (PPHI), which began in GB in January 2007, and involves contracting out BHU management to CSOs to achieve fully operational PHC services. Within only two years of starting operations, the initiative has resulted in a meaningful increase in the BHU service outputs in curative and maternal health services. Several other PPPs aimed at controlling TB, enhancing population welfare services, and expanding immunization programs, are also showing positive results.

5.102 Overall, the stewardship role of the GoGB needs to be considerably strengthened, especially in planning, administration, and use of PPPs. This will depend importantly on revitalizing and using the HMIS.

### ***Financing Health Care***

5.103 Total health care expenditure per capita, including the government, donors, NGOs, and private out-of-pocket household spending, amounted to about Rs. 1,673, or US\$25 a year in 2004/05.<sup>122</sup> This is substantially above the national average of US\$14, but outcomes in GB are weaker. While this is largely due to the high unit cost in GB, there is also scope to improve financial management and budget allocations, in order to utilize existing health care funding more effectively.

5.104 The government undertakes 54 percent of all health care spending, with the rest accounted for by CSOs and patient out-of-pocket expenditures. Since the conclusion of several projects in the late 1990s, donor financing has been minimal, though a new project has been agreed with the Kredit Anstalt fuer Wiederaufbau, and small, specialized grants are also having an impact. In the absence of fiscal devolution and cost recovery, there is no separate channel of funds at the district level, and public sector

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<sup>122</sup> PSLM 2004/05, Public Accounts & NGO Program Data. Prices in 2008 PKR, exchange rate of 67 PKR to 1 USD.

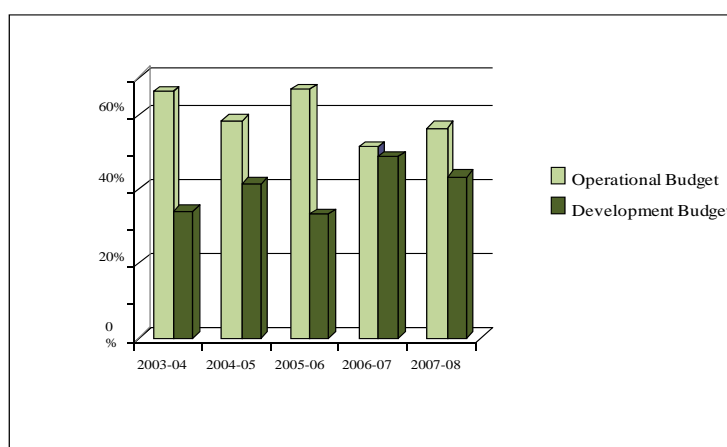
spending is financed entirely by the federal government. The GoGB implements about 71 percent of public health spending, while the federal government spends 29 percent directly on health related priorities in GB, mainly in support of national vertical programs including the Population Welfare Program, the Expanded Program for Immunization, the HIV Control Program, and the PPHI.

5.105 A relatively high proportion of GB's total budget is spent on health care, with the total allocation over the last 5 years hovering between 7-9 percent of the budget, compared with the national average of 3 percent. Two major issues stand out: the financial allocation process, and the split between recurrent and capital spending.

5.106 There are several problems with the financial allocation process that hamper the effectiveness of public spending. Late fund releases from KAGB result in a cycle of underutilization, which has been falsely interpreted as low health care need and weakens incentives for improved performance. Funds need to be rationalized by district based on considerations of health care needs and overall district development, while operational budget disbursements should be linked to health facility outputs. Substantial amounts are given to legislators to allocate at their discretion, which often leads to spending that neglects health, or is poorly coordinated within a broader strategy.

5.107 One of the biggest concerns regarding public spending on health care is the split between recurrent and capital expenditure, as well as the allocations within these categories. Operational spending has been far below the levels needed to sustain adequate quality of care, with too much spending on the capital side (Figure 5.13).

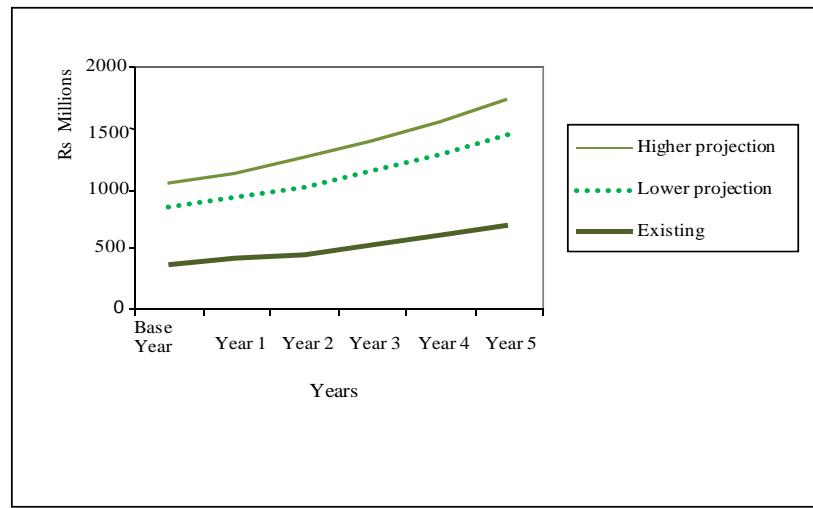
**Figure 5.13. Proportionate Allocation between Development and Operational Health Budget**



*Source: Public Accounts Data.*

5.108 The heavy emphasis on capital infrastructure has serious implications for operational costs and health facility utilization going forward. Operational spending needs are projected to increase threefold over the next five years due to the added costs of beds and facilities under construction, as well as inflation (Figure 5.14). These expenditure levels are unlikely to be met and will precipitate an operational expenditure crisis in the near future. As a result, some facilities will continue to be underused, like FLCFs, dispensaries, and FAPs. In addition, the quality of care will suffer as human resource needs go unmet.

**Figure 5.14. Recurrent Cost Projection Over 5 Years**



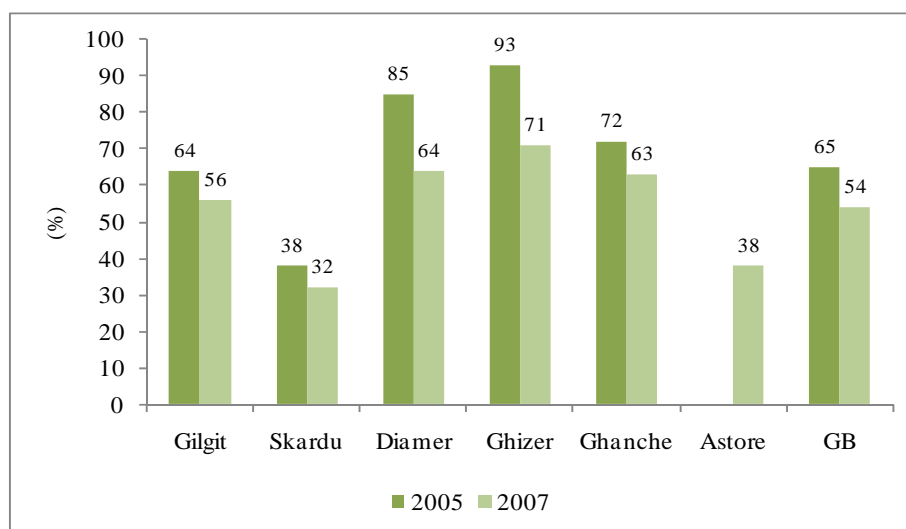
Source: Projections based on Public Accounts Data.

Note: Inflation assumed to be 10 percent for years 1-2, and 15 percent for years 3-5.

5.109 Within the operational budget, salaries account for the major expense (76 percent), leaving little for medicines and supplies (16 percent), and travel and supervision (2 percent). Hardly any funding is allocated to the repair and maintenance of facilities, or the purchase of equipment and the HMIS. As noted above, without user charges, there is no local generation and retention of fees for health care facilities. A reallocation of funds is needed from the development to the operational budget.

5.110 The inadequacy of operational spending and the lack of funds for the procurement of medicines are reflected in a shortage of medications and supplies, a persistent problem affecting health service delivery in GB. More than half of the facilities had stock-outs of one or more essential drugs in 2007, and supplies tend to run out by the middle of the month (Figure 5.15). As noted above, lack of medicines is a major reason for patients' dissatisfaction with public sector facilities and why patients opt for private health services in areas where they are available. Lesser priority items, such as MCH supplies (including contraceptives and iron tablets) often bear the brunt of budget constraints and are not supplied to health facilities with any consistency, contributing to the poor utilization of MCH and family planning services. Finally, long distances and delays in transporting medicines from the rest of Pakistan also contribute to persistent drug shortages.

**Figure 5.15. Stock-outs of One or More Essential Drugs**



Source: HMIS 2005-2007.

5.111 It is also worth noting that within the development budget, there is a heavy emphasis on physical infrastructure spending (85 percent), to the neglect of soft projects (15 percent). These investments have driven a major expansion in the existing hospital infrastructure at district and *tehsil* levels, as well as greater numbers of dispensaries and First Aid Posts. The majority of infrastructure investment has been in Gilgit (26 percent), followed by Diamer (23 percent). The addition of 700 beds increased available beds by 83 percent, and the further 226 facilities at the sub-BHU level raised the number of first level care facilities by 70 percent. The recurrent cost implications are large, and soft projects, like TB control, monitoring and evaluation through the HMIS, training and human resource development, have not attracted much funding.

5.112 Overall, significant gains in the effectiveness of health care spending appear feasible by (a) shifting funds from the development to the operational budget, increasing allocations for medicines, outreach travel, repair and maintenance, (b) moving funds from physical infrastructure investment to soft areas, (c) decentralizing decision making and budget execution to bring the process closer to the client, (d) attracting more donor engagement, and (e) improving coordination.

### ***CSOs – The Main Alternative to Public Health Care***

5.113 CSOs comprise an important pillar of the health care system in GB, including large organizations like the AKHSP, the Family Planning Association of Pakistan, the Marie Adelaide Leprosy Center, the Marafie Foundation, and the Al-Sehar Foundation. While spending as a share of the total is comparatively small, the engaged CSOs have had a major impact, especially in the catchment areas where their services are focused (Table 5.9). For example, AKHSP's activities are concentrated in the Gilgit and Ghizer districts and serve a catchment population of about 300,000 (Box 5.10). Through a system of small secondary tier facilities, a large primary health network, and a team of male community health workers and trained LHVs, the AKHSP provides valuable services. Although the AKHSP raises 50 percent of its revenues from user fees, patients prefer to use its services.<sup>123</sup> Impact is reflected in a

<sup>123</sup> Sheikh & Hatcher 2005/06.

number of outcome indicators in its catchment areas, particularly for maternal and child health care (Table 5.9). These indicators are substantially better than the rest of GB and Pakistan as a whole. The main reasons for success have been aggressive outreach services, intensive field-based supervision, high utilization of more easily available staff such as female paramedics, and large investments in community participation and behavioral change. Emerging challenges include staff attrition, financial constraints (increasing the reliance on user fees and limiting access for the poor), and concerns about coordination with public health care provision.

#### Box 5.10. CSO Engagement for Better Maternal and Child Health

In 1987, the AKHSP launched a comprehensive public health care program in order to help address the alarming results of a 1986 household baseline survey carried out in Punial valley (Ghizer district). For example, with only 14 percent of births attended by trained healthcare personnel, the survey estimated the IMR at 158 per 1000 live births and the MMR at more than 550 per 100,000 live births. The immunization rate for children was about 26 percent. The AKHSP's program had three tiers, including (1) community-based workers, (2) a network of maternal and child health centers providing support to first tier and round the clock MCH services, and (3) a mobile supervisory team responsible for supporting and monitoring tiers 1 & 2 as well as coordinating with other stakeholders to facilitate outreach activities. In 1990, after only 3 years of the program's implementation, an evaluation was carried out by the Planning Commission of Pakistan and noted significant improvements in the health status of mothers and children. The IMR halved to less than 75, and more than 50 percent of children were being fully immunized. According to current data on Punial valley from the health monitoring information system of AKHSP, more than 80 percent of mothers receive antenatal care, about 85 percent of births are assisted by trained medical personnel during delivery, the maternal mortality rate has fallen below 100 per 100,000 live births, and the IMR is less than 30 per 1000 live births. Strengthening primary health care systems is essential to such successes.

**Table 5.9. AKHSP Performance on Key Health Indicators**

	AKHSP	GB	Pakistan
% of mothers receiving antenatal care (ANC)*	68	49	50
% deliveries conducted by trained staff	92	40	51
% of mothers with 2 dosages of TT	89	22	51
% of <1 years fully immunized	86	43	77
CPR	33	23	32
IMR	33	122	76.2
MMR	-	600	533-300

Source: AKHSP Health & Demographic Survey 2000; PSLM 2004/05; PDS 2005.

\* ANC coverage is taken as 3 health facility visits during pregnancy in AKHSP data as opposed to 1 visit during pregnancy for GB and Pakistan.

5.114 Other CSOs have focused on particular health issues. The Family Planning Association of Pakistan (Rahnuma) currently has a 20 bed Family Health Hospital in Gilgit, as well as 9 family planning outlets. One of its foremost contributions has been providing quality family planning services, resulting in an increase in the CPR to 35 percent in its catchment area, compared to an average of 24 percent for the rest of GB. Philanthropic organizations have a significant presence in Baltistan and are active providers of curative health care. The Marafie Foundation and Al-Sehr are funded by expatriates and receive volunteer assistance from doctors in the rest of Pakistan. These organizations also fund patient referrals, dispensaries, and scholarships to train doctors and LHVs. Unfortunately, few doctors returned to serve in GB and most of the dispensaries constructed are not fully functional for lack of government funds.

5.115 A number of active community based organizations (CBOs) are working in GB. These CBOs, mostly developed by the AKDN as informal village organizations, have evolved into registered agencies and are independently managing local community development projects. Most are active in rural

development, with fewer in the health sector. Amongst those active in health, the KADO, the NDO and the BHEF are involved in health insurance pilot programs and solid waste management projects. They are also financing and managing MCH centers, and supporting a tele-health project for referral consultations with specialists in other parts of Pakistan. These are important resources and can facilitate the community mobilization and behavioral change necessary to improve health outcomes, manage health care schemes in difficult to reach areas, and pilot cross-sectoral projects involving water and sanitation, indoor air pollution, and income enhancement.

5.116 In sum, CSOs have played an important role not only in providing health care services, but also in bringing resources that were leveraged to greater effect. Improving coordination, building on CSO strengths in MCH, drawing on their training and human resource development capacities, making greater use of public-private partnerships, and engaging the community more directly, are all key areas where potential gains could be realized going forward.

### **Looking Ahead: Policy Options**

5.117 Improving the performance of the health care system and achieving better outcomes will depend on the implementation of a range of policy initiatives, the mobilization of more resources, and the concerted efforts of all stakeholders. Besides improving the management and effectiveness of existing health architecture, there is also a need for exploring innovative models to promote access and demand for health services, such as linking existing safety nets (like the BISP) to health access for vulnerable groups, developing health insurance products, and exploring tele-health for secondary care. In most cases, the health reforms will take time, as well as requiring progress in other areas, including building connective road infrastructure, expanding access to safe water, or increasing the use of smokeless stoves. What follows is a very selective list of three actions worth pursuing now, and three actions that should be targeted over the medium-term.

#### ***Addressing Urgent Human Resource Needs***

5.118 Limited human resources are a major constraint on performance, undermining the effective utilization of facilities, as well as impinging on the quality of care.

- **For immediate action:** As a matter of urgency, fill key vacant positions for doctors, nurses and LHVs by offering more attractive compensation and ensuring strong political and community support. This should be accompanied by performance-based incentives to reduce absenteeism and low productivity.
- **For pursuit over the medium-term:** Develop a human resource strategy that emphasizes training and incentives to improve retention. This would involve training local women to expand the pool of female health staff, as well as improving the clinical skills of existing staff. Such strategies would benefit from close collaboration with agencies such as the AKHSP (Gilgit & Ghizer), the MF (Baltistan), and the Sehat Foundation (Diamer), as well as a revitalization of the Public Health Institutes in Gilgit and Skardu.

#### ***Improving the Effectiveness of Health Care Spending***

5.119 Stronger governance requires better financial planning, greater managerial autonomy, and enhanced capacity.

- **For immediate action:** Review the public sector development budget, and where possible, reallocate funds from physical works to the operational budget, in order to ensure adequate



funding for hiring additional health workers, procuring medicine, maintaining existing facilities, and bolstering the monitoring and evaluation systems through the HMIS (which will help improve policy and planning going forward).

- **For pursuit over the medium-term:** Decentralize administrative and financial authority to the DoH and on to the district levels, in order to improve accountability, strengthen the management of staff postings, enhance control over the development budget, and shift gradually towards the preparation of district based budgets.

### *Augmenting Coordination of Health Care Stakeholders*

5.120 Getting the most out of the numerous public and CSO entities active in health care and fostering good health seeking behaviors requires a high level of coordination.

- **For immediate action:** Build on the experiences of existing small-scale PPPs (including those in the treatment of tuberculosis, the Expanded Program for Immunization, and the better use of BHUs), and expand the number and scale of PPPs. Greater coordination and communication, entailing reducing service overlaps, sharing essential information and research, and strategizing jointly, will help improve health outcomes.
- **For pursuit over the medium-term:** Consider contracting out several areas of service delivery, like (i) the provision of MCH care, NCD programs, staff trainings, and other items where the public sector faces particular challenges; ii) the delivery of services where NGOs have better outreach than the government; and iii) the creation of demand in the community. The government's role in the PPPs would be financing and oversight, while the private sector entity would provide the contracted service for the specified period. Such arrangements may also help mobilize more funding from philanthropic organizations.

## 5.5. Expanding Access to Water Supply & Sanitation

5.121 Safe drinking water and adequate sanitation services are an integral part of advancing development, reducing shocks associated with environmental health and ultimately improving human productivity. While the returns to investment in water supply & sanitation (WSS) are generally estimated to be quite high, the costs and benefits of WSS provision in GB play out somewhat differently, due to the special geography of the region, which has both positive and negative implications for WSS delivery.

5.122 Given that the source of most water in GB is glacial melt, issues of access to water are usually not acute, although availability falls dramatically during winter months, when many, especially women, will have to walk great distances to fetch water. Addressing the seasonal challenges of water supply with improved water sources is made difficult by the sparse population, since high fixed costs are then spread across fewer connections. Conversely, the absence of population concentrations and the temperate climatic conditions, including very cold winters, reduce the risks of environmental health hazards like contamination of drinking water or disease outbreaks. Still, urbanization is proceeding apace, and ensuring that improvements in WSS keep up will be challenging.

5.123 The institutional arrangements for the provision of WSS are fragmented, and there is substantial scope to improve the administration of the sector. Public spending tends to favor building new schemes, while maintenance is neglected, leading to unreliable service and premature erosion of public investments. Strong models of community participation in WSS provision exist, especially in urban centers like Karimabad. More needs to be done to improve coordination between the government and CSOs.

5.124 Several key initiatives would help GB respond to these challenges. First, the general dearth of information undermines the ability of stakeholders to plan, coordinate and monitor WSS provision – more data needs to be collected as a matter of urgency. Second, meaningful improvements in the quality and reliability of existing services are feasible if spending priorities could be shifted towards operations and maintenance, and if cost recovery efforts could be strengthened. Finally, there is scope for greater coordination between the government and other actors to share financial and technical resources.

### Development Performance to Date

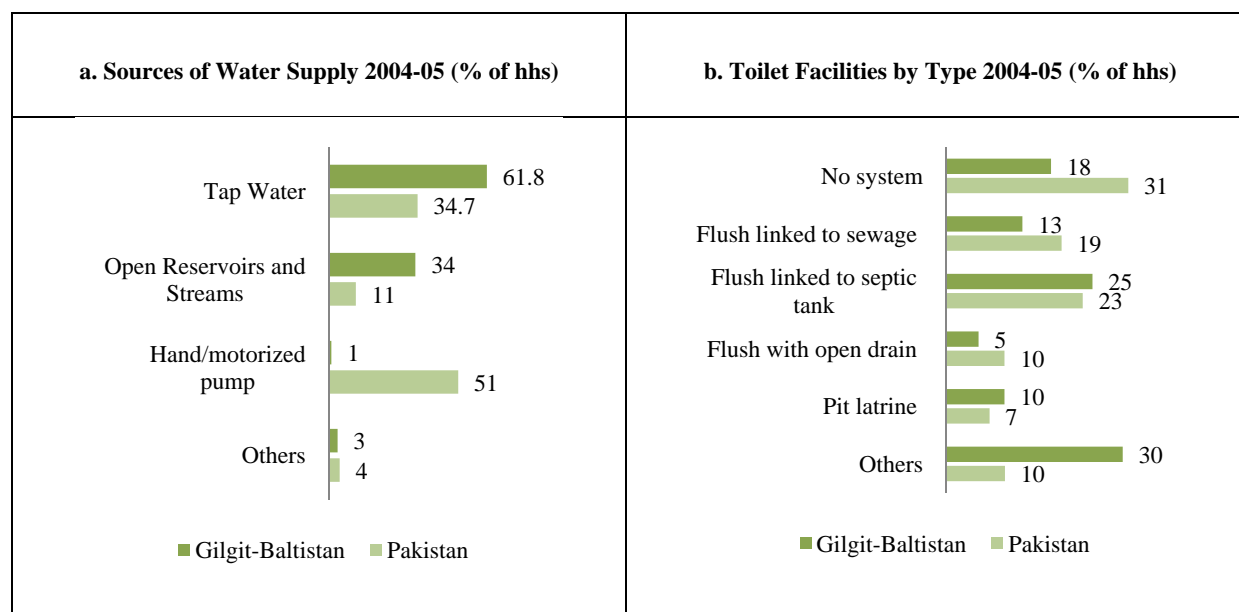
5.125 GB has achieved major improvements in the state of WSS in recent decades. An estimated 62 percent of households had access to tap water inside or within a reasonable distance from their homes in 2004-05—the highest rate in Pakistan (Figure 5.16a). The picture changes, however, when considering all improved water sources. A sizable portion of households in the rest of Pakistan use hand and motorized pumps for access, which are absent in GB.<sup>124</sup> Hence, about 38 percent of households in GB were without access to improved drinking water in 2004-05 (meaning use of surface water in lakes and streams), compared to 15 percent in Pakistan as a whole. Context matters, however, and the safety of water from lakes and streams needs to be ascertained in more detail. Arguably, in a very low density context, the water in the streams will be safe. It is also worth noting that the coverage of public water supply schemes varies significantly across districts within GB.<sup>125</sup>

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<sup>124</sup> The MDG indicator on access to drinking water includes both tap and motorized/hand pump categories.

<sup>125</sup> See the background paper on water supply & sanitation. Although the government statistics lacked accuracy due to double counting of coverage, they do present an indicative picture.

**Figure 5.16. Source of Water Supply and Toilet Facilities by Type (2004-05)**



Source: PSLM 2004-05.

5.126 On the sanitation side, the picture is mixed. Only 18 percent of households in GB were without any toilet facility, compared to 31 percent in the rest of Pakistan (Figure 5.16b), so open defecation and human waste seem to be less of a problem in GB than the rest of Pakistan.<sup>126</sup> GB lags behind the rest of Pakistan in the prevalence of modern toilet facilities with adequate sewage—either connected to a public sewage system or a septic tank. About 37 percent households in GB had adequate toilet facilities compared to 42 percent in the country as a whole. Like access to water supply, access to modern sanitation facilities in GB also varied across districts and across the rural-urban divide. Access to modern flush systems in urban locations in GB was 20 percent higher than in rural areas, for example.

5.127 The snapshot of WSS presented above is based on the 2004/05 PSLM. More data is needed, however, in order to enable deeper analysis and policy planning. Detailed and up-to-date information would help policy makers and other stakeholders target initiatives, as well as monitor progress towards the related MDGs over time.

## Key Challenges

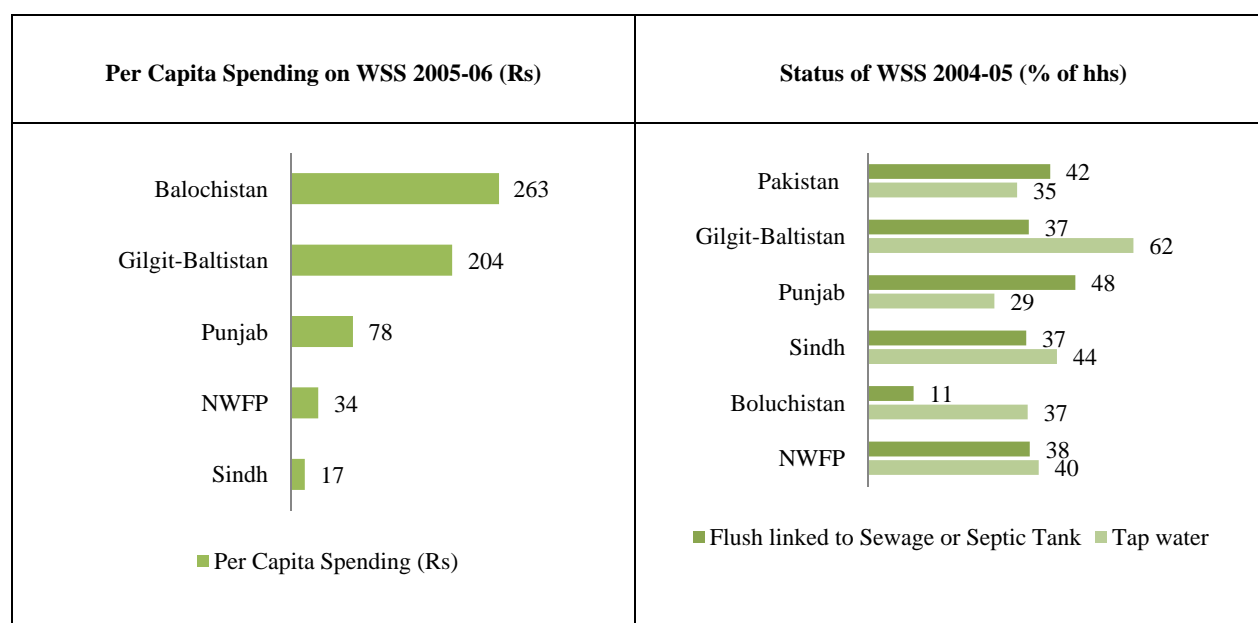
### *The Benefits and Drawbacks of GB's Geography for WSS*

5.128 Population density plays out differently in WSS provision than in some of the other sectors. In one way, the effect is the same - sparse settlement translates into higher capital costs spread over fewer households, since a water supply line or a secondary and tertiary sewage collection line serves a smaller number of beneficiaries for a given amount of infrastructure. Unit costs are substantially higher, as

<sup>126</sup> Defecation in open places was not as high in GB, but traditional latrines, often with poor hygienic conditions, were still widely prevalent in the region and human waste is used as manure.

indicated by the elevated per capita spending on WSS in Balochistan and GB—two regions with the lowest population density—compared with the rest of the country (Figure 5.17).<sup>127</sup>

**Figure 5.17. Per Capita Spending and Status of Water Supply & Sanitation (2005-06)**



Source: Baluchistan Economic Report; GBER Background Paper; PSLM 2004-05.

5.129 Yet lower density also means lower risk of water contamination and reduced risk of water borne disease outbreaks like cholera, for example. In very remote, sparsely populated areas, clean water from streams fed by glaciers is easily accessible, and the environmental burden of sanitation is manageable. Major problems arise when density grows such that limited sanitation impacts access to safe water, yet the number of people served and the financial wherewithal is insufficient to induce the large investments needed. Hence, investments are proceeding in major towns, like Gilgit, but smaller communities which face mounting risks from lack of sanitation and unsafe water, are often unable to gather the resources needed to address the issue. Overall, urbanites enjoy higher access rates to tap water and toilet facilities, by 80 and 20 percent respectively, than rural inhabitants.

5.130 As noted above, despite GB's generally favorable water availability, there is a significant seasonal component when melt waters slow or cease in winter months. As a result, distance again becomes a major issue, and families in remote parts of GB often have to walk long distances to fetch water for drinking and household purposes. In most cases, gender divisions mean that females are assigned this arduous task, multiplying their workload as well as compounding the risk of physical injuries due to long and loaded commutes on treacherous mountain paths.

5.131 Access to WSS is also affected by other forms of issues emanating from socioeconomic status of families. There are many cases in GB where families living in old housing clusters—of whom an overwhelming majority are poor—face limited access to sanitation facilities. In these old clusters, co-location of animal sheds and unhygienic defecation practices are a common feature. Such specific cases require targeted interventions.

<sup>127</sup> Higher spending can also be due to higher priority attached to the sector but anecdotal evidence suggests that cost of service provision is a major factor in determining the differences.

### ***Improving Public Administration of WSS***

5.132 Currently, government efforts in WSS are channeled through four institutional arrangements: a) the Local Government and Rural Development (LG&RD) entities managing WSS in rural areas; b) the Northern Areas Public Works Department (NAPWD) focusing on urban areas; c) the Local Municipal Committees addressing solid waste management in the municipalities of GB, and d) the vertical programs like the Prime Minister's Scheme for Clean Drinking Water. The efforts of these public institutions are complemented by a host of CSOs. The role of the Water and Sanitation Extension Program (WASEP) in the provision of water supply, AKCSP's WSS solutions in old settlements of historic and cultural significance, and KADO's solid waste disposal efforts, are noteworthy examples of CSOs' important role in the WSS domain. While these diverse public and private institutions have been instrumental to GB's progress on WSS, key concerns remain regarding the effectiveness of existing public investments as well as with respect to expanding the outreach of services to hitherto unreached populations. Key policy issues include strengthening planning and coordination, improving the reliability of access, and raising quality.

5.133 *Planning and coordination.* An overarching framework and institutional structure for coordinating planning and policy formulation needs to be established. This is essential to avoiding some of the current duplication of efforts and ineffective use of public resources. Generating WSS indicators and strengthening monitoring and evaluation will be important to guiding future efforts to achieve the MDG goals in the WSS domain.

5.134 *Reliability.* Another concern is the need to improve seasonal reliability and address the shortages of drinking water that can occur in winter, even in urban centers like Gilgit. Similarly, public sanitation and solid waste management infrastructure needs to be expanded, especially in the growing urban centers like Gilgit, Skardu, and Hunza. While financial resources pose a major constraint, improving the accountability of public providers and exploring PPP models to pool resources from local and external CSOs would help.

5.135 *Quality.* Quality assurance in the public sector water supply schemes, by and large, remains limited to one time testing of water sources at the time of project identification. Since 2008, two laboratories have been established in Gilgit and Skardu with the help of UNICEF/IUCN, in order to test drinking water for bacterial contaminants. The tests conducted by these laboratories in four districts have shown that around 58 percent of all existing water sources have undesirable bacterial counts. Expanding the role of these laboratories in testing and quality assurance hinges on more staff and resources, which are currently in short supply.

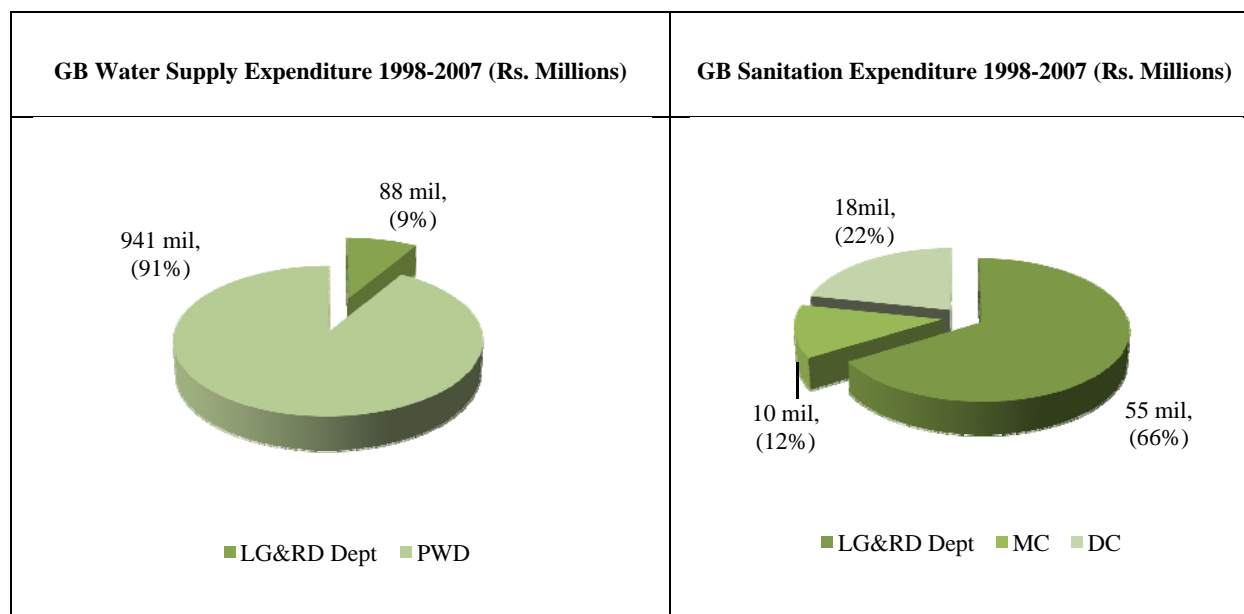
### ***Financing WSS***

5.136 The impact of elevated unit costs of WSS provision in GB cannot be overemphasized. As noted in Figure 5.17 above, GB was second only to Balochistan in terms of per capita investment in WSS, with both far outstripping expenditures per capita in other parts of Pakistan. An overwhelmingly large part of WSS allocations in GB (approximately 91 percent) went to water supply projects in 2005-06, which partly explains relatively better performance in providing drinking water compared to sanitation services. This also underscores the need for attaching due priority to sanitation services.<sup>128</sup> Figure 5.18 shows the breakdown of public capital expenditure on WSS services for the period 1998-2007.

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<sup>128</sup> Anecdotal evidence suggests that a large part of sanitation projects in rural areas include rain/flood drainage structures which do not really address the emerging sanitation challenges.

**Figure 5.18. Water Supply & Sanitation Expenditures (1998-2007)**



Source: GoGB.

5.137 Limited fiscal resources constrain investment in WSS, and the need for financing is huge. For example, it is estimated that the construction of a basic drainage system in Gilgit, would require a capital investment of Rs. 1.5 billion, but this is equivalent to approximately a third of the total GB annual budget. Another rough estimate suggests that an annual investment of Rs. 500 million will be needed over a period of ten years to provide safe drinking water and basic sanitation facilities to all households in GB.<sup>129</sup> Without these investments, contamination of rivers and water channels due to open drains and unhygienic waste dumping practices is increasing, even in urban centers like Gilgit. In rural areas, funding constraints are similarly difficult, where each union council representative receives a meager Rs. 80,000 (approximately \$ 1,000) to undertake WSS projects. This leads to atomized projects that are either non-viable or are not prioritized by the communities in the first place. Focusing on projects based on need and potential returns, emphasizing cost recovery, and partnering with CSOs to pool resources, will be crucial to offset the gaps in public financing of WSS projects.

### ***Strong CSO Base: Opportunities for Synergies in WSS***

5.138 There are some good examples where local communities have stepped in and leveraged their social capital to address some of the aforementioned challenges, particularly the financing and reliability aspects of WSS. For example, Al-Sabah Welfare Trust in Sonikot Gilgit has combined community contributions with external finances to build a lift water project which is operated and maintained exclusively by the community and financed through the revenues generated from water users. Similarly, KADO in Hunza is engaged in the collection and disposal of solid waste in urban centers which is partly financed by the waste generators like shops and hotel operators.

5.139 Larger CSOs like WASEP and AKCSP complement government efforts on a much wider scale. WASEP has partnered with local communities to provide safe drinking water to about 10-15 percent of

<sup>129</sup> See the background paper on Water Supply & Sanitation.

the total population in GB (Box 5.11). A salient feature of WASEP's model is extensive involvement of communities in the identification and management of water supply projects. It also elicits contributions from the beneficiaries in the range of 23-32 percent of project costs.

### Box 5.11. Potable Water: The Story of Lalik Bibi

Lalik Bibi, a mother of four, recalls vividly the sharp pain she once felt when she was at the edge of a canal as she bent to lift her pail of water. Like many others in her village *Barkhai* (125 km away from Gilgit), she was suffering from the all too frequent outbreaks of intestinal infection due to poor quality of water in her village. Her daughter had accompanied her to walk the arduous mile away from home to collect water for her family.

Her life changed when the Aga Khan Planning and Building Service, Pakistan (AKPBS-P), carried its Water and Sanitation Extension Program (WASEP) into her village. This program not only brought potable water to her door step, but also taught her the fundamentals of sanitation and containing the spread of disease in simple ways such as washing hands with soap and using latrines. Lalik Bibi's village is one of the 146 villages where WASEP has provided potable water supply schemes covering a total population of over 116,528 people in GB.



A recent impact assessment conducted in Lalik Bibi's village found that the incidence of diarrhea had fallen 3-fold. Other social benefits of WASEP's water supply schemes include reduced workload on women. Like many other women, Lalik Bibi used this time to take part in income generating activities such as growing vegetables or knitting sweaters. For school going girls, this meant more time for studies.

Today the community Barkhai village collects its own funds to operate and maintain the WSS infrastructure. The maintenance funds have enabled the community to employ a plumber to ensure the infrastructure is adequately maintained. The WASEP model has received international recognition, receiving the Dubai International Award for Best Practices (DIABP) in 2008. The AKPBS-P also received the ALCAN Prize for Sustainability in recognition of its innovative work in improving living conditions as well as addressing the social, economic, and environmental interests of some of the most disadvantaged communities of Pakistan.

5.140 AKCSP also provides integrated water and sanitation solutions in selected old settlements of historic importance, with significant impacts on other sectors, like the prospects for tourism. GB can build on the strength of its CSO tradition and also replicate lessons from other parts of the country to address the issues of WSS, particularly in urban localities (Box 5.12).

### **Box 5.12.Component Sharing in Sanitation: The Lodhran Pilot Project in Southern Punjab**

The Lodhran Pilot Project in Southern Punjab is based on the well-documented Orangi Pilot Project in Karachi, and provides an approach that could be replicated in GB. It seeks to develop partnerships between Tehsil or Town Municipal Organizations, CSOs, and communities for the provision of sanitation services. The communities contribute labor and material for their shares of the sewerage system, and in turn benefit from the integrated sewerage system as a whole. The framework provides opportunities for communities, elected representatives, government employees and civil society organizations to participate.

Under the Lodhran Pilot Project approach, the community itself manages the “external development” component which reduces the overhead costs associated with hiring contractors. Community involvement also improves the quality of construction work, as well as inducing proper operation and maintenance after completion. The transparency of the whole process is ensured by the constitution of various sub-committees at the village level under a village level sanitation committee. These sub-committees keep an eye on purchases, construction quality and accounts. The approach is free of any bureaucratic hurdles and can respond rapidly to the basic sanitation needs of the community without delay. The costs of hiring a large number of social organizers are avoided by involving the union council members and local level government functionaries in the social mobilization process. The Lodhran Pilot Project offers a policy framework which institutionalizes the role of communities for execution and fiscal responsibility, and it is hoped that international donors will help scale-up the intervention.

*Source: World Bank-Balochistan Economic Report.*

### **Looking Ahead: Policy Options**

5.141 Further progress in WSS will hinge on expanding access and improving reliability. In the challenging context of GB, this will only be possible through better administration, more effective spending, and greater coordination with CSOs.

#### ***Improving Administrative Capacity for Better WSS Delivery***

5.142 Effective stewardship of the WSS sector requires more data, greater monitoring and evaluation systems, and better institutional structures to coordinate on an overarching strategy.

- **For immediate action:** Create a separate directorate for WSS in the GoGB whose role would be focused on strategic planning and coordination while the physical execution of projects will rest with the GBPWD and LG&RD. Institutionalize the monitoring function in the WSS directorate.
- **For pursuit over the medium-term:** Prepare a strategy that puts the WSS in the perspective of the overall national MDGs and development targets—a shift from existing input oriented planning approaches—and provides a common basis for planning and coordinating the efforts of various public agencies. The strategy should build on a review of the Uniform WSS Policies adopted under the Social Action Program (1992-2002). In addition, the collection of more data on WSS indicators could usefully be initiated as a part of the exercise.



### ***Improving Fiscal Planning and Spending Practices***

5.143 Given the scarcity of resources for investing in WSS, it is essential that spending be effective and efficient.

- **For immediate action:** Adjust the split between current and capital spending to devote more resources to recurrent and maintenance costs as well as for initiatives aimed at increasing quality assurance in existing projects. Focus any increases in spending on sanitation projects in urban areas, and explore avenues to attract additional resources from outside.
- **For pursuit over the medium-term:** Introduce greater cost recovery in WSS projects, particularly in urban areas, and create institutional mechanisms to provide oversight and monitoring opportunities to user groups, enhancing accountability.

### ***Building on the Strengths of CSOs for Greater Outreach and Accountability***

5.144 Public-private partnerships should form an integral part of the WSS regime in GB, both to overcome fiscal and technical constraints faced by the public sector and to enhance the participation and voice of the ultimate beneficiaries.

- **For immediate action:** Actively engage CSOs like WASEP, AKCSP, AKHSP, KADO and other CSOs at the formulation stage of WSS strategy.
- **For pursuit over the medium-term:** Experiment with models of joint planning and financial resource sharing at the union council and municipality level to increase the effectiveness of public and CSO spending.

## **5.6. Concluding Comments - The Prospects for Enhanced Public Service Delivery**

5.145 The special geography, sparse population, weak technical, human and institutional capacity in the public sector are amongst the main causes of weaker service delivery outcomes in GB in social protection, education, health, and WSS. These areas are closely interlocked, in that improvements in one have important effects on the others.

5.146 Improving institutional effectiveness of the state institutions responsible for administering social safety programs, improving monitoring and fiscal capacity for effective use of resources, and scaling up existing programs while catering to the needs of the poor and vulnerable in GB requires establishing a specialized agency in the GoGB. Better SP mechanisms would help vulnerable individuals avoid giving up the medium-term benefits of education for the immediate need to respond to an adverse shock.

5.147 Improving access and retention at all levels of schooling, enhancing the quality of education, and strengthening the link between education and employment are crucial for the human development and growth in GB. The increasing risk of dropout from schools due to rising costs of quality education demands additional investment in safety nets and scholarships. Greater collaboration between CSOs, and the public and private sectors provides one option for teacher training, curriculum development, performance monitoring, and the delivery of market-oriented skills. More concerted efforts are required on improving girls' schooling by upgrading a primary school in each district into a girl's school with boarding facilities.

5.148 Enhancing access to and utilization of health care hinges upon addressing several challenges including low access and quality of health services, high unit costs due to sparse population and severe staff shortages. A decentralized decision making process would also be essential to bring the process closer to the client, attracting more donor engagement, and improving coordination with CSOs. A range of policy initiatives are needed, including mobilizing more resources, exploring innovative models to promote access and demand for health services, developing health insurance products, filling key vacant positions for doctors, nurses and LHVs, reducing absenteeism and low productivity through performance-based incentives, and exploring tele-health for secondary care facilities. Progress in other areas, like education and WSS, as well as infrastructure investments to facilitate transportation, will be key to improving health outcomes.

5.149 Public sanitation and solid waste management infrastructure needs to be expanded, especially in the growing urban centers like Gilgit, Skardu, and Hunza. The GoGB could begin to address the huge financing needs in this regard by preparing a WSS strategy, creating a separate directorate for WSS in the GoGB focusing on strategic planning and coordination and sanitation projects in urban areas, and exploring avenues to attract additional resources from outside. Such steps will be important to supporting good health outcomes, as well as agglomeration and growth, in the years to come.

## 6 Getting the Most Out of Infrastructure Investments and Boosting Growth

### 6.1. Introduction

6.1 The role of infrastructure in sustaining livelihoods and underpinning the transformation of GB can scarcely be exaggerated. In the absence of significant precipitation, most of the agriculture and greenery hinges on irrigation drawn from glacier fed rivers. Indeed, water is one of GB's key resources, and investments are being made to increase storage capacity and generate hydroelectricity. Expanding access to electricity is based almost exclusively on hydropower, and to date, only the smallest fraction of GB's potential has been tapped, awaiting the massive investments in generation and transmission to the rest of Pakistan that will only be feasible with external involvement. Finally, overcoming remoteness and connecting to the outside world hinges on transportation links, and the completion of the KKH led to a transformation of territory, opening a range of new possibilities (now disrupted north of Hunza by the Attaabad landslide). The development of communications, especially mobile phones, is having a similar impact across GB (Box 6.1). In order to extend the transformation and help underpin growth, continued investment is needed in essential infrastructure, and this chapter looks at irrigation, power and transportation. Many of the associated investment projects are so large in scope that they will require attracting financial and human resources from outside of the territory. Bringing them to fruition will give a major boost to the development prospects of both GB and the rest of Pakistan.

#### Box 6.1. Connecting People: The Growth of Telecommunications

Once isolated from rest of the world both in physical and digital terms, GB is experiencing an explosive expansion in telecommunication services. Until very recently, the Special Communications Organizations (SCO)—a government agency established in 1976 with the exclusive mandate to provide telecommunication services to the people of Azad Kashmir and Northern Areas—was the sole provider of landlines in GB. The SCO's services were crucial in connecting the remote GB to the rest of Pakistan, initially through an analog dialing system and later on through digital dialing infrastructure. Still for many years, household access to telephone services was limited mainly to small urban pockets, while access in more remote parts was facilitated through a limited number of small exchanges and SCO-run public calling offices in select villages where locals could go to make calls and send telegrams. As late as in 2004-05, household access to telephone services was less than 10 percent. In addition to the great difficulty in making and receiving calls, the costs were also prohibitively high, with a typical call from Gilgit to Karachi costing as much as a US\$1 or more per minute.

With the launch of the first mobile service in 2006, the landscape of the telecommunication sector in Gilgit-Baltistan changed dramatically. It is estimated that 45 percent of households in the six districts of GB have access to a landline or a mobile phone—a four to five fold increase in the coverage level since 2004-05. Currently, the region is served by major mobile service providers, including Telenor, Mobilink, Zong, and the SCOM (the mobile service provided by the SCO). In addition, the SCO is also providing internet services in key cities of GB, including Gilgit and Skardu. This rapid growth in telecom and information services is playing a key role in bringing down transaction costs for people and businesses, which have been unusually high in GB due to the difficulty of physical access and remoteness. Moreover, following global and national trends, the cost of telephone calls in GB have also come down dramatically, with a call from Gilgit to the United States now costing less than 2 cents per minute.

<sup>1</sup> PSLM 2004-05 and AKRSP Socioeconomic Survey data for 2005.

<sup>2</sup> This estimate for five districts of GB excluding Diamer. AKRSP Socioeconomic Survey data for 2008.

## **6.2. Extending Irrigation**

6.2 Straddling a desert mountain region with minimal precipitation, GB depends heavily on irrigation for agriculture, which supports the livelihoods of 80 percent of the population. GB plays a critical role in the overall hydrology of Pakistan, with large glaciers and seasonal snow cover representing significant natural storage and accounting for over 30 percent of the water in the Indus Basin Irrigation System. Hence, the effective management of water resources in general and the irrigation system in particular are central to the development prospects of GB and the rest of Pakistan. Most agricultural production in GB is subsistence and the return to investment in irrigation is generally low given the lack of commercialization and intensification. Faced with steep slopes, irrigation schemes tend to be local, serving smaller communities that produce mainly for the local market. Progress in the agricultural sector will have direct bearing on irrigation development, and there is scope for increasing the value of water management by combining irrigation investments with water provision for household use as well as mini-hydroelectric generators.

6.3 Public spending on irrigation is considered insufficient, especially with respect to maintenance and improvements to operational efficiency. Various public agencies are involved in the management of the sector. Maintenance of irrigation systems requires strong local stakeholder engagement and a high level of cooperation to ensure that various farming interests all along the channel are receiving adequate water. CSOs have played a very important role, building on the high levels of social capital present in GB. There is a long history of participatory development and management of irrigation, and this approach has often proven more sustainable than the irrigation schemes constructed by public-sector programs. The involvement of AKRSP in the last two decades has further strengthened the process by organizing water user communities. These institutional developments will contribute greatly to future progress in the sector.

6.4 Irrigation is characterized by a high degree of interdependence between communities who need to agree on investments of capital and labor, allocations of water that vary depending on the circumstances, and contributions of labor and resources to maintain the irrigation assets. For example, communities in the Hunza valley that are better able to meet these challenges and organize participatory irrigation schemes have generally fared better. In the valley of Chilas, where community divisions have been more pronounced, the development of irrigation and more value added agriculture has lagged.

6.5 Concerted efforts will be needed by all stakeholders to ensure that irrigation and water management contribute as much as possible to the development of GB. To this end, several steps are recommended, including (i) enhancing water management by preparing an integrated water resource management (IWRM) policy and strengthening related institutions, (ii) augmenting the quantity of water available through operational improvements, managing demand (including user fees), building storage capacity and ensuring sound environmental practices, and (iii) increasing the return to water resource investment by adopting newer technologies and integrating schemes with water for domestic use or mini-hydroelectric projects.

## **Development Performance to Date**

6.6 Given the importance of irrigation and agriculture in GB, the extreme lack of data is astonishing. The most recent Census of Agriculture was undertaken in 1990. The two existing networks of hydro-meteorological data collection, WAPDA and PMD, are not sufficient for the purpose of water resource planning, development, and management using a basin approach. More detailed information is needed on the number of open channels, the amount of water diverted into the channels, and pattern of land use, the variation in river flows, the sediment load in the water, and the average precipitation. There is a critical

need for more data to help inform policy. The discussion below seeks to piece together whatever data is available as best possible.

6.7 The most significant features of the regional climate of the upper Indus are low overall precipitation, wide range of temperature between summer and winter, and severe frosts during the winter season. With rainfall in the range of 10 - 20 cm per year (insignificant for any form of agriculture and varying widely across the region), GB is generally arid, making irrigation essential to meet the water requirements of agriculture. Ground water is also limited, and stream flows from snow and glacier-melt provide the major source of water. The 1990 census shows that nearly 66 percent of the irrigated area is served by open channels fed by snow and glacier melt waters, a pattern that does not appear to have changed significantly in the intervening years (Table 6.1). Springs that provide more stable flows are relatively limited. Surface irrigation, covering 20 percent of cultivable area, is the largest system of irrigation practiced in GB.

**Table 6.1. Irrigated Area by Type of Irrigation in GB During 1990**

Source of Irrigation	Area Irrigated by Types of Irrigation	
	(ha)	(%)
Water Channels fed by Snow- and Glacier-melt	47,096	65.8
Water Channels fed by Spring	13,716	19.2
Tank	10,297	14.4
Tube wells	183	0.2
Others	302	0.4
Total Irrigated Area	71,594	100.0

*Source: 1990 Census of Agriculture, Northern Areas, Vol.111.*

6.8 There are temporal and spatial variations in the availability of surface water coupled with seasonality, as snow and glacier-melt is reduced significantly during the winter months (December to April). River flows during the summer are more than 5 times higher than during the winter. This extreme seasonality heightens the need for developing new storage capacity and mitigating the loss of existing storage from sedimentation, in order to ensure sustainable water supplies for irrigated agriculture. Much of the sediment load in the water is a natural part of the geologic processes of the area, but steep channels also contribute significantly to the transportation of sediment, and careful management of channels and streams is essential to reduce erosion. There is also substantial climatic variation within GB based on altitude, and agricultural practices differ accordingly. Single cropping is the norm in areas located at higher, cooler altitudes, whereas double-cropping is practiced in the warmer valleys.

6.9 Despite the presence of major irrigation works in GB, there is a critical need to expand water diversion to meet growing agriculture and domestic water requirements. According to the Census of 1998, the population of GB will increase from 0.88 million in 1998 to 1.60 million by 2025. This growth rate of 2.0 percent per annum implies that diversion will need to rise at a similar rate if the current level of water usage and food consumption per capita is to be maintained or improved, consistent with meeting the MDG targets on reducing hunger and malnutrition. There is significant potential for development in the water sector with opportunities for horizontal expansion in the irrigated area as well as through the development of small scale irrigation systems. Of the total cultivable area of 118,000 hectares (as indicated in the MTDf), 72,000 hectares are irrigated. With sufficient water, the remaining cultivable area could be developed, increasing the irrigated area by 64 percent.

6.10 With the intensification of water resource use, greater reliance on pipeline systems may be warranted. As noted above, open channels as a part of surface irrigation systems are the most commonly used at

present, but the mountainous terrain of GB brings frequent landslides and water conveyance losses are extremely high. Pipeline water conveyance systems tend to be more stable, and the gradient can be used for developing hybrid systems that generate hydropower and pressurized irrigation for high valued fruits and vegetables using hydraulic heads. Such systems can also be used for fertigation (the application of water soluble fertilizers), and have already been installed by farmers with the support from WMD-AD. Several public sector institutions have also noted that pipe-flow irrigation systems can be cost effective, as demonstrated in Turmai Village, where the community worked in partnership with WMD and the private sector to implement a pipe-flow irrigation scheme that resulted in a tremendous reduction in water travel time, as well as a fourfold increase in the supply of water enabling an expansion of cropping intensity by 50 percent. The spatial heterogeneity of GB heightens the need for approaches tailored to each locality (Box 6.2). This means making the most of indigenous knowledge about the local physiology and characteristics, which can be an important factor in ensuring effective water management and successful implementation of irrigation schemes.

### **Box 6.2. Community Engagement and the Role of CSOs**

Local communities have long played a central role in irrigation, and CSOs have effectively built on this tradition to expand irrigation related activities. Sustainability was a major challenge for public works projects on irrigation, and close community involvement has been found to be an essential feature of successful schemes. During the 1980s, AKRSP reinvigorated the participatory approaches to the development of open channels. In the Gilgit District, hundreds of open channel development and rehabilitation projects were completed by Village Organizations (VOs) supported by AKRSP. Combining local knowledge with modern engineering skills in the planning, design, and construction of new channels helped overcome the challenging geography in GB and deliver irrigation services. Efforts to improve irrigation infrastructure with limited community involvement, like some of the projects initiated by the Public Works Department (PWD) in years past, tended to be less successful.

However, recent experiences with the rehabilitation and remodeling of irrigation systems by the public sector have showed results, substantially increasing the command area. They also demonstrate that when water users participate and contribute towards the cost of the project, it results in better quality of construction and enhanced ownership by the community. This was illustrated by the success of the state-funded "National Watercourse Improvement Project" that lined 600 water courses; 22 percent of the cost was contributed directly by farmers. Under this program, the Water Management Directorate of the Agriculture Department (WMD), refined the participatory development process further by organizing Water User Organizations (WUOs) to implement the improvement program. It also involved a third party, NESPAK – National Engineering Services of Pakistan, to verify the design and supervise the projects. The outcome was enhanced community participation and a higher quality of works.

There is scope for scaling up the participatory approach to larger projects, even though the more complex components may be beyond the capacity of local communities and will need to be contracted out to private sector companies. A successful example of this type of approach is the construction of mini dams in Punjab Barani Areas. This model could usefully be adapted to include works supported by public-sector institutions, like the PWD, LGRDD and WMD-AD, as well as AKRSP.

Engaging local communities, supported by CSOs, is also an essential element of successfully sustaining irrigation infrastructure and managing water distribution. Communities traditionally claim a right to the usage of water flowing through their village. Under the traditional (Warabandi) system, water users take turns irrigating their fields for specific periods of time, a system that has proven a durable irrigation management practice in GB. Similarly, the collective approach to ensuring the adequate operations & maintenance of open-channel systems reflects their common property origins. The maintenance of irrigation assets was provided for through annual in-kind contributions of labor or cash from all water

users, typically undertaken at the beginning of the crop season in spring, when water flows are low or nil. Farmers may also participate in mid-season de-silting operations on channels where silt loads are heavy.

The control structures generally used in open channel systems are straightforward and range between sets of flat stones, rudimentary turnouts (generally constructed from rocks or wooden turnout gates), sedimentation tanks or stilling basins built at the head of the channel to reduce inflow of heavy silt loads. Several water users have also dug shallow still basins close to their fields where deposited silts are removed and mixed with animal manure and spread in the fields to improve soil fertility and water retention. Currently, the WMD of GB is lining the earthen tanks at the farm level using stone masonry to allow farmers to store available water at night. Some villages employ a ‘ditch rider’ (irrigation specialist) during the irrigation season to patrol the open channels, adjust and clear debris from the intakes, plug leaks and repair small breaches, and otherwise ensure that the system delivers. Where ditch riders are not employed, farmers take turns patrolling and maintaining the channel, usually at the time of their irrigation turn. Whenever a major breach or other maintenance emergency occurs, all the water users of the channel will participate in its repair. The maintenance of field channels is left to the individual water user.

Despite extensive investment in the water sector, growing demand and pressure requires the continuous development of GB’s vast potential. The successful experience with community engagement and CSO support needs to be scaled up to medium- and large-scale irrigation schemes, involving all stakeholders, including the private sector, and helping lower the unit cost of irrigation and increase income earning opportunities from agriculture. Progress in this area would be helped by systematically applying an IWRM framework, covering all sources and uses of water at the river basin level, considering cost-effectiveness and sustainability. This will be especially important as population grows, innovative systems like piped water supply schemes proliferate, and the competing uses of water become more varied.

## **Key Challenges**

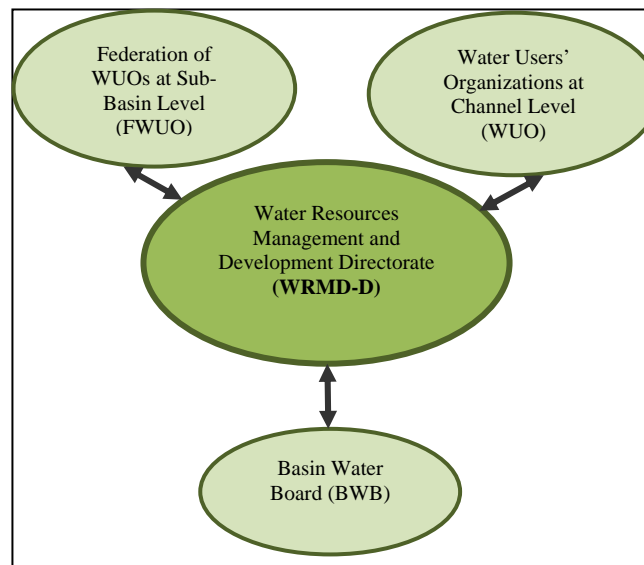
### ***Public Administration and Key Policy Issues***

6.11 With the establishment of the GB Public Works Department (PWD) in the mid 1970s, construction of relatively large size open channels in the region was supported by the government of Pakistan. Sustainability has been a major challenge, however.

6.12 Significant legislative, policy and institutional gaps need to be filled to achieve satisfactory governance in irrigation. Presently, there is no formal water policy or institutional mechanism to guide integrated water resource management (IWRM) and plan basin management. Human resource limitations in the public sector departments are acute, with few staff having strong backgrounds in irrigation and water sector management. Opportunities for professional training are limited, and the absence of links between in-service training and promotions is a disincentive to staff.

6.13 Strengthening the institutional structure could begin to address some of these issues. A Water Resource Management and Development Directorate (WRMDD) could usefully be established to formulate policy and implement development programs with all stakeholders. Under the proposed structure (Figure 6.1) water user organizations (WUOs), formed at the sub-basin level, could be institutionalized into a Basin Water Board (BWB), which would work with the WRMDD to improve operational management of the open channel system. Technical support for these two institutions would need to be provided by the existing line departments.

**Figure 6.1. Institutional Framework of a Proposed Water Resources Management and Development Directorate**



6.14 Several key policy issues stand out in reviewing the administration of the irrigation sector, including promoting equity in access to irrigation, managing the demand for water, adapting large water schemes to the particular circumstances of GB, clarifying water rights between GB and the rest of Pakistan, and ensuring environmental aspects are given due consideration.

6.15 *Promoting equity.* The extreme variability in topography and the associated single- and double-cropping practices lead directly to very unequal outcomes, with those living in the harsher single-cropping zones much poorer. The returns to investing in irrigation are also lower in single-cropping areas. An appropriate balance needs to be struck between trying to reach the poor with critical irrigation infrastructure services and choosing investments that will yield the highest return.

6.16 *Managing demand.* Reducing the huge losses resulting from water conveyance across rugged terrain and enhancing demand management warrant high priority in efforts to improve water availability. At present there is no institutional mechanism to provide support to WUOs to improve operational and demand management of the open channel systems. Rural communities also lack capacity for undertaking medium-size irrigation schemes and managing the community institutions at the sub-basin level. Developing a capacity-building program linking rural communities, the GoGB Department of Agriculture, and the Gilgit-based Karakoram International University would be an important positive step.

6.17 *Tailoring national programs.* The federal government has extended large-infrastructure projects for canal irrigation to GB. These national initiatives, such as the Prime Minister's program and the "Introduction of High Efficiency Irrigation Systems for Enhancing Water Productivity" program, need to be adapted to the specific characteristics of GB. For instance, more emphasis on drip and sprinkler irrigation systems is needed in GB compared with approaches applicable to less mountainous regions.

6.18 *Establishing water rights.* The development of large water projects also requires the establishment of a formal water rights regime for GB. At present, the national Water Apportionment Accord of 1991 does not provide for specific water entitlements to GB. This can be a source of conflict between GB and the four provinces on the diversion of water. There is a need to initiate a national level dialogue for the allocation of formal water rights.



6.19 *Safeguarding the environment.* Competing demands for water strain water availability and jeopardize the fragile ecological balance of GB. This is due to the lack of IWRM planning and coordination for the development and management of water resources at the basin level. The flow of freshwater streams to wetlands has been diverted, and there are growing concerns about increased disposal of sewage and agricultural effluents in streams and open channels, harming aquatic systems.

### ***Financing Irrigation***

6.20 Developing and maintaining the water resources critical to sustaining agriculture and meeting other water needs in GB requires substantial financial resources. The capital allocations of the GB budget to the irrigation sector appear inadequate, attracting only 2.6 percent of the total ADP in 2007-08 (Table 6.2), and show substantial volatility. These concerns are compounded by low and variable fund utilization rates, ranging between 149 percent in 1998-99 to 18 percent in 2005-06. The low utilization rates are associated with delays in releasing funds, lengthy procedures for awarding contracts, weak capacity of professionals managing the funds, and ineffective monitoring of projects.

**Table 6.2. Development Budget for Irrigation Sector in GBs**

Years	Development Budget		
	Allocation (Rs. millions)	Utilization	
		(Rs. millions)	(%)
1995-96	3.0	3.0	100
1996-97	2.8	2.8	96
1997-98	6.0	8.9	149
1998-99	17.9	13.8	77
1999-00	16.5	15.9	96
2000-01	35.9	25.4	71
2001-02	16.1	3.3	21
2002-03	11.6	3.4	30
2003-04	16.1	11.0	68
2004-05	26.3	21.6	82
2005-06	52.2	9.2	18
2006-07	58.4	-	-
2007-08	120.1	-	-

6.21 While recurrent spending specifically for irrigation is not available separate from the rest of the relevant department's responsibilities, it appears that expenditure has risen substantially in recent years (Table 6.3). Sustaining the expenditures needed to maintain irrigation infrastructure is challenging, and water fees could play an important role in enhancing cost recovery. WUOs could be engaged for effective enforcement.

**Table 6.3. Non-Development Budget for selected Sectors in GB**

Years	Non Development Budget (Rs. in millions)			
	Agriculture	LGRDD	GB-PWD Secretary	GB-PWD Building Works
2003-04	34.1	30.2	10.5	360.7
2004-05	38.6	32.9	10.6	373.6
2005-06	41.9	36.7	11.9	407.5
2006-07	48.2	46.1	13.4	440.3
2007-08	51.1	51.4	15.2	238.6

6.22 In general, water sector institutions and their coordination need to be strengthened in order to be able to implement water-resource development and management projects. Effective use of limited financial resources would be helped by improving integrated planning and implementation, and building on the community organizations established by AKRSP, like the VOs, WOs or LSOs.

### **Looking Ahead: Policy Options and Recommendations**

6.23 Progress in the further development and management of water resources in GB would be helped by initiatives in three areas: (a) improving water management, (b) augmenting water availability, and (c) raising the return on water related investments. As discussed in more detail above, agriculture remains a key source of livelihood for the majority of the people of GB, and as an essential input, the effective use of the huge water resources of the region is essential to improving well-being. Good stewardship of water resources in GB is also an issue of national significance to the rest of Pakistan.

#### ***Improving Water Management***

6.24 Strengthening participatory planning and building adequate institutions for the management of water is essential in a context of growing pressure on available resources.

- **For immediate action:** Establish Water Resource Management and Development Directorates with the participation of all stakeholders.
- **For pursuit over the medium-term:** Formulate an IWRM policy and prepare basin management plans. Increased data collection will be central to the effort.

#### ***Increasing Water Availability***

6.25 Water availability could be augmented through the application of participatory IWRM approaches to developing the major river basins of GB.

- **For immediate action:** Manage water demand by enhancing cost recovery based on user fees (enforced by WUOs), using transparent and participatory procedures in allocating water, and building awareness about the need for water conservation and environmentally sound practices.
- **For pursuit over the medium-term:** Seek to reduce operational losses in the existing channels by lining channels, increasing storage capacity by constructing small-scale ponds

or tanks with sand filters at the farm or command levels, and managing the shortfalls in water supply in some areas by implementing water lifting schemes.

***Raising the Return on Water Related Investment***

6.26 The productivity of water is bound up in the agricultural output enabled by irrigation and in the other uses like in the home or for hydroelectricity.

- **For immediate action:** Expand the use of more advanced technologies, especially in those areas where it is feasible to recover costs through the introduction of user fees and in areas where there are no water disputes. For example, pipeline water conveyance systems enable pressurized irrigation for high valued fruits and vegetables as well as fertigation to increase agricultural yields.
- **For pursuit over the medium-term:** Incentivize greater outlays by integrating irrigation investment with other purposes, like mini-hydroelectric power generation or water for domestic use.

### **6.3. Boosting Energy**

6.27 Access to energy is essential for economic and social development, as it is a key input to raising the productivity of private sector activity as well as public service provision. GB is blessed with huge hydroelectric potential and increasing power generation could serve as an important lever for economic growth both locally and in Pakistan generally, which is experiencing major seasonal variations and shortages of power that are hampering activity. At present, most of this hydroelectric power is untapped, and access to electricity within GB is also limited. There are abundant Clean Development Mechanism (CDM) opportunities within the interdependent energy, forestry and agriculture sectors in GB. Development of renewable energy projects can not only curtail carbon emissions to improve environmental sustainability, but could also generate additional revenues to finance critical investments in achieving energy security for the region and the country.

6.28 While several sites have been identified as suitable for hydropower development from an engineering standpoint, progress on developing these resources is hampered by difficult access and the need to develop ancillary infrastructure to evacuate the additional electricity generation to load centers within GB and in the rest of Pakistan. The sparse GB population, spread thinly over a vast terrain and engaged in limited economic activity, with the exception of a few more substantial load centers, means that there is little impetus to establish a regional grid, or connect to the national grid, even though this would enable significant seasonal complementarities, as well as mitigating inequitable access, substantial load-shedding, and voltage fluctuations. Looking into the future, the recent administrative changes could bring additional development funds (public and private) to spur economic activity in the region. The intra-regional imbalance and distances between power generation sources and demand centers, with some areas having excess capacity and some being in deficit, necessitate the construction of a regional grid for an equitable supply of power across GB.

6.29 The unclear legal and constitutional status of GB poses further challenges, impeding private and foreign investment, creating institutional and policy dysfunctions, and undermining the transfer of much-needed technical and managerial expertise into the region. For example, before Azad Jammu and Kashmir (AJK) undertook its first private hydropower project, the authorities clearly identified the constitutional issues, secured political commitment from the national government, and streamlined the legal framework for the enterprise. Likewise, GB would have to strengthen the institutions governing the power sector, among other initiatives, in order to attract the necessary investment.

6.30 The development of the electricity sector hinges on making progress in improving the governance framework, widening access to electricity, and increasing infrastructure (expanding generation, transmission and distribution capacity). Governance will be improved by reviewing the institutional capacity and functions of the Department of Water and Power, as well as developing a regulatory framework that more clearly defines the roles of the public and private sectors, and outlines the rules for investment. Broadening electrification hinges on enhancing cost recovery through outsourcing metering, billing, and collections, as well as making technical investments along the power supply chain that lower losses and pilferage. Finally, a comprehensive business plan (with time bound actions) needs to be prepared that outlines expanding infrastructure development, increasing revenue and capital expenditure, lowering transmission losses, and enhancing energy efficiency and conservation.

6.31 The CSOs in GB have experience in leveraging social capital in the energy sector as well. For example, the AKRSP has worked with local communities to construct and manage micro hydel projects to generate electricity in remote areas. Some lessons from these experiences can be applied to strengthen the accountability in service delivery and cost recovery aspects for bigger projects, helping ensure

communities' sustainable access to energy. It is critical, however, to ensure that appropriate regulatory and technical standards are put in place to ensure uniformity of specifications among power projects to conform to national standards for necessary interconnections at subsequent stages.

## **Development Performance to Date**

6.32 In many ways, GB has made significant progress in extending the electricity transformation, installing a series of hydroelectric plants and electrifying major towns. However, gaps remain in rural areas, causing other problems like deforestation. Substantial effort will be needed to increase installed capacity, keep pace with growing demand, expand access further, and move forward on several planned mega-projects of national importance. In addition to encouraging the development of large hydropower projects, care will need to be taken to ensure that GB benefits from such initiatives as much as possible, in terms of income earning opportunities for local residents, as well as revenue from the subsequent sale of electricity.

### ***Supply***

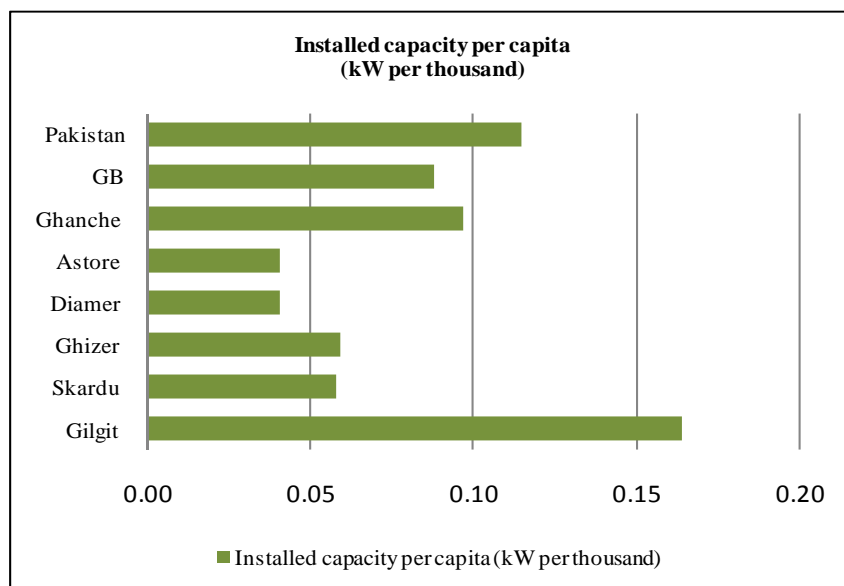
6.33 There are currently 93 hydropower stations ranging in size from 0.1 Megawatt (MW) to 18 MW, with a total installed capacity of 77 MW. This capacity is to increase to 108 MW in 2008/09 as projects under construction come on stream. In addition, mini and micro systems run by Village Organizations (VOs) are also tapping hydroelectric power. It is worth noting that the extreme climatic conditions faced by the region—very cold prolonged winters and hot summers—result in high energy demands for heating and cooling as well as substantial seasonal variation in power generation. The effective capacity of the hydro plants declines by as much as 50 percent in winter due to reduced water flow in the rivers and streams, at a time when the demand for energy is highest for heating and lighting. Efficiency is also a concern. GB's electricity transmission and distribution system has not received adequate investment in recent years, and is overloaded, contributing to high transmission and distribution system losses—estimated at between 25 percent and 30 percent, compared to the average for the rest of Pakistan of 21 percent. Systems need to be upgraded in order to improve stability and reduce losses. This needs to be complemented by improving metering and billing collection systems through bringing in greater transparency and accountability in these systems. As mentioned, outsourcing these services to the private sector could be one way of improving and strengthening these systems.

6.34 The authorities expect to increase the installed capacity to 250 MW by 2011, and 408 MW by 2015, but the projected growth in supply does not reflect the impact of reduced capacity in winter, and the current program of capacity additions will fall short of the projected demand, especially in winter.<sup>130</sup> It is also worth noting that there is substantial variation in capacity by district. While installed capacity per capita for Gilgit is higher than the Pakistan national average, for the rest of GB it is significantly lower (Figure 6.2). Given that a regional grid has yet to be established, this pattern also provides a good indication of inequities across districts in terms of access to electricity.

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<sup>130</sup> Vision 2025, GB Water and Power Department.

**Figure 6.2. Installed Capacity Per Capita (kW per thousand)**



### ***Demand***

6.35 On the demand side, electricity consumption is growing and expanding access is central to transitioning to more modern sources of energy, as there is no natural gas network in the region (compared with the rest of Pakistan where about 30 percent of the population has access), and importing kerosene and diesel is very costly. At present, GB remains dependent on outdated and inefficient sources of energy, with more than 90 percent of households using firewood for cooking and heating. Even commercial establishments, hotels, and small enterprises use firewood for heating in winter, which places a heavy burden on GB's strained forest resources. Animal dung cakes are used for heating and cooking in high altitude valleys, particularly in alpine pastures. The use of firewood and animal dung cakes is hazardous to health.

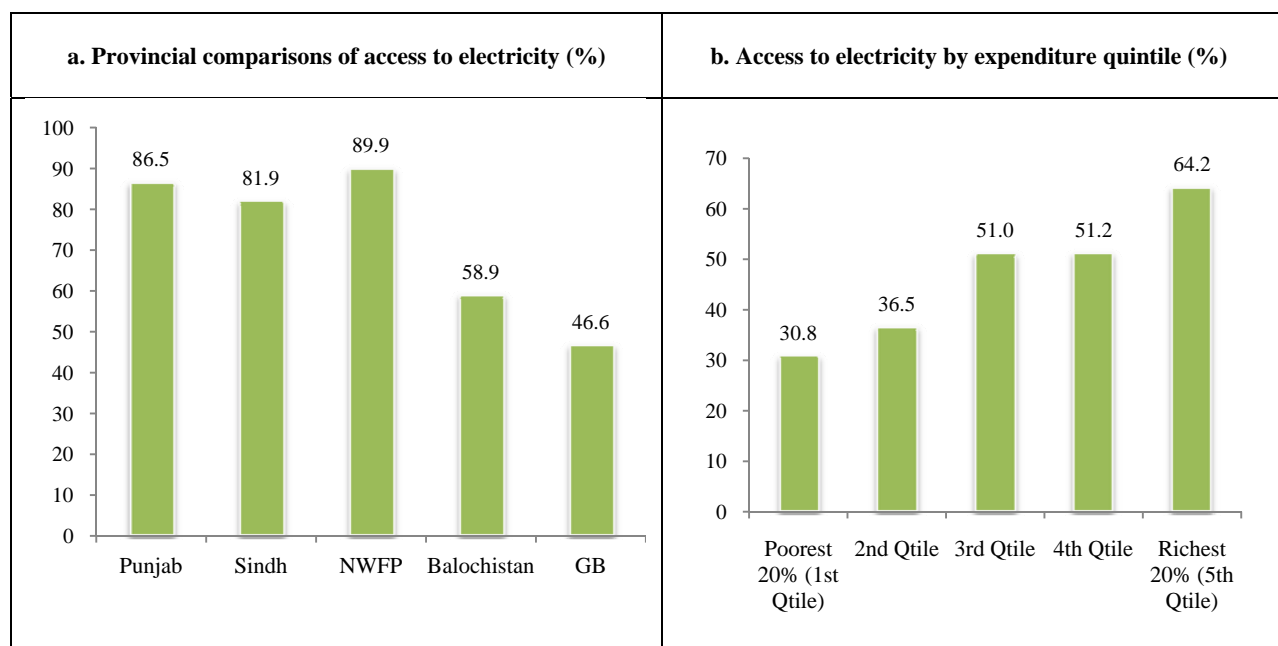
6.36 Information on energy usage is limited, and the last formal survey was carried out by the Water and Power Development Authority (WAPDA) and the German Agency for Technical Cooperation (GTZ) in 1996. This study projected that electricity demand would grow to around 204 MW by 2016 (under intermediate growth assumptions) - and 582 MW if consumers were to switch to electricity for cooking and heating (reducing the burden on forests). A more recent study by the Associated Consulting Engineers (carried out as part of a feasibility study for Gilgit-Baltistan Water and Power Department (GBWPD) in 2008 on the establishment of regional grids) projects that electricity demand will reach 534 MW by 2017, including the potential load from heating and cooking as well as normal growth in small industrial and commercial activities. In any event, substantial investment will be needed to ensure that supply, even during the lean winter months, keeps pace with demand.

### ***Access***

6.37 The need for investment in generation will be augmented by efforts to expand access, much needed to help transform far-flung communities and drive some catching up with the rest of Pakistan. Household income and expenditure surveys show that access to electricity, as measured by whether electricity is used for either lighting or cooking, is far lower than in the provinces (Figure 6.3a). There are currently about

70,000 electricity connections—an access rate of about 72 percent, which is comparable to the country’s average of 70 percent.<sup>131</sup> Limited access to electricity translates into much lower ownership rates of key electric equipment, like fans, telephones, refrigerators, and TVs, impacting the quality of life (Annex 7). In terms of the equity of access, household surveys highlight that rich households are twice as likely to use electricity as poor households (Figure 6.3b).

**Figure 6.3. Access to Electricity: Provincial Comparisons and by Expenditure Quintile**



Source: World Bank staff estimates

6.38 Lack of access to reliable electricity is a major bottleneck for the private sector, and leads to the use of expensive alternatives. Kerosene oil is a popular source of energy for cooking and lighting, and even in parts of GB where there is electricity, kerosene lamps and candles are used for lighting because of frequent outages, interruptions, and load-shedding. Diesel is used primarily for generators in multiple private sector activities, such as mining in high altitude areas, and for transportation. Liquid Petroleum Gas (LPG) is only available in the larger towns. These fuels are more expensive in GB than in the rest of Pakistan, mainly due to transportation costs.

6.39 The access issues in GB are largely dependent on investment in connective capital infrastructure, such as connecting to the national grid and building regional grids. Such investment hinges on developing mega-hydropower projects with larger catchment areas in Pakistan.

### ***Mega-Projects***

6.40 Tapping some of the vast hydropower resources of GB with very large projects has the potential to spur growth in GB and become a significant positive factor in the economic prospects of Pakistan overall. At present, the installed electricity generation capacity in Pakistan is 19,800 MW, of which 6,599 MW

<sup>131</sup> Pakistan’s per capita energy consumption at 12 million British thermal unit (btu) is dismally low compared to India’s 14, Indonesia’s 22, China’s 35, US’ 340 and world average of 65 million btu/capita.

comes from hydropower. The GTZ estimates that GB's s hydropower potential exceeds 40,000 MW, almost matching assessments of hydropower potential in the rest of Pakistan of around 42,000 MW. Despite high initial costs, hydropower is a relatively inexpensive and clean source of energy (in addition to enhancing water storage capacity), that can be produced domestically, relieve shortages and load shedding that are harming economic activity, and help propel further growth and development of the country.<sup>132</sup> At present, Pakistan's energy deficit amounts to 4,000 MW during times of peak demand. The government is eager to proceed, and proposed mega-projects would deliver 19,170 MW, almost doubling existing installed capacity (Table 6.4). Indeed, the signing of a memorandum of understanding in August 2009 with the Chinese government to proceed with the development of the 7,300 MW Bunji Hydropower Project shows the national government's commitment to move forward with mega-projects, as part of a national strategy to strengthen the energy sector.

**Table 6.4. Hydropower Projects in GB**

Project	Location	Capacity (MW)	Completion date
<b>Under 50 MW:</b>			
In operation		77.0	
Under construction		31.5	
Projects in ADP		33.8	
Planned (2016)		266.3	
<b>Total Under 50 MW</b>		<b>408.6</b>	
<b>National Major Projects:</b>			
Skardu	Shigar River/Skardu	4,000	-
Diamer/Bhasha	Indus/Diamer	4,500	2019-2020
Bunji	Indus/Gilgit	7,300	2019-2020
Yulbo	Indus/Skardu	3,000	-
Rakhiot	Indus river	670	-
Tangus	Indus river	625	-
Altit	Hunza river	250	-
Dojjan	Astore	350	-
<b>Total National Projects</b>		<b>20,695</b>	

6.41 The government also seeks to accelerate the development of hydropower generation through public/private partnerships. As a part of the process, power sector reforms are being implemented, moving away from the current single-buyer model to competitive trading arrangements, and the Central Power Purchasing Agency was recently incorporated. As a result, power produced in any part of the country can be sold into the grid and utilized wherever there is demand, enhancing the rewards to investment. Figure 6.4 shows the major hydropower projects under development by the public sector as well as the private sector through the Public Private Infrastructure Board (PPIB). Private sector interest in neighboring NWFP and AJK has been high, which is promising for GB.

<sup>132</sup> It is worth noting that part of the cost of the proposed 4,500 MW Diamer-Basha Dam stems from the need to reroute some 147 km of the KKH, which would be submerged by the dam's reservoir.



**Figure 6.4. Major Hydropower Projects in the Public and Private Sector**



6.42 A few issues stand out in considering the prospects for mega-hydropower development. First, there is a need to connect GB to the grid, in order to enable the sale of excess supply, but also to meet the considerable demand for power at the construction phase - as high as 50 MW if the Ghazi Barotha construction serves as a yardstick. While feasibility studies suggest that the site power requirements for an 8 year construction period could be met through the use of diesel generation sets, this is costly, and the viability of extending the national grid ahead of the construction phase, rather than at the time of completion, could usefully be explored. Second, it is not a given that the people of GB would reap large gains from such projects, if they are undertaken mainly by companies, engineers, and labor from the rest of Pakistan, which may be a necessity given capacity constraints. In addition, with the financing necessarily also coming from outside GB, much will depend on the terms, the tariffs for the sale of electricity, and the framework for revenue sharing. GB will want to secure net revenues from such projects and see growth accelerate with widened business opportunities. Finally, it is worth noting that there are significant seasonal complementarities that could be exploited in linking GB to the rest of the country. In particular, peak water flow and hydropower production in GB occurs in the summers, when the rest of the country is faced with surges in the demand for electricity for cooling. Conversely, GB needs more electricity in the winters for warming, and could then retain more of the hydropower produced locally or import from the rest of the country.

## Key Challenges

### *Connection to the National Grid*

6.43 GB is not connected to the national grid, with the nearest possible point on the grid some 350 km to the south, across rugged terrain. The high transportation and building costs in the mountains mean that such a link only becomes economical when considered together with the envisaged mega-projects like Diamer-Bhasha or Bunji, in order to generate sufficient exportable power surpluses. Power usage within GB does not underpin enough high value added to warrant the expense of importing electricity from the rest of Pakistan, which in any event, itself is facing acute power shortages that are unlikely to be resolved in the near term. Investing in intra-regional grid connections would be beneficial, as proposed under the

Energy Policy of GB, helping to improve stability and address some of the substantial supply and shortage imbalances between the districts. At present, the overall plant factors are adversely affected by the inability to transfer power between the various districts of GB, combined with the lack of storage and pond capacity. This means that there are times when substantial excess electricity is simply lost, lowering the returns to the asset. To address this issue, a draft feasibility study has been prepared for the intra-regional grids and their interconnection, proposing a phased construction of three regional grids (Table 6.5). The implementation schedule is yet to be finalized.

**Table 6.5. Planned Regional Grids and Costs**

<b>Grid</b>	<b>Cost</b>	<b>Rs (million)</b>	<b>( \$ million)*</b>
Gilgit region	Line	1,435	17.8
	Grid station	4,338	54.2
	Sub Total:	5,773	72.0
Baltistan region	Line	820	10.2
	Grid Station	2,173	27.2
	Sub Total:	2,993	37.4
Diamer region	Line	1,406	17.6
	Grid station	2,336	29.2
	Sub Total:	3,742	46.8
Interconnection	Line	966	12.1
Total:		13,474	168.4

\*Exchange rate= Rs 80/\$

### ***Limited Scope for Regional Energy Trade***

6.44 In the current environment, opportunities to tap regional energy markets is seriously limited; which in turn further hampers the scope for developing the mega-projects that would bring benefits and revenues across the whole area through unified markets to trade electricity. There are several examples of large projects being developed to target electricity exports to a big neighboring market, including Bhutan, Laos and Paraguay. In all of these cases, the asset helps meet growing demand for electricity cleanly, while earning important revenues and serving as a major lever for economic growth.

### ***Public Administration and Energy Policy***

6.45 The Water and Power Department (WAPD) was established in 2005 and is responsible for the generation, transmission, distribution and retail supply of electricity.<sup>133</sup> The WAPD also operates and maintains existing assets, and plans and implements new projects. The Hydropower and Renewable Energy Policy for Gilgit-Baltistan was approved in July 2007. It is designed to govern projects generating up to 50 MW (for example, providing for competitive bidding on all projects above 5 MW). The policy recognizes the need for institutional strengthening of the Water and Power Department (WAPD) given its wide responsibilities and geographic scope. While the policy usefully sets out the objectives for the sector, more effort is needed to clarify the legal framework, specifying the jurisdiction of the courts, the applicable law, the dispute resolution mechanisms, the regulatory mechanisms, and the identity of the purchaser and the guarantor.

<sup>133</sup> It was spun off from the NAPWD in 2005 to increase the effectiveness of the sector.

6.46 The rules and regulations also need to be brought formally as close as possible to those prevailing in the rest of the country, as investors (and their lawyers and bankers) are now familiar with the national framework (its shortcomings notwithstanding).<sup>134</sup> For example, the national level Development of Renewable Energy for Power Generation Policy, approved in 2006, provides for the participation of the private sector, enables the use of carbon credits, compels distribution companies to purchase all power that is fully dedicated to such companies (or which may spill over from self-use), introduces the concept of “electricity banking” to enable private developers to generate and receive power at different places without incurring wheeling charges, and allows producers to sell and repurchase from the grid at different times, with deferred settlement. The ancillary GB policy does not adequately address energy conservation and efficiency issues (apparently being based on the assumption that local production will continually exceed local demand), and many of the efficiency enhancing features of the national policy, such as the concept of “electricity banking,” will not apply in GB until a regional grid and connection to the national grid are established. The latter is considered unviable at present, awaiting the development of mega-projects (which continue to be governed by the 2002 Power Policy). In the absence of a regional grid or a connection to the national grid, the plant factors are low and WAPD, while supportive of private investment, is reluctant to take on the liability of the high fixed charges resulting from low plant factors and commercial financing. Also, electricity tariffs are not linked to input costs. With all funding for electricity generation plants coming from the federal budget, the revenue and the budget for the sector in GB are somewhat de-linked, and the WAPD is not impacted by the plant factors.

### Box 6.3. Special Issues Related to Energy Sector in GB

*Private sector engagement:* Accelerating the realization of hydropower potential through public-private partnerships and other private investment under the Public Private Infrastructure Board requires urgent steps to review the current policy and streamline the coordination between the various agencies. The capacity of local institutions to deal with private sector issues of technical and legal due diligence also need to be enhanced and competitive bidding procedures should be adopted to ensure a level playing field to potential investors. Private sector interest in the neighboring provinces of NWFP and AJK has been high – a promising signal also for GB to develop a suitable regulatory framework for IPPs as well as to develop investment friendly policies for captive power generation.

*Special incentives:* In seeking private sector involvement and considering other investments, policy makers need to be cognizant that there may be a wedge between the financial and social return on electricity investment. Under-provision of this critical public infrastructure service leads to inefficiencies carried by the economy, as well as other factors like the burden on forests and the heightened incidence of upper respiratory disease stemming from the continued use of wood as fuel for heating and cooking.

*Conservation:* Energy efficiency merits greater consideration and awareness. Reducing system losses and improving conservation of heat in buildings through better design, cross-ventilation for optimum air flow, and the use of reflecting, absorbing and insulating building materials, including cavity walls or hollow

<sup>134</sup> At the national level, Pakistan’s energy investments and supply have not kept pace with growing demand, constraining growth potential and competitiveness. The energy sector remains institutionally fragmented and lacks integrated planning to develop a consolidated action plan to address the country’s energy needs in the short-, medium- and long-term. The sector is regulated by the National Electric Power Regulatory Authority (NEPRA) and the Oil and Gas Regulatory Authority (OGRA). National Policies for the energy sector include the Power Policy (1994), the Hydel Power Policy (1995), the Power Policy (1998), the Power Policy (2002), and two new policies specifically aimed at establishing policies for renewable energy—the NWFP Policy for Hydropower Generation Projects (2006) and the Development of Renewable Energy for Power Generation (2006). The hydropower sub-sector was first opened to the private sector under the Hydel Power Policy, but the experience was found unsatisfactory. The Power Policy (2002) and the NWFP Hydropower Policy were drafted with these lessons in mind, which helped improve sector policy. As a result, a number of hydropower projects are now under various stages of development.

blocks. Raising consumer awareness about the importance of paying electricity bills, and improving billing and metering is critical for energy conservation.

*Environmental concerns:* The urgency of developing GB's energy supplies should not overshadow the need to address potential environmental and social impacts of energy projects. It is crucial that future energy development in GB be complemented with rigorous environmental and social safeguards. A strategic environmental assessment of the entire energy sector and capacity-building programs for staff of WAPD and other relevant organizations involved in the energy sector are needed. Public consultation needs to be fully integrated into all stages of the energy planning and development process.

### ***Public Financial Management in Energy Sector***

6.47 Virtually all of the energy sector's operations in GB are funded through the annual budget and the PSDP. Close to 30 percent of the total GB's capital budget is spent on the energy sector and allocations have been rising in recent years. Recurrent expenditure, especially on operations and maintenance, however, is minimal, limited further by low recovery rates and high technical and commercial losses.

6.48 Proceeding with the projected capacity additions noted in Table 6.5 above (excluding the mega-projects) is dependent on the timely release of funds from the federal government. The program is expected to cost approximately US\$550 million.<sup>135</sup> In addition, the regional grid project requires about US\$270 million. This represents about 10 years' total government funding under the current Annual Development Plan. The financing needs for transmission and distribution upgrades, as well as road access, add more to these estimates. The actual funds would have to start being spent now for these projects to be ready by 2016. The GoP will find it difficult to raise the required resources internally. Hence, it is essential that these projects be made attractive for private investors or public-private partnerships.

6.49 The revenue from GB's electricity operations goes to the national government. The methodology for tariff setting is unclear and the writ of the National Electric Power Regulatory Authority does not extend to GB. Revenue collections have improved by about 15 percent with the creation of a separate subdivision for this purpose. Unlike in the NWFP, however, GB does not receive financial benefits from water rights charges or net hydroelectric profits. Unless this changes, the benefits to GB of mega-projects will be limited to secondary effects—based on whatever increases may be apportioned to GB from the national budget. Hence, it will be vital for the GoGB to try and establish a framework ahead of time, in order to realize the sector's potential to generate substantial revenue streams that may be deployed more independently by the local government.

### **Looking Ahead: Policy Implications and Recommendations**

6.50 Ensuring that the electricity sector spurs growth rather than acting as a binding constraint, both in GB and in Pakistan as a whole, will require strengthening the regulatory framework, widening access, and accelerating investment. Some of this is feasible over the near term, while other desirable actions will take longer to implement or will depend on a more favorable broader context.

### ***Improving the Institutional Underpinnings of the Sector***

6.51 There is an urgent need to better the legal underpinnings and governance of the power sector. This goal is best served by building capacity and following-through on several policy measures. The WAPD's

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<sup>135</sup> Estimates based on standard costs.

capacity must be strengthened to carry out its functions effectively. While the overall generation and distribution network of about 100 MW may seem modest, the mandate and responsibility of the WAPD is far-reaching and complicated by geographical constraints as well as by the region's relative isolation from the rest of the country. The department finds it difficult and expensive to contract services, and local staff lack the learning opportunities that would come from working with a large body of colleagues, foreign consultants, and contractors, as enjoyed by their counterparts in denser and more-developed parts of Pakistan. The WAPD carries out a wide range of tasks from generation to distribution, so it needs to be engaged in areas such as project evaluation and facilitation, economic feasibility analysis, tariff determination, administration (such as billing), and technical work minimizing system losses. In addition to enhancing capacity, progress in the sector would be helped by improving several aspects of the regulatory environment, as noted above. A first step would be to develop an energy policy tailored to the specific circumstances of GB.

- **For Immediate Action:** Undertake a professional assessment of the institutional capacity and needs of WAPD to ensure that the department has the diverse set of skills needed to manage the electricity sector of GB. Enhance enforcement of revenue collection, including by facilitating the clearance of arrears and outsourcing collection.
- **For pursuit over the medium-term:** Formulate a self standing Energy Policy for GB, that could (i) define the roles of the public and private sectors, (ii) consolidate the applicable rules, incentives and procedures for the private investor, (iii) establish independent tariff setting and dispute resolution mechanisms, (iv) streamline the dealings between the AEDB, the GoGB, and investors, (v) clarify and formalize the role of the national and GB governments in underwriting the obligations of the power purchaser, (vi) create a long-term funding facility enabling banks to lend based on risk weighted terms, and (vii) change Pakistan's baseline for carbon credits in the power sector from natural gas and hydropower to oil and coal.

### *Widening Access*

6.52 With about half the population of GB lacking regular access to electricity, expanding access is an important priority. The most direct way to increase hook-ups is through greater grid and generation investment (the next item discussed below), but other measures are also important, including developing alternative sources of electricity in areas that are likely to remain unreached by the grid over the medium-term, as well as enhancing conservation efforts to enable existing electricity supplies to go farther.

- **For Immediate Action:** In areas that are unlikely to be reached by the grid for some time, move forward on a program for developing local sources of electricity, particularly micro/mini hydro projects conforming to technical standardization and based on lessons learnt from the AKRSP model.
- **For pursuit over the medium-term:** Implement measures aimed at conserving energy and raising efficiency by reducing technical losses, improving the management of peak demand (in part through price signals), introducing aggressive policy measures to implement performance verification, payment enforcement, theft detection and prevention, using plant capacity more effectively, and encouraging energy efficient building design. These steps could play an important role in ensuring access in the electricity shortage context facing the people of GB at different times of the year.

### *Accelerating Investment in the Electricity Sector and Boosting Growth*

6.53 The large hydropower potential of GB can be a significant lever for economic growth, and needs to be harnessed with all due haste in order to boost government revenues, create new businesses, expand employment opportunities, and provide productivity enhancing access to power. Policy needs to encourage accelerated investment in mega-projects as well as grid connections (within GB and linking GB with the rest of Pakistan). Compared with the resources of GB, the costs are staggering. Even the cost of a feasibility study for a large national hydropower project is estimated to be around US\$4.5 million. Hence, financing needs to be mobilized from outside GB, both from the national government and the private sector. All new investments should explore the feasibility of linking them to the Clean Development Mechanism in order to benefit from any further financial incentives. Recognizing the funding challenges presently encountered by the national government and the private sector, feasible progress centers mainly on positioning GB to benefit from greater investment once circumstances improve.

- **For Immediate Action:** Strengthen capacity of the WPD to address technical, commercial and governance challenges in the sector, create technical and commercial departments to improve efficiency and cost recovery, and outsource metering and billing to the private sector. Prepare detailed feasibility studies for generation and transmission investments, including developing regional and national grid connections. Build on the successful experience of the WPD, especially in projects where no capacity payment is required (for example, the 18 MW Naltar IV project). Finance large hydropower projects for generation of electricity that will also be exported to the down country through the national PSDP and seek international financing.
- **For pursuit over the medium-term:** Enhance the enabling environment for private sector participation by strengthening the regulatory regime through capacity development in the WPD (or establishment of a local regulatory authority), extending the jurisdiction of the NEPRA (the national regulatory authority) to GB once an interconnection to the national grid becomes operational, establishing a single window regulatory approval procedure, preparing standard project documents (including the implementation agreement and guarantee document with the help of PPiB), developing a prioritized database of projects under on-grid and off-grid scenarios (ranked by estimated bankability and opened for private sector investment), and improving the incentive structure with a view to offsetting some of the area specific challenges and risks. The higher rate of return used to incentivize the completion of Malakand III in NWFP at the end of 2008 is a good example.<sup>136</sup>

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<sup>136</sup> It may be argued that Malakand III has its own peculiar business and operational model and its connection to national grid was an important factor underpinning its success.

## **6.4. Connecting with Better Transportation**

6.54 Developing and sustaining efficient transport services in GB is central to economic and social integration with the outside world. Remoteness and physical inaccessibility have constrained development in these parts for centuries, and the completion of the Karakoram Highway (KKH) in 1986 and the initiation of regular aviation services to Gilgit and Skardu have proved transformative in both economic and social terms. While these investments have been instrumental in breaking the spatial trap of the area, enhancing access to basic services and connecting to markets in order to harness the potential of tourism, trade and minerals, for example, hinges on further improving the existing road and aviation infrastructure.

6.55 The rugged terrain made the KKH difficult and costly to construct (it is widely hailed as an engineering marvel), and the effort is justified not only on the basis of daily traffic and usage alone, but also because of other considerations such as national cohesion, regional integration, and geopolitical factors. This link has now been severed north of Hunza by the massive Attaabad landslide on January 4, 2010, and the ensuing lake, burying, submerging and damaging about 18 kilometers of the KKH and 5 bridges as of early June 2010 (Box 3.1). Restoring the KKH across the landslide zone will be a key priority, once the hydrology of the area returns to some measure of normalcy. Transport by air and road is regularly disrupted by landslides, flash flooding, heavy snowfall, and challenging weather conditions. Still, these connections are a lifeline to remote communities, playing an essential role in enabling access to health and education services, and helping span distance and division to connect with markets and income earning opportunities.

6.56 Administrative capacity is essential to providing strategic planning, implementing projects, and maintaining assets. There are also critical policy issues that need to be addressed, including the treatment of state-owned transportation services, while encouraging greater private sector involvement. Though the throw-forward in the sector is comparatively small, limited fiscal resources need to target completing existing projects in a timely way and providing funds for adequate operations and maintenance. The latter can be helped by mobilizing civil society and community inputs. In the aviation sector, infrastructure and regulatory bottlenecks are a major concern if air transportation services are to be expanded and the entry of new service providers is to be encouraged.

6.57 In addition to the urgent need to rebuild the damaged KKH link in Hunza, several policy actions are needed in order to ensure that the sector supports robust development in GB as much as possible and facilitates progress towards the national goal of regional integration. These include strengthening public administration and planning, enhancing the maintenance of the roads system, and improving aviation services. For effective planning in the sector, comprehensive master plans for the aviation and road transport sector are needed that could help guide investment decisions. Improving road transport in GB would require increased financial allocations for road maintenance and providing more space for private sector transport companies vis-à-vis the state owned enterprises. Similarly, enhancing the reliability and reach of aviation services requires up-grading the airport infrastructure in Gilgit and removing regulatory barriers to starting direct international flight services in Skardu, essential for boosting international tourism.

## **Development Performance to Date**

6.58 The role of the transport sector has been central in linking the once isolated GB with the rest of Pakistan as well as with neighboring China. In historic terms, the establishment of the airport in Gilgit and the construction of the KKH were landmark developments that laid the foundations of the modern

transport sector in GB. Since then, transport infrastructure and services have grown steadily to serve greater numbers of people, but GB still lags well behind other parts of Pakistan in access to roads, airports, ground transport, and aviation services, and encounters a high level of uncertainty due to weather and landslides. Moreover, private sector participation is limited, and the public sector remains the largest provider of both infrastructure and transport services.

## Roads

6.59 The existing road density in GB is one of the lowest in the country. With a total road length of 4,523 kilometers spread over an area of 72,496 sq km, GB has a road density of only 0.06 km/sq. km, which is much lower than the national average of 0.32 km/sq. km (Table 6.6). Comparing the indicator of road length per million people, however, GB looks much better.

**Table 6.6. Road Network Comparison**

	Pakistan*	GB	Balochistan	NWFP	Sindh	Punjab
1. Road length (km)	267,000	4,523	51,000	30,000	80,000	106,000
2. Road density (km/sq km of area)	0.32	0.06	0.15	0.30	0.57	0.51
3. Road length per million people (km)	1,736	3,467	7,100	1,292	2,420	1,244

Source: Balochistan Economic Report - WB.

6.60 Within GB, the density and the quality of roads also vary significantly. In terms of road density and length per million people, Gilgit and Ghizer lag behind other districts (see Table 6.7). A large part of the overall road network in GB falls under the category of district roads, which is growing at an annual rate of about 6.4 percent. Currently, the size of the district road network is around 4,523 km, while the national roads account for a total length of 617 km. The national road component in GB comprises two main corridors: the KKH, which stretches 440 km in GB territory from Basari to Khunjerab Pass at the Pakistan-China border (Box 6.4), and Skardu road which measures 177 km connecting Skardu with the KKH. These two national roads are managed by the National Highway Authority (NHA) of Pakistan.

**Table 6.7. District Road Network by Population and Area in GB**

District	Road length (km)	Projected population as of 2007 * (in millions)	Road length per million people (km)	Area (sq. km)	Road density (km/sq km of area)	Paved roads (%)
Gilgit	550	0.308	1,786	18,270	0.030	20.2
Skardu	1,218	0.275	4,429	18,630	0.065	12.5
Diamer	596	0.165	3,612	7,990	0.074	5.4
Ghizer	520	0.154	3,377	11,970	0.043	48.5
Ghanche	465	0.110	4,227	8,194	0.056	26.7
Astore	465	0.088	5,284	4,096	0.113	28.4
Total	3,814	1.10	3,467	69,150	0.055	21.1

Source: GB Policy and Planning Department.



#### Box 6.4. From Silk Route to the Karakorum Highway (KKH) (Note new map)

The Silk Route was established around 100 BC and remained a significant trade route linking East and West well into the 15th century, when technological advances enabled cheaper trade by sea. In addition to trade, the trail was used by explorers, invaders, missionaries and philosophers, and followed the route from Xian in China, through the great Gobi Desert to Dunhuang, where it bifurcated to reach Kashgar through the Taklamakan Desert, before continuing west. It is from Kashgar that a branch of the Silk Route entered the subcontinent through the Pamir and Karakoram mountains. The KKH revived this ancient route with a 1300 kilometer (800 mile) ribbon of asphalt, winding through extraordinarily difficult terrain to connect Kashgar in China with the plains of Pakistan and realizing the vision of an agreement reached between Pakistan and China in 1966. This amazing feat of engineering was undertaken at a staggering cost – it is estimated that more than 500 Chinese and Pakistani road workers died during construction, which lasted some 20 years. When the KKH was opened in 1986, remote villages where little had changed in centuries were connected with the external world for the first time.

On the Pakistani side, the KKH starts in Hassan Abdal—a town located about 45 kilometers from Islamabad on the Islamabad-Peshawar Highway, runs along the Indus river for about 310 kilometers, and winds around the foot of Nanga Parbat (the ninth highest mountain in the world) before leaving the Indus River to pass through Gilgit, Nagar, and Hunza on its way to the border with China. It then crosses the Pakistan-China border through the Khunjerab Pass at an altitude of 4,693 meters (15,400ft), making it the highest paved road in the world. It then enters the high Central Asian plateau before winding down through the Pamirs to Kashgar, at the western edge of the Taklamakan Desert.



Trucks on the KKH near Karimabad, 2008.



Pony trek near Hindi: Picture taken by Larimer in 1939

Travel times are long and uncertain, as sharp turns slow travel, rock slides (such as the massive Attaabad landslide early in 2010) and snow avalanches block the road, and routes hugging cliffs with precipitous drops pose significant risks. Sustaining transport links is a major challenge, but the KKH has had an undeniably dramatic effect on connectivity. For example, the trip from Hunza to Gilgit now takes about 3 hours, when it once required 3 days on foot or pack animal. This means people can connect with markets and access public services, beginning to overcome the challenging geography of the region.

Source: *The Karakoram Highway: The Impact of Road Construction on Mountain Societies* by Hermann Kreutzmann.

6.61 It should be noted that the highly mountainous terrain of GB complicates comparisons of these indicators, however, since the sparse and scattered nature of the population inevitably demands more road

length to serve a smaller number of people. Hence, while the ‘supply’ data noted above provide a useful indication of access, the picture on connectivity would be substantially clarified if the information base could be augmented with data on usage, in terms of number of vehicles or amount of freight moved along the road corridors. Overall, given the small population and comparatively high cost of construction in a very difficult topography, GB generally has a remarkable network of roads, benefiting from geopolitical considerations and its position linking to China and that country’s efforts to accelerate development in its western provinces bordering GB.

### ***Transport Services***

6.62 The lower road density in GB translates into lagging access to transportation services (Table 6.8). In particular, 43 percent of the rural population does not have access to all weather motorable roads, and 69 percent do not have paved access. GB fares better in terms of average distance to a bus/wagon stop, however, stemming largely from the prevalence of jeep service in rural areas, a unique feature of GB.

**Table 6.8. Access to Transport and Service Availability in Rural Pakistan**

	<b>Proportion of rural population without all-weather motorable access (%)</b>	<b>Proportion of rural population without motorable access (%)</b>	<b>Proportion of rural population without paved access (%)</b>	<b>Proportion of rural population without bus/wagon stop within village (%)</b>	<b>Average distance to bus/wagon stop for rural population without stops within village (km)</b>
Pakistan	15	9	32	31	8.2
GB	43	16	69	31	4.9 to 1.5
Balochistan	28	14	73	26	30.9
NWFP	20	14	32	38	5.7
Sindh	16	14	37	17	4.1
Punjab	9	5	24	34	3.8

*Note:* This data pertains to rural jeep service stops unique to GB mountain villages only.

*Source:* Balochistan Economic Report - WB.

6.63 Both the public and private sector players are involved in the provision of transport services in GB. Accounting for about a third of the total assets held by the private sector in GB, the transport sector is estimated to account for the largest part of the private sector by asset value (mainly vehicles).<sup>137</sup> Verifiable records on the total number of vehicles in GB are not available, however, mainly due to the presence of some 2,200 unregistered vehicles—mostly cars, jeeps, 4WD, and minivans.

6.64 The Northern Areas Transport Corporation (NATCO), a public enterprise owned by the federal government, is the main provider of transportation services. It has been in operation since 1974 with a mandate to provide reliable passenger and cargo transport services in GB at subsidized rates. The company is managed by a Board of Directors chaired by the Chief Secretary of GB.<sup>138</sup> It holds roughly a 50 percent share of the total transport business in the region, though private sector operators reckon

<sup>137</sup> Report on private sector by IUCN and P&D Department, GB.

<sup>138</sup> NATCO has an authorized capital of Rs. 500 million and a paid up capital of Rs. 260 million. In March 2008, the company held assets worth Rs. 564 million. The company employs 717 workers, of which 580 are in traffic operations.

NATCO's share is smaller, around 30 percent.<sup>139</sup> Either estimate still makes NATCO the largest and the most powerful player in the GB transport sector.

6.65 NATCO operates a large fleet of three hundred vehicles, including 160 passenger vehicles, 70 Hino buses, and 24 minibuses. The company has a diversified route plan and operates in all parts of Pakistan. Within GB, NATCO services reach remote areas such as Kargill, Siachin, and the Shamshal valley. Since the opening of the Kunjerab pass in 1986, NATCO has also been the only operator from Pakistan permitted to provide transport services to China and on to some Central Asian Republics through the GB corridor. Private operators are excluded mainly in order to meet China's concerns about ensuring close control of entry and cross-border trade procedures.

6.66 In cargo services, NATCO plays a very important role. The prime responsibility of NATCO is to ship wheat and other essential commodities from other parts of the country to GB. Since the primary motive for the cargo service is to provide basic goods to the whole population, the government uses NATCO in order to ensure that shipments reach their intended destinations. Thus far, NATCO's role in the transport of basic items seems have worked well, and no wheat or flour shortages have been evident in GB, even when the rest of Pakistan faced acute shortages.

6.67 The Pakistan Tourism Development Corporation (PTDC) is also an important player in the transport sector of GB. The corporation operates passenger buses and provides services to tourists traveling to GB from other parts of Pakistan. The PTDC is also allowed to operate to border cities in China as per a special agreement between the two countries.

6.68 Private sector transport is estimated to account for 30 to 50 percent of the total transport business of GB. While there are a few large companies which operate fleets of vehicles in both the passenger and cargo segments, a large share of private sector transport is comprised of small operators with one or two vehicles serving mainly secondary routes. It is challenging for private sector entities to compete with NATCO, which is able to deploy more suitable vehicles in tough road conditions, and the GoP's logo on the NATCO fleet instills confidence to bridge divisions. The quality of service provision is comparable between the two sectors.

### ***The Aviation Sector***

6.69 Air transport has played a key role in diversifying access options in GB, particularly when roads are blocked by rock slides and snow. Aviation has been especially important in shrinking time and distance, facilitating fast and easy movement of local passengers and tourists alike. But unlike other landlocked mountainous countries, such as Nepal, the potential of air transportation to help reduce internal and external isolation has yet to be fully exploited. At present, the aviation sector in GB suffers from restrictive regulations, inadequate infrastructure, and unreliable operations.

6.70 Currently, the Civil Aviation Authority (CAA)—the national aviation regulatory body—operates two airports in GB, in Gilgit and Skardu. These airports are served exclusively by Pakistan International Airlines (PIA), which operates daily flights to GB from Islamabad. Gilgit is served by a two propeller ATR 42 plane, while Skardu is served by a Boeing jet (Table 6.9). While the introduction of the ATR 42 has significantly improved flight services to Gilgit, flights to both Skardu and Gilgit depend on fickle weather conditions, leading to frequent cancellations. The CAA Board of Directors recently approved a draft National Aviation Policy (NAP), which is currently awaiting approval from the Federal Cabinet. The

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<sup>139</sup> They further claim that excluding the route of Rawalpindi, the share of NATCO would drop to only 15 percent.

aim is to improve transport services in GB by opening the sector to competition, including the possibility of permitting international flights directly to the local airports of GB.

**Table 6.9. Traffic Flows at Gilgit and Skardu Airport**

	Commercial Aircraft Movements (No.)		Non Commercial Aircraft Movements (No.)		Total Number of Passengers	
	2005-06	2006-07	2005-06	2006-07	2005-06	2006-07
Gilgit	796	660	484	336	29,831	35,863
Skardu	418	426	495	876	41,588	34,914

*Source: Civil Aviation Authority Pakistan Statistics*

6.71 Procedures at the two airports in GB are currently based on Visual Flight Rules (VFR), requiring good weather and at least some breaks in any cloud cover. This leads to frequent cancellations, impeding about 40 percent of the scheduled flights in 2008 and 2009. Ensuring reliable, all weather air transportation necessitates the use of Instrument Flight Rules (IFR), meaning visual guidance at the takeoff, landing and climbing stages, and reliance solely on navigational aids during the en-route and descend phases of the flight. Moving to IFR will be challenging, more so for Gilgit. The primary challenge in both airports is the descent and approach, but this is compounded in Gilgit by lack of expansion potential (due to its peculiar location, originally constructed for defense purposes), and insufficient space in a tight valley for an adequate turning radius required by aircraft safety regulations for propeller aircraft. In contrast, Skardu airport has the potential to be upgraded to a category IV international airport. It has a newly constructed 12,000-ft second runway that meets the requirements for Airbus jets. The Skardu valley is 40 km long and 10 km wide, which also supports the installation of modern landing equipment for all-weather operations.

6.72 Another mode of air transportation in mountainous terrains is the helicopter. Unlike in Nepal, no scheduled helicopter service is operated for civilian purposes. The use of choppers by the military is common, however, and the AKDN also operates helicopters non-commercially in GB. The main operational advantages of helicopters over fixed-wing aircraft are increased reliability and their minimal infrastructure requirements. GB has only two operational airports, but a much larger number of heliports/helipads, albeit of varying quality. In general, the savings brought about by the helicopter's low infrastructure requirements are offset by much higher operating costs (measured per seat- or ton-kilometer), and very few scheduled helicopter services are in operation around the world.

## Key Challenges

### *Limited Cost Recovery*

6.73 The high expense of infrastructure development coupled with low economic density weakens the economic rationale for investing in the transport sector. In general, the sector is characterized by a high cost to put in roads and acquire vehicles, but relatively low costs for each trip thereafter, in terms of fuel and operations and maintenance. The cost-benefit assessment then hinges on spreading fixed costs across as many users as possible (until high levels of congestion bring additional costs). In GB, this sort of calculation is unfavorable, and even meeting the marginal costs of transport services is difficult because of low demand. According to NATCO, out of the 48 routes they operate, 31 would not be commercially viable for the private sector. Transport operations in mountainous areas generally require higher fuel and maintenance costs. Frequent landslides, snowfall and severe weather conditions disrupt services (as also in the case of air travel). Most of the KKH is open throughout the year (except the Kunjerab pass to



China which closes in winter, and now the portion of the KKH north of the Attaabad landslide), but a large number of district roads in remoter valleys close due to snowfall for several months in the winter. Finally, the demand for transport is highly seasonal, with passenger numbers falling drastically in winter and increasing during summer. Overall, this means that substantial public sector involvement is needed if much of the currently available services are to be provided, and NATCO is only able to sustain operations with public financial support.

### Box 6.5. Upgrading the Karakorum Highway

Beyond the immediate need to rebuild the KKH link across the Attaabad landslide zone north to China, two projects are underway to upgrade the KKH. The first involves developing an alternative route aimed at shortening the travel time between Islamabad and Gilgit by about two hours (the new section through Mansehra-Naran-Jalkhad-Chilas is about 240 km in length). The second initiative is a US\$510 million project to upgrade the 335 km section of the KKH from Raikot (south of Gilgit) to Khunjerab Pass. This was awarded to a Chinese contractor in 2008 on turnkey basis, and includes a tunnel 480 meters long, 18 open-cut tunnels with an overall length of 1975 meters, 32 new bridges, and 27 improvement works on bridges along with 1050 new culverts for better drainage. The width of the paved road is to be widened from 6.1 to 7.5 meters, enabling 2 full lanes for heavy trailer truck operations. The overall road width is being extended to 10.1 meters, and several protective structures are to be built in order to improve safety and mitigate the risks associated with mud flows, avalanches, and landslides. The project aims to make the highway functional during all weather conditions, although given the geographical challenges and the cost implications, the standards may not be fully comparable to other parts of the country. Both will significantly enhance connectivity along the main corridor of economic activity in GB when they are completed sometime in 2012-13. As mentioned above, it is also worth noting that the construction of the Diamer-Basha hydropower project would submerge a section of the KKH that would require the construction of a higher route about 147 km long, adding to the expense of the proposed dam.



Source: The National Highway Authority (NHA) of Pakistan, GB Regional Office, Gilgit.

6.74 Given these circumstances, most of the large infrastructure developments, such as the construction and widening of the KKH (Box 6.5), the two local airports, and the road networks, have been justified by a mix of rationales. No doubt, connectivity is essential for accessing economic opportunity and public services, and equity considerations call for investments to help offset long distances and travel times in GB (as noted in Figure 3.2 above, the time needed to travel to cities of over 100,000 people often exceeds 24 hours in GB – with the closure of the KKH due to the Attaabad landslide, this time is stretched to the point of becoming prohibitive). Still, the argument leans heavily on other motivations, including supporting broader economic development (for example, the widening and restoration of the KKH seeks to facilitate trade between China and the rest of Pakistan), building national cohesiveness, and addressing security concerns. While the analytical framework of economic geography emphasizes the importance of connecting poor people to prospering places, expanding transportation infrastructure is only one of several possible policy tools, and the authorities need to continually weigh the alternatives, determining an appropriate mix between investing in immovable assets, such as roads, and mobile ones, like human capital.

### ***Limited Regional Integration***

6.75 Two divisions, impeding the flow of people and economic activity, also warrant special mention. The first concerns transportation services to China (even once the KKH has been restored). The second relates to air travel from the rest of the world to Skardu. Currently, private transport operators are not permitted to cross into China and provide services to Kashgar—the first major city on the other side of the border in Xingjian. Only state owned enterprises, NATCO and PTDC, have access, ostensibly motivated by the Chinese government’s desire to maintain strict border entry procedures. In addition, as elaborated in the trade section in the previous chapter, any NATCO truck traveling to Kashgar must return empty, with the same applying to Chinese trucks moving goods within Pakistan. Both measures undermine competitiveness and income earning opportunities. In particular, private operators are unable to benefit from the intended regional integration with western China. This goal is further hampered by the return empty restriction, which means that very little is transported in either country by drivers from across the border, blocking possible gains from trucking companies helping to establish commercial linkages. A second area of division is the lack of direct international access to Skardu, the gateway for many trekking and mountain climbing expeditions attracted by some of the world’s highest peaks (including K2). When security concerns arise in Islamabad it unduly harms tourist arrivals in Skardu. This could be addressed by an initiative to open the Skardu airport to direct arrivals from abroad, and permit the processing of visas and climbing permits in the city.

### ***Public Administration and Key Policy Issues***

6.76 *Roads.* Currently, the Public Works Department is responsible for implementing road works (except for mega-projects like the KKH which depend on outside resources), employing about 160 technical staff and 5,830 non-technical staff in 2008. The main challenges the agency faces in seeking to improve road services include: the absence of a holistic transport development vision and clear sector policy; the limitations of top-down planning with inadequate implementation capacity; the lack of standards for engineering, construction and maintenance management; the small number of private sector contractors; and the low level of funding for projects, discouraging the employment of modern engineering practices. No data are currently available on the maintenance of the district road network, and annual allocations for the purpose are guided either by visual inspections or by political influence. The agency uses both force account operations and contract works for network development and maintenance. Most of the maintenance works are labor intensive, and mechanized construction techniques are applied only to a limited extent for upgrading mountain tracks and shingle roads.

6.77 The key challenge for the PWD is to maintain a strong focus on the preservation of road assets while also investing in the development of new roads. Due to the destructive nature of slope and drainage processes along the mountainous tracks in GB, a major financial and technical commitment to road maintenance is essential to preserving the existing network. There is an immediate need to establish institutional partnership arrangements with the National Highway Authority (NHA), enabling knowledge sharing on the technical level as well as on how best to engage the private sector. Such arrangements would represent meaningful steps towards encouraging the private sector to participate more actively in projects.

6.78 *Transport Services.* Several issues need to be addressed in order to improve the provision of transportation services by both the public and private sectors. The Road Transport Authority (RTA) is responsible for issuing permits to operate different routes and determining associated fares. Private operators suggest that NATCO has undue influence over the RTA and that all the profitable routes have been allotted to NATCO. Moreover, the RTA sometimes makes ad hoc changes to the approved fares on routes operated by private sector entities, directly affecting their viability. In a recent fare change, the RTA reduced the fare on the Gilgit-Skardu route (about 260 km) from Rs 260 to Rs 125—when even the initial fare was not sufficient to cover operational costs. While NATCO is able to withstand such drastic changes in fares by cross-subsidizing its operations with the revenues from its profitable routes and by otherwise using public funds, private sector operators have great difficulty in sustaining their operations. At the same time, stakeholders note that NATCO does not enjoy sufficient autonomy in operational matters to improve performance, and service levels are low. Substantial policy changes will be needed to address these issues.

6.79 *Aviation.* Once approved, the draft National Aviation Policy (NAP) of Pakistan will provide an overarching policy framework for air transportation in GB. A key provision in the revised NAP is that all domestic airlines are to start operations to at least one secondary airport (Gilgit and Skardu fall into this category) within three years of starting operations. In order to facilitate this expansion of coverage, private airlines are to receive financial incentives including exemptions from government taxes on air tickets and aviation fuel for travel to and from secondary airports. Landing and housing fees would also be waived at secondary airports. The ramifications of such policies for GB, as well as for the goal of efficient and competitive domestic aviation services in Pakistan more widely, need to be reviewed further.

6.80 Alongside improving the prospects for new entrants, infrastructural and other policy bottlenecks need to be removed in order to improve aviation services for domestic and foreign passengers. New navigation systems will be essential to reduce the costs associated with uncertain air travel, including cancellations and aborting trips halfway when it turns out that weather conditions are unfavorable. Several options are under consideration to help boost the flow of tourists. International air transport services from Gilgit and Skardu airports could be initiated, with PIA as well as Chinese and Nepali carriers starting international passenger and cargo operations from Kashghar (China), and Kathmandu (Nepal). Short-haul flight connections between Gilgit and Skardu and other potential local airports within GB could be established. Finally, the authorities could explore options to establish international aviation operations at the new customs and international container terminal at Sust, which provides an excellent location and opportunity to support aviation infrastructure. Such initiatives will be important to getting the most out of aviation in support of development in GB.

### ***Fiscal Management of the GB Annual Development Plan (ADP) in Transport***

6.81 Good budget planning, execution, and audits are also critical to ensuring effective public sector engagement in the provision of transport services, and numerous challenges need to be addressed. Spending on transport and communications is highly volatile, and there has been a proliferation of new

projects added to the portfolio (Table 6.10). The number of new projects shrunk from 84 in 1999 to 50 in 2003, growing to 212 in 2008 and then dropping again to 180 in 2009. The value of projects (transport and communication lumped together) included in the 2009 ADP amounts to about Rs. 5.97 billion, which at the current level of funding (assuming budgets are fully released and no new projects are added) will require about 2.14 years to implement. There is a shortage of funding each year in the annual allocation, sustaining the throw-forward. The frequent delays in the completion of development projects inevitably results in substantial increases in completion costs and diluted economic benefits from the investments. In addition, an overstretched portfolio often leads to the abandonment of projects and leaves little fiscal space for new high priority schemes. The portfolio needs to be scrutinized carefully and the authorities are urged to resist an apparent bias towards capital investment, and avoid starting any new projects until the throw-forward is brought to more manageable levels. Adopting a sound Medium Term Budgetary Framework would be very useful tool in this regard.

**Table 6.10. Public Expenditure for Transport and Communication, 1998-2009, (Rs. Million)**

Fiscal Year (FY)	Portfolio Cost	Portfolio (% change)	Expenditure brought forward	Annual allocation	Annual allocation (% change)	Expenditure throw-forward [6=1-3-4]	Ratio of throw-forward [7=6/4]	Cost overrun/new schemes [8=1-6]	Ratio of cost overrun/new schemes [9=8/4]	Total No. of schemes in the ADP
	1	2	3	4	5	6	7	8	9	10
1998/99	1,812	-	941	183	-	688	3.76	-	-	84
1999/00	1,661	-8.4%	963	208	13.9%	489	2.35	973	4.67	78
2000/01	1,237	-25.5%	757	237	13.8%	243	1.02	748	3.15	53
2001/02	1,413	14.2%	901	321	35.4%	191	0.60	1,171	3.64	51
2002/03	1,388	-1.8%	810	269	-16.3%	309	1.15	1,197	4.45	50
2003/04	3,908	181.5%	1,897	685	154.7%	1,326	1.94	3,598	5.26	87
2004/05	4,143	6.0%	2,287	602	-12.1%	1,254	2.08	2,816	4.68	101
2005/06	2,790	-32.6%	889	266	-55.9%	1,636	6.16	1,537	5.79	145
2006/07	4,704	68.6%	1,236	881	231.9%	2,587	2.94	3,068	3.48	201
2007/08	6,444	37.0%	1,564	1,083	22.9%	3,797	3.51	3,856	3.56	212
2008/09	5,972	-7.3%	2,098	1,233	13.8%	2,641	2.14	2,175	1.76	180

6.82 Spending on maintenance has been inadequate. Expenditure was doubled to about Rs. 270 million in 2008-09 from the previous year, but this still only represents about 25 percent of investment spending. This, when the cost of preserving and maintaining the stock of infrastructure assets is especially high in mountainous and difficult terrain, threatening the sustainability of the entire network.

6.83 Underfunded maintenance is partly the result of inadequate resource mobilization or cost recovery from users of transportation services. There are no taxes and levies on the use of road and bridge networks in GB, and the motor vehicle registration fees collected by the RTA are not linked to maintenance. Funding is currently drawn from federal resources through a single budget item for Transport and Communication in the ADP. This makes it harder for policy makers to resist new projects and schemes crowding out more maintenance expenditure. There is a need to establish links between



road users and service providers, and develop alternative financing arrangements to ensure that maintenance is funded on a timely and sustainable basis. A starting point could be to levy a fee on bridges and strategic road segments with higher volumes of traffic, and engaging communities in directly maintaining the district roads that connect their villages and towns.

## **Looking Ahead: Policy Implications and Recommendations**

6.84 The transport sector plays a key role in connecting poor people to prosperous places, and is essential for greater integration between GB and the rest of Pakistan as well as the outside world. Beyond responding to the natural disaster of the Attaabad landslide and restoring the KKH link north of Hunza, the authorities may wish to consider actions aimed at strengthening the institutional underpinnings of planning and management in the sector, improving road maintenance and enabling more private sector participation, and boosting aviation activity.

### ***Improving Planning and Administrative Practices in the Transport Sector***

6.85 Capacity remains a major constraint, and the NHA is to set up a training institute in Gilgit, aiming to foster the development of the GB Communication and Works Department along the same professional lines as the NHA. Together with the heightened activities surrounding the KKH improvement projects, this represents an opportunity to jump start a good training and skill development program in roads. Increasing capacity covering all aspects of transportation will be critical to strengthening planning and management.

- **For immediate action:** Provide training and skill development to available staff, and enhance incentives to promote retention of trained professionals by establishing appropriate standards, systems and procedures.
- **For Pursuit over the medium-term:** Create a dedicated section within the GoGB that can strengthen the management of transport sector assets, improve monitoring, and strategize the public sector role in the transport sector.

### ***Roads and Road Transport***

6.86 Broadening the base of road networks and increasing choices in road transport services are crucial to facilitating accessibility and mobility of goods and services within GB and with the outside world.

- **For immediate action:** Prepare a Road Transport Master Plan for GB to guide the development of ground transportation over the next 10-years. The Master Plan should take the form of an integrated Accessibility Improvement Plan for each district. Among other short term measures, address issues of road and public transport maintenance (and upgrading the key road segments such as the road between Gilgit and Skardu) by increasing the allocation for recurrent expenditure in the sector, and channeling the fees collected through the RTA to maintaining and improving the road network of GB. Facilitate the functioning of the private sector by bringing more transparency and inclusiveness (such as including the representatives of private operators) in decision making on route permits and fares.
- **For pursuit over the medium-term:** Emphasize basic access to roads and transport for all and guide the expansion of paved roads beyond a district core network only under the strict criteria of sustainability and full maintenance. The road network should follow a

spine and lateral approach with core roads acting as spines, complemented with lateral extensions, short link roads and all-weather tracks providing reasonable access to more sparsely populated areas. Facilitate the expansion of the private sector by gradually allowing private operators to operate into China in competition with NATCO.

### *Aviation Sector*

6.87 Enhancing the scope of air transportation services and bringing more reliability are essential to increasing the social and economic dividends from aviation.

- **For immediate action:** Prepare a GB Aviation Master Plan with the support of the CAA to guide the development of the aviation sector. Assess the technical and economic feasibility of introducing small private airlines, including helicopter services, along the lines of Nepal's aviation model offering domestic freight and passenger services by air to remote mountain locations.
- **For pursuit over the medium-term:** Upgrade the existing infrastructure by establishing a new all-weather international airport at Gilgit and upgrading the status of Skardu airport to an international IFR airport. Facilitate international operations to GB with a special focus on strengthening tourism by seeking international passenger and cargo operations from alternate hubs in Kashgar (China) and Kathmandu (Nepal) by PIA as well as Chinese and Nepali airlines. Explore the option of creating international aviation infrastructure at the newly created International Container Terminal at Sost.

## **6.5. Concluding Comments – Getting the Most from Infrastructure Investment**

6.88 Public investments in irrigation, transport and energy are central to lowering cost disincentives and boosting productivity in the private sector. The aim of underpinning growth and expanding employment opportunities calls for policy initiatives in three key areas: First, sustaining and investing in connective infrastructure such as transport networks is essential to promoting the fluidity of factors of production and products within the region as well as with the rest of Pakistan. The impacts of limited connectivity are currently felt across all the key sectors of potential growth, including high value agriculture, minerals, tourism, and trade. Insufficient commercialization and high wastage in agriculture, underdeveloped mineral extraction industries, limited flows of domestic and foreign tourists, and high costs of transport impinging on cross border trade with China, all reflect, in part, the challenges of creating and maintaining adequate connective infrastructure. Besides easing some of these constraints, public investments in roads and transport networks will also improve access to key public services (such as health and education), where long distances coupled with limited transportation options discourage mobility of local people to the existing facilities.

6.89 Second, ensuring the availability of energy for industrial and commercial use at the local level is a high priority to boost productivity and private sector led growth. Absent an adequate supply of energy, local enterprises pursue individual solutions such as generators, which add to their operating costs. Even the Sost Dry port, which handles all logistics across the Pakistan-China border, relies on a generator to provide electricity regularly. In other instances, the lack of energy discourages the deployment of technologies necessary for enhancing productivity. Limited mechanization in minerals and inadequate processing and post harvest storage of agricultural produce are manifestations of the constraints posed by low energy availability. Improving access to energy, therefore, is essential to facilitate the growth of the private sector and boost the productivity of other key public services, such as, health, sanitation, waste management, and irrigation, where the scope for using modern equipment is high.

6.90 Finally, developing mega projects, such as the Diamer-Bhasha dam, and the improvement/restoration of the KKH, which are beyond the scope of the GoGB alone due to their massive cost, nevertheless are crucial from the standpoint of directly creating employment and altering the conditions for private sector growth in GB in a fundamental way. While the investment in these large scale infrastructure projects is difficult to justify solely on the grounds of their potential socioeconomic impacts on the local economy and populace, they are essential to meet challenges and seize opportunities at the national level, such as addressing the worsening energy crisis in Pakistan and strengthening trade and diplomatic ties with China and the Central Asian Republics. The development of mega projects and their high potential to generate public revenues also creates scope to reduce the fiscal dependence of GB on federal resources.

## **7 Following Through on Policy Options**

### **7.1. Introduction**

7.1 The foregoing chapters outline an extensive list of desirable policy options. Identifying such a broad range of possible initiatives runs the risk of being overly ambitious in terms of what can actually be implemented. However, substantial effort has been made to focus on options that appear both feasible and meaningful, especially those for immediate action. This chapter discusses some of the key prerequisites and factors that will be important in following through, including strengthening public administration, leveraging CSOs and the high levels of social capital present in GB, getting more from public spending, and seeking sustained and steady attention from all stakeholders.

### **7.2. Strengthening Public Administration**

7.2 The Empowerment and Self-Governance Order 2009 is a step forward in the direction of enhancing local empowerment and strengthening accountability in GB. While deeper reforms such as granting full provincial status still remains an important milestone for the region, the gradient of development in the short- to medium-term will hinge on the GoGB's ability to anchor the recent ESGO reforms into something clear and meaningful on the ground. To this end, enhancing the capacity of both the legislative and executive branches of the GoGB, increasing access to information to facilitate greater monitoring, and focusing on increasing local authority will be essential to enhancing local accountability.

7.3 New governance arrangements in GB are placing greater demands on legislators and administrators, and capacity constraints may limit their ability to play the greater role and carry the heightened responsibility expected. For example, the ESGO authorizes the GBLA to legislate on 80 items and expects the assembly to debate and vote on the Annual Budget of GB. Similarly, it is envisaged that new departments be created from the existing ones, accountable for more focused and specialized functions. Elevated capacity is needed if these steps towards greater devolution are to contribute towards better outcomes. The capacity of legislators can be enhanced through sensitization and training programs in planning, prioritizing and following through on the legislative agenda. Another technical input could be the preparation of issue based papers particularly those surrounding budget, local taxation, and fiscal space.

7.4 Capacity for effective administration could be increased, by finding ways to incentivize longer tenure of administrators coming to GB from other provinces, running more formal local training programs, and implementing the Public Service Commission for GB. A crucial input in this regard would be advisory and training support in devising and implementing a transparent and merit-based recruitment process for the proposed Public Service Commission. At the sectoral levels, the strengthening of public administration would also require establishing or reorganizing existing institutional structures (for example, setting up a focal agency for SP and creating a WSS directorate), preparing strategic plans (such as a Road Transport and Aviation Master Plan for GB), and strengthening human resources (including hiring, training and retaining staff in the key social sectors).

7.5 Generating more information and increasing access remains vital to amplify the voice of local constituencies, strengthen accountability, and track results. The authorities need to take actions to publicize official data (such as the Pakistan Census and the 2007-08 PSLM), which already cover GB at the data collection stages. In other instances, where GB is not included at the data collection effort (such as Labor Force Surveys, Investment Climate Surveys, Doing Business Surveys), the GoGB can take the lead in encouraging its concerned agencies or other relevant other parties to expand their coverage.

Access to information initiatives could also cover the activities of the GBLA and the executive branch (departments).

7.6 Finally, a continued focus on expanding local authority, both legislative and administrative, is needed to ensure a trajectory that realizes the spirit of the ESGO. While it is too soon to assess the outcome of ESGO, various provisions leave scope for authority to be delegated to the GoGB or concentrated with the GoP. The actual course will depend on how the relationship between the GoGB (including the GBLA and the Cabinet) and the GB Council / KAGB evolves, enabling locally elected authorities gradually to take the lead. The designation of the Chief Secretary of GB as the Principal Accounting Officer is a significant step, for example. A subsequent measure could usefully strengthen internal monitoring, through an inspection team under the Chief Minister's office. Similarly, the oversight role of the GBLA and spending transparency could be enhanced by having the Auditor General be accountable to the GBLA through the existing Public Accounts Committee (instead of to the federally appointed Governor as proposed above).

### **7.3. Mobilizing Social Capital and Civil Society Organizations for Development**

7.7 A high level of social capital and the presence of vibrant civil society organizations (CSOs) are especially important in GB, where many communities are hard to reach. To overcome these challenges, communities in GB have historically relied on a strong tradition of collective action to promote cohesion and secure their livelihoods (Box 7.1). Over time, local communities have put their social capital to new and more sophisticated uses through evolving institutional arrangements, and the prospects of following through on several of the policy options noted at the sectoral level depend on CSO engagement. For example, the recommendation to enhance agricultural extension services, or manage the demand for irrigation water anticipates a central role for CSOs.

#### **Box 7.1. Social Capital in GB**

The value of social capital stems from the connectedness and trust between people, “yield[ing] a flow of mutually beneficial collective action, [and] contributing to the cohesiveness of people in their societies.”<sup>140</sup> The shared norms and values that incline groups to trust each other, as well as reciprocate and agree on sanctions, among other things, play an important role in facilitating development. Social scientists studying the evolution to high levels of social capital in GB suggest that it resulted from a combination of feudal roots partially underpinned by the notion of contingent community, as well as the challenging terrain.<sup>141</sup> Many societies were based on an egalitarian social structure to which all landowners belonged. Members of the landed class were entitled to be part of all decision-making processes dealing with the distribution of land, the construction and maintenance of irrigation channels, and so on. Hereditary rule of a single family or dynasty was uncommon. Every member of the in-group possessed equal rights. Geography also played an important role. The coping strategies for surviving in the harsh terrain (largely subsistence farming with short growing seasons and little specialization) was based on using kinship ties and reciprocal mechanisms for pooling labor, developing and distributing new land, managing livestock, and investing in physical infrastructure such as irrigation systems. Having to count on their own resources due to limited interaction with the outside world, the communities of GB developed more sophisticated systems and social assets than other communities that were not so mutually dependent.

7.8 Efforts to foster development in GB have led to a well developed pyramid of social capital in the region, boosting the voices of those on the ground most affected. At the base of the pyramid, there are over 1,600 broad-based village level institutions—Village and Women Organizations (V/WOs)—which

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<sup>140</sup> Pretty, Jules (2003): Social capital and connectedness: Issues and implications for agriculture, rural development and natural resource management in ACP countries.

<sup>141</sup> Geof Wood with Sofia Shakil (2006): Collective Action: The Threatened Imperative 2003.

provide a collective platform for men and women to prioritize, plan, and undertake self-managed development initiatives in social and economic sectors (Table 7.1). The formation and development of these grassroots V/WOs was catalyzed by AKRSP with human capital investment and financial help, aiming to renew traditional forms of collective action and address the rapidly transforming needs and challenges of GB. Building on the success of the V/WOs, as well as recognizing their limitations, communities have formed a new tier of local development organizations that are formal in their outlook and operate at a larger geographic and sectoral scale. Federations of V/WOs, known as Local Support Organizations (LSOs), and other locally inspired CSOs, such as the Karakoram Area Development Organization (KADO), the Naunihal Development Organization (NDO), and the Baltistan Cultural Foundation, are examples of the new intermediary institutions.

**Table 7.1. Organizations in GB<sup>142</sup>**

Villages	426
Rural households	52,914
Village Organizations	870
Women's Organizations	750
Male membership	37,882
Female membership	29,960

*Source: EDC-AKRSP, 2003.*

7.9 The existence of versatile and well nurtured social capital has been vital to undertaking various initiatives and improving development outcomes in GB. An external evaluation found that the V/WOs fostered by AKRSP over the past 25 years have been an effective mechanism for developing social capital, creating infrastructure, improving access to finance, enhancing natural resource management and building human capital.<sup>143</sup> A few examples of the effectiveness of this mode of engagement include the construction of 1,980 prioritized and self-managed productive infrastructure projects, the mobilization of over Rs. 430 million in local savings along with a cumulative micro-lending of more than Rs. 1.7 billion, the development of a large cadre of village based extension workers along with the introduction of new practices in the farm sector, and the provision of an effective forum for women to participate actively in public decision making within a culturally sensitive context.<sup>144</sup>

7.10 The growing base of grassroots institutions and their support organizations like the Aga Khan Development Network (AKDN) has also created opportunities for partnerships and public policy reforms to improve the effectiveness and outreach of development efforts in GB. Reforms in forest and wildlife policies that required a greater role of local communities in the stewardship of natural resources have led to successful models of biodiversity conservation in GB, supported by the International Union for Conservation of Nature.<sup>145</sup> Similarly, the demonstrated capacity of communities in managing small infrastructure encouraged the GoGB to implement the *Khushal Pakistan Program* through village level

<sup>142</sup> As noted, these figures are from AKRSP, which may not be consistent with data from other sources.

<sup>143</sup> World Bank (2002): *An Evaluation of the AKRSP: The Next Ascent*, The World Bank, Operations Evaluation Department, Washington, D.C.

<sup>144</sup> The total capital cost was US \$ 14 million, of which 20 percent (2.76 million) was contributed by the communities along with the full annual maintenance cost of US \$ 0.7 million. An assessment of selected projects showed an IRR of between 19 percent and 22 percent for the land development projects that constituted half of all projects.

<sup>145</sup> See Background paper *Social Capital Formation in the Northern Areas: Potential, Opportunities, Constraints, and Challenges*.

institutions rather than through contractors, ultimately leading to better identification of projects and reduced leakage of funds. In social sectors too, non-governmental providers like AKESP and AKHSP as well as the GoGB in its *Social Action Program* (SAP) have used the involvement of communities to bring greater accountability.

7.11 The presence of substantial social capital along with an active network of CSOs offers important opportunities for raising development effectiveness. There is potential for making the most of community and grass roots capabilities, for example, in enhancing agricultural extension services, managing the demand for irrigation water or building human resources in health. Community systems need to be brought into planning, implementation and management of small projects. Similarly, involving CSOs in public service provision, including the funding of CSO led projects that benefit women and the poorest of the poor has several benefits. It provides a readily available platform to service providers and policy makers to strengthen the utilization of public services, for instance, by increasing awareness among communities about crucial services such as education and health. It presents a chance to enhance accountability to clients through their increased participation in the planning and monitoring of development projects. It helps the government overcome its capacity constraints and partner with active CSOs in the delivery of key public services (especially health, education, and social protection) to increase their coverage. It is also worth noting that these arrangements do not mean a mere division of labor between government and CSO providers, but a relationship in which the comparative advantage of each actor is exploited for better synergies and efficiency.

7.12 Looking ahead, initiatives will need to make the most of community and grass roots capabilities, while ensuring that their continuing role is supported. For example, improving access to information on various government activities and departments would build on the strengths of CSOs, as well as, facilitating a bigger role for the media and investigative journalism, ultimately enhancing accountability and the effectiveness of governance. At the sectoral level, forging partnerships with CSOs (for example, engaging in joint planning and financing for the provision of WSS, or developing PPPs in health and education) could build synergies and help expand services. Greater collaboration with private sector institutions, like the Chambers of Commerce, is another example that offers the potential to improve the business climate and accelerate growth.

## **7.4. Financing Policy Options by Getting More Out of Public Resources**

7.13 Many of the policy options listed in the sectoral discussions imply substantial resource demands. The scope for raising revenues locally is limited, and the GoGB will want to seek changes to the administrative arrangements in order to enable greater local revenue generation and autonomy in spending over the medium-term. At present, it is unlikely that all of these demands can be met by attracting new and more resources from the GoP, and decision makers need to consider measures aimed at enhancing the effectiveness of spending, including reallocations. In designing reforms, the GoGB can learn from the experience of other governments within and outside Pakistan. Finally, there are several key initiatives, like the mega projects, which can only proceed if major new resources can be mobilized from the GoP.

### **Improving Expenditure Efficiency**

7.14 Substantial gains in the efficiency of spending appear attainable if the GoGB can move from a single-year to a multi-year budget framework, and from an input to an output focused budget. The federal government is already implementing a phased expansion of its Medium-Term Budget Framework (MTBF), which is expected to include all of the federal government starting 2009/10 and could include the GoGB. The overall objective of these budget reforms is to improve the quality and sustainability of

government service provision in the light of declared regional and sectoral priorities (the key benefits of such reforms are elaborated in Annex 10). On the ADP side, the effectiveness of capital expenditure can be improved by: (a) increasing the participation of beneficiaries, (b) reducing financing demands on the ADP so that resources can be concentrated in areas where there is no alternative to government provision, (c) rationalizing the portfolio of projects in the ADP so as to improve its strategic focus and reduce the throw-forward of project commitments, (d) adopting a program framework to public investment, and (e) strengthening program monitoring and evaluation to help ensure good outcomes.

7.15 These issues are evident at the sectoral level. For example, the discussion on health notes that there are insufficient numbers of health professionals, especially lady health workers, to adequately staff the present stock of health posts and clinics. Hence, existing assets are not used effectively to deliver good services, yet more capital spending continues apace serving only to make the problem more acute in the years ahead. Shifting the budget to a multi-year framework offers more scope to tie recurrent and capital spending together, increasing the likelihood that recurrent implications are adequately anticipated before embarking on capital spending.

7.16 The move towards greater autonomy in GB is a challenge for the limited capacity of GB, but also presents an opportunity to redesign budgetary procedures not only to conform better to the local conditions but also to accord with international best practices. For example, procurement and financial management reforms, following the initiatives at the national level, need to be deepened in order to reduce the scope for corruption. There are indications that capital spending is favored over recurrent in part because it brings more opportunities for illicit gains. Local accountability is also helped by strengthening the role of the auditor general, as well as the role of the GBLA in providing oversight. It is worth noting that improving budget preparation, execution and monitoring is a process, rather than an event. This means that continual effort is needed on the part of the authorities, bringing better procedures in the short-term, and superior outcomes in the medium-term. The GoGB's efforts in this regard will benefit from being linked with broader initiatives at the national level.

### **Enhancing the Efficacy of Spending through Reallocations**

7.17 The allocation of spending is ultimately a political decision, but some of the patterns of spending in GB lessen effectiveness. As discussed above in Chapter 3, there is an excessive emphasis on including new projects in the ADP, even when they cannot be adequately funded. The result is that existing projects are not completed in a timely fashion, and the stream of benefits from the investment is delayed. When this is combined with spiraling costs, the internal rate of return to public investment falls sharply. The new projects are started, and are then similarly delayed. This is manifest in the lengthy 'throw-forward,' averaging 4-5 years. The efficacy of spending would be enhanced by addressing this issue, either by reprioritizing the existing pool of projects (making some cuts), or by avoiding the inclusion of any new projects, or some combination of the two until the throw-forward is reduced to some targeted level. Hence, some reallocation seems in order, from new projects to completing existing projects.

7.18 In addition to adjusting the composition of public investment, a further reallocation appears warranted from capital towards recurrent spending. In particular, the share of spending going to operations and maintenance (O&M) is very low, and indicative of a build – neglect – rebuild cycle common in much of Pakistan. Adequately meeting O&M needs is especially important in the harsh terrain of GB, where assets otherwise erode very quickly. Another recurring theme in the sectoral analyses is that more focus is needed on capacity building, also requiring more recurrent spending. In this vein, schemes could be established to incentivize professionals with the skills needed to ensure a sound regulatory framework and provide public services, like administrators, doctors and teachers, to work in both urban centers as well as in more remote areas of GB. This could involve financial incentives,



allowances, and career benefits to lengthen their stay and improve the quality of people attracted to working in GB. CSOs could also play an important role in this effort. Over the medium-term, capacity building could be promoted with training programs involving participation in national level institutes, and potentially scholarships with bonds to work in GB for a period of time afterwards in critical areas of public administration and essential public services. Special effort will be needed to overcome gender divisions and ensure adequate capacity in areas where gender plays a central role, like in maternal and child health.

## **Seeking Additional Funding from GoP**

7.19 While many of the policy options noted at the sectoral level can potentially be accomplished through some combination of enhanced governance, continued strong engagement from CSOs, and improvements in the effectiveness of fiscal resources, several big-ticket items are only possible through major additional financing from outside GB. The widening and rerouting of the KKH, aimed at shortening travel times and improving safety, is estimated to cost around US\$1 billion, equivalent to 10 years worth of GB's total public spending in 2007/08. The cost of rebuilding the KKH and its bridges following the Attaabad landslide and inundation is not yet known, but likely to be substantial. The development of the Bunji and Diamer Basha dams carry even higher price tags. Connecting GB to the national grid, needed also in order to provide the power needed to develop the mega hydropower projects as well as evacuate the newly generated electricity, is estimated to cost another US\$400 million. Needless to say, such funds are being and need to be sourced externally. Work is well advanced on the KKH improvement project, financed and undertaken with Chinese support. A memorandum of understanding has also been signed with the government of China for a feasibility study on the proposed Bunji hydropower project. The GoP may also wish to channel support from other donors and multilateral development agencies to GB. Given the circumstances noted above, these would do well to focus on technical assistance, capacity building, and budget support. The latter would help avoid adding more projects to a long list of investments, and focus instead on accelerating the completion of key projects. Finally, there may be scope for pursuing public private partnerships as an intermediate step to attracting private sector investment into the many other areas of good potential.

## **7.5. Sustaining the Attention of all Stakeholders**

7.20 The development of GB is important not just to elevate living standards and create economic opportunities for its local people. It is also critical from the point of view of furthering Pakistan's own economic prospects and ensuring water and energy security for the country. GB is the gateway to Pakistan's regional cooperation and trade route with China and the rest of central Asia, building on historical trade links. With appropriate policy attention and enabling investments, GB can transform into an attractive trade and transit hub and support Pakistan's prosperity and development through catalyzing greater regional trade, cooperation and economic integration.

7.21 GB also has critical significance from the perspective of protecting and augmenting Pakistan's natural resource base, in particular ensuring sufficient water flows to downstream rivers and reservoirs not only for drinking water and irrigation but also for generating hydroelectricity. GB contributes most of the mean annual flow of Pakistan's largest Indus River measured upstream of Tarbela. The Indus River is the water lifeline for Pakistan and these flows need to be ensured, particularly given the increased water scarcity faced by the country. Upstream water management and conservation in GB would thus have direct benefits for the downstream plains.

7.22 GB's forestry and environmental base directly reduces the sediment load in the Indus River and leads to greater productivity of downstream water resources. This is critical for checking the silting levels of the

Tarbela Dam, and protecting its water storage capacity and hydro generation potential. On the other side, the melting of high mountain glaciers in GB due to climate change poses a threat in terms of summer flooding and winter water shortages as well as related ecological damage in downstream areas.

7.23 Major water storage and hydel generation projects are planned in the coming years, including the Bhasha and Bunji Dams in GB, demonstrating the recognized potential for power generation in these areas at a time when Pakistan is facing acute power shortages. The development of the transmission infrastructure for the downstream delivery of power generated at Bhasha will also create opportunities for linking the electricity generated through other small and medium-sized hydels in GB and Chitral to the national grid, helping reduce the national power deficit.

7.24 Pakistan's economic and energy security in this way is interconnected with developing GB's natural resource base, protecting its ecology and environment, upgrading its infrastructure, raising the level and quality of its human resources, and creating livelihood and employment opportunities for its people. These considerations argue for continued and steady attention to GB.

## **7.6. Concluding Comments**

7.25 GB faces formidable obstacles to accelerating growth and improving well-being, but there are meaningful steps that engaged stakeholders can take to help the people of GB continue defying the odds. Some measures seem feasible immediately, while others will need to await more favorable wider circumstances. If progress can be made on some of the initiatives noted above, and Pakistan returns to a stronger development path, the medium-term prospects for GB are bright.

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## **Annex 2: List of Background Papers**

### **(Available Upon Request)**

1. *Profiles of Social and Economic Indicators in Northern Areas* - Nobuo Yoshida and Tomoyuki Sho (WB).
2. *Northern Areas: Governance and Institutions* - Mehr Dad (ADB).
3. *Fiscal Management in the Northern Areas* – Hanid Mukhtar (WB).
4. *Background Paper - Private Sector Development in Northern Areas* - Sohail Younas Moghal (WB).
5. *Background Paper on Natural Resource Sectors – Agriculture, Livestock/Poultry, and Forestry for Northern Areas Economic Report* - Abdul Latif Rao (ADB).
6. *Northern Areas Mineral Sector Policy Note* - Rashid Hussain Malik (WB).
7. *A Study on Tourism Development* - Isfandyar Zaman Khan and Raffaele Gorjux (WB).
8. *Promoting Northern Areas Development through Trade Linkages* - Nihal Pitigala (WB).
9. *Sost Dry Port: Contribution to the Development of Pakistan Gilgit-Baltistan – Opportunities and Challenges* - Philippe Cabanious (WB).
10. *Social Capital Formation in the Northern Areas: Potential, Opportunities, Constraints and Challenges* - Maliha Hamid Hussein (WB).
11. *Background Paper on Social Protection in the Northern Areas* - Gul Najam Jamy (WB).
12. *Background Paper on Education for the Northern Areas Economic Report* - Sofia Shakil, Madiha Ahmad, and Safiya Aftab (WB).
13. *Health Policy Note - Northern Areas* - Inaam ul haq and Shehla Zaidi (WB).
14. *Northern Areas Economic Report - Background Note - Water Supply & Sanitation* – Nadir Abbas (WB).
15. *Northern Areas Economic Report - Background Paper on Water Sector* - Shahid Ahmad (ADB).
16. *Background Report on Northern Areas Energy Sector* - Asad Aleem (ADB).

## Annex 3: Summary Table of Recommendations

Summary Table of Recommendations		
	For Immediate Action	For Pursuit Over the Medium-term
<b>Sector:</b>	<b>Strengthening the Transformative Role of the Farm Sector</b>	
<b>Theme 1:</b>	<b>Boosting Productivity.</b> <i>Greater productivity hinges on the availability of improved planting material and animal breeds, as well as the application of better crop and livestock management practices.</i>	
	Widen the availability of high quality planting material, particularly in horticulture, by increasing the capacity of existing seed facilities (such as tissue culture of potatoes) and by strengthening the link between KARINA and NAAD for greater application of research in the field. Boost the coordination between the government, CSOs and the private sector to strengthen the delivery of extension and training programs for farmers and local service providers in crops, fruits, livestock, and forestry.	Design and implement a livestock breed improvement program through the introduction and selection of local livestock breeds (especially cattle) based on the attributes of yield and feeding requirements. Study the feasibility of establishing local animal-feed mills in the private sector. Complement the existing crop research programs of KARINA and NAAD by following participatory variety selection approaches to select cereal varieties that are adapted best to meet farmers' needs. Strengthen the technical capacity of staff and policy makers in ALF. Increase the fiscal allocation for the development of irrigation and land, applying government-CSOs partnership models.
<b>Theme 2:</b>	<b>Reducing Losses and Adding Value in ALF.</b> <i>Raising returns to farmers in ALF depends on curbing the current high-wastage rates by creating opportunities for processing, storage and other post-harvest handling processes, as well as by enhancing marketing.</i>	
	Expand the outreach of home-based apricot processing techniques through training and financial facilitation and link them to private sector SMEs like the MFPL. Allocate resources to private sector players and CSOs for research and development in processing of other fruits, vegetables, and medicinal and aromatic plants. Establish local agricultural and livestock markets in major cities of GB in order to facilitate the sale of farm inputs and outputs. Study and expand the existing pilot of milk marketing to other geographic areas, and extend the initiative to additional product markets, such as vegetables and fruits.	Study the modalities for establishing a network of privately managed special storage facilities for fruits and vegetables. Investigate an appropriate incentive structure for the private sector to establish processing and packaging facilities for ALF produce. Seek branding opportunities for GB's ALF produce by acquiring certification and standards for organic and fair trade. Link fresh and local processing of farm produce to the tourism cluster by building on the concept of health food. Explore export opportunities for GB's produce to emerging markets in China by pressing for a lowering trade barriers and by overcoming supply-side constraints in the aggregation of produce at the village and regional level to create opportunities for scale and value addition.
<b>Theme 3:</b>	<b>Strengthening the Integrity of Environmental Resources.</b> <i>Improving the state of forestry in GB requires policy actions that encourage the involvement of local communities and link conservation activities to economic incentives.</i>	
	Reorganize and strengthen GBF&WD. Community based planning and sustainable management of forests is needed that allows sustainable use of forests over the long term and controls further deforestation and degradation. Pursue models of joint forest management by establishing formal agreements between the GBF&WD and communities to increase effective participation of the latter with clear roles, responsibilities and benefit-sharing mechanisms. Build on the government-CSO partnership model to scale up ongoing reforestation projects.	Explore opportunities to link forest and biodiversity conservation activities to revenue-generating initiatives such as the CDM and eco-tourism. Strengthen the supply of fuel wood and timber alternatives to ease the pressure on natural forests. Prepare a feasibility study to re-designate selected "protected forests" as "village forests" (similar to those provided for in the Pakistan Forest Act, 1927) and delegate management responsibilities to the respective community organizations to overcome existing conflicts between local communities and the state agencies.

## Summary Table of Recommendations (Cont.)

	For Immediate Action	For Pursuit Over the Medium-term
<b>Sector:</b>	<b>Tapping Minerals</b>	
<b>Theme 1:</b>	<b>Managing the Mineral Sector.</b> <i>The effective management of the mineral sector is essential to raising its contribution to the GB economy.</i>	
	Implement the institutional recommendations of the NMP, including establishing separate licensing and exploration divisions within the Department of Mining (adequately staffed and financed), and setting up a mining safety and environment inspectorate. The divisions would aim to help catalyze mining activity, while the inspectorate would seek to improve safety and environmental practices.	Strengthen the fiscal regime by establishing a sound license auctioning process and bolstering revenue collection. Moving to license auctioning will only be feasible once more information is compiled on the geological potential. Increasing royalties will depend on raising mining productivity.
<b>Theme 2:</b>	<b>Boosting the Productivity of Small Scale Miners and Artisanal Activities.</b> <i>Small scale, artisanal mining will continue to be a major part of the sector for many years to come, and there is substantial scope for improving practices.</i>	
	Establish partnerships with CSOs to provide extension services aimed at raising the sophistication of mining techniques, improving safety measures, and mitigating environmental damage.	Incentivized by enhanced extension services, and supported by growing productivity, revise the regulatory regime for small scale operators to try and attract them into the formal sector. This will be essential to raising revenues from their present negligible levels.
<b>Theme 3:</b>	<b>Attracting Large Scale Investment.</b> <i>The mining sector will only undergo a step change to the next level through large scale activity. This entails substantial fixed costs in a highly uncertain environment. Hence, policy makers will need to improve the risk – reward balance to attract major mining interests.</i>	
	Establish a geo-data center to prepare, compile, update and make available existing data, as well as generate new data on the geology of GB. This will also be helped by creating a mineral analysis and gemstone laboratory. More detailed information at the pre-competitive stage will be important to mitigating the risks perceived by potential investors and encouraging more mineral exploration and development.	Identify a prioritized list of sites with concentrated geological potential at reasonable distances, for targeted connective infrastructure investment, both in roads and electricity for mechanization. The investment itself could then be undertaken in partnership with private entities, helping to unlock the mining potential of GB.



## Summary Table of Recommendations (Cont.)

	For Immediate Action	For Pursuit Over the Medium-term
<b>Sector:</b>	<b>Fostering Tourism</b>	
<b>Theme 1:</b>	<b>Improving Access.</b> <i>Inadequate air and road access to the region is a critical constraint to the development of tourism and the substantial investments needed to alleviate this problem may not be possible in the short run. Access could still be vastly improved, however, through gradual institutional reforms and incremental public investments.</i>	
	Implement the transport sector recommendations for improving local air services and flight reliability, including following through on the proposed all weather enhancements. This would improve the attractiveness of the region to domestic tourists on short duration trips. Improve roadside facilities to make travel by road more comfortable.	Develop a network of small airfields and small aircrafts, with Gilgit and Skardu acting as operational hubs, facilitate the use of helicopters for aviation within GB, and provide an enabling environment for the local private operators to engage in GB aviation.
<b>Theme 2:</b>	<b>Building the Tourism Product.</b> <i>Developing the potential of the tourism sector will depend on building up the product portfolio by adding niche activities to the existing attractions of mountaineering, trekking and general culture/nature-based visits. These could include health and wellness, outdoor sports such as rafting, skiing and paragliding, and other nature-related activities such as bird watching.</i>	
	Develop complementary activities at tourist sites such as dining, shopping, handicrafts/souvenirs, fishing and adventure sports. Maximize the involvement of the local community in providing services. A useful start could focus on developing an area-based pilot project in Central Hunza or Central Hunza-Nagar for a tourism / culture / environment district, using a public private partnership approach with strong community participation.	Seek to attract, train and retain the required human capital for the sector. Establish an effective hotel grading system and use it as a device to ensure quality of accommodation and to encourage owners of lower rated facilities to upgrade their properties. Encourage and stimulate the private sector to invest in the development of tourism facilities.
<b>Theme 3:</b>	<b>Enhancing Marketing.</b> <i>Even before the present rash of violence in Pakistan, GB was poorly marketed both inside the country and abroad. Positioning GB to attract more tourists when circumstances improve hinges on addressing this issue with all due haste.</i>	
	Develop a marketing “brand” for GB to try and mitigate negative perceptions, focusing on a concept such as closeness to China (instead of Afghanistan), or being on the Silk Route. Sub-brand different valleys as separate products with specificity. This could be one of the themes developed in the recommended Hunza Valley pilot project. Acceptance to the UNESCO World Heritage list would help significantly. Review and improve the Website for better branding and coordination with various other forms of media exposure.	Seek financial resources to embark on a significant marketing campaign, both within Pakistan, and abroad.

## Summary Table of Recommendations (Cont.)

	For Immediate Action	For Pursuit Over the Medium-term
<b>Sector:</b>	<b>Bolstering Trade</b>	
<b>Theme 1:</b>	<b>Creating an Enabling Environment for Trade and Investment.</b> <i>Developing an overarching policy and strategy to boost trade and investment in GB is necessary to stimulate concerted efforts on the part of all stakeholders</i>	
	Develop a trade and investment policy in close consultation with the private sector to help identify and prioritize policy actions in the trade sector.	Establish a Department of Trade and Commerce to create the capacity in the public sector needed to harness the benefits from emerging cross-border trade and investment opportunities.
<b>Theme 2:</b>	<b>Improving Trade Facilitation Through Sost and the Border.</b> <i>Improving customs and cargo handling at the Sost Dry Port and promoting the efficiency of cross border transport are essential to increase the competitiveness of the GB corridor which already faces disadvantages due to costly and unreliable freight services.</i>	
	Provide basic utilities such as electricity, water supply, and sanitation as well as ICT facilities on a priority basis to the SDP as part of an overall package for Sost town which caters to the boarding and lodging needs of traders. Use the provision of public infrastructure as a lever to elicit investment by the SDP operators in expanding storage space and providing basic handling equipment. Abolish the current bilateral restriction on the transportation of goods on the return route and allow Chinese trucks to carry Pakistani exports with the twin objective of reducing transport costs and capitalizing on the market linkage of Chinese freight forwarders to improve the marketability of exports from GB.	Raise the standard of the SDP to match other well functioning dry ports serving as Inland Container Depots or Container Freight Stations. This would entail establishing a laboratory and phytosanitary facilities, storage and consolidation/deconsolidation facilities for cargo, and initiation of the Less Than Container Load (LCL) concept to aggregate cargo from multiple importers and exporters. Investment in cargo scanning equipment and expanding the scope of financial services at the SDP will be other important considerations. Investigate the feasibility of operating the NATCO services on the GB corridor as a separate non-subsidized business unit with the eventual goal of spinning it off to the private sector. Allow new local and national private transporters to enter into the logistics sector on the GB corridor.
<b>Theme 3:</b>	<b>Exploring Avenues for Local Exports and Value Addition.</b> <i>Increasing local economic benefits from the growth in trade would greatly depend on GB's ability to export local products and identify avenues to add value to both exported and imported products.</i>	
	Include trade representatives from GB in the next round of trade negotiations with China and the CARs and seek tariff concessions and quarantine support for products of interest to the GB such as potato and dried apricot. Exempt the GB bound import consignments from additional taxation like Kohistan Development Fund and NWFP Fund. Study the costs and benefits of abolishing additional taxes like sales and income tax on import consignments which in principle are not currently applicable to GB due to its special constitutional status.	Study the feasibility and modality of establishing a geographically de-limited Free Trade Zone adjacent to the SDP to serve as a consolidation, grading, packaging, and labeling center for horticultural exports from GB as well as for performing similar value addition on the imported goods. Establish a border market at Sost or in its vicinity along the lines of similar border markets like Khorghas Bazar established by China and Kazakhstan. Identify ways to link the proposed border market to domestic and international tourism in GB to encourage sales. Set up display centers for major Pakistani and Chinese export products to draw a greater number of business visitors.

## Summary Table of Recommendations (Cont.)

	For Immediate Action	For Pursuit Over the Medium-term
<b>Sector:</b>	<b>Securing Livelihoods with Social Protection</b>	
<b>Theme 1:</b>	<b>Making existing SP Regime more effective.</b> <i>The effective use of resources is especially important in GB, given the sharp fiscal constraints and complete reliance on federal government transfers. Improvements are needed in oversight arrangements as well as all stages of SP delivery – from identification, to transfer of support, to subsequent performance auditing.</i>	
	Establish a focal agency in the GoGB entrusted with the role to lead SP policy, strategy, implementation and oversight. Build the capacity of staff in the proposed agency through training programs specifically aimed at imparting analytical skills, as well as monitoring and evaluation proficiency (this would also enable a wider assessment of the social protection programs to be undertaken).	Develop objective criteria such as proxy means testing, increase the use of formal systems to transfer funds, and track payments through regular financial and performance audits. Also look at results from the PMT based targeting tool introduced by BISP in its test phase district (concluded in October 2009). Facilitate the parallel operation of SP systems, seeking the benefits from more objectively based, ‘arms-length’ transactions while maintaining the engagement of more traditional SP mechanisms. This means allocating more resources to formal SP programs, while trying to improve the traditional systems in terms of reliability, targeting, and oversight.
<b>Theme 2:</b>	<b>Initiating the expansion of social insurance programs to cover informal workers and to offer a broader scope of products.</b> <i>Given the predominance of informal employment in GB, widening the scope and extending the coverage of social insurance arrangements is a key priority. For example, AKDN is already piloting the provision of health insurance services to poor households through LSOs at the grassroots level.</i>	
	Build on the mechanisms developed through the AKDN pilot and insights from similar experiments in other parts of the world to initiate the expansion of coverage to informal workers in underserved communities in villages and town areas.	Develop social insurance products in areas otherwise not available to people in the informal sector, such as pooling risks to agricultural assets, crops and livestock, thereby helping people cope with natural calamities. This could be done in partnership with private sector actors and CSOs.
<b>Theme 3:</b>	<b>Strengthening exit programs.</b> <i>CSOs (particularly AKDN institutions) and other grassroots community organizations are collaborating with the GoGB to design and deliver programs facilitating exit from poverty.</i>	
	Improve the targeting of such programs to reach poor, marginalized and vulnerable groups, and strengthen impact monitoring to gauge the effectiveness of such initiatives. BISP's graduation strategy may also be reviewed in order to identify possible linkages to existing exit programs being implemented by CSOs. At the same time, the BISP could benefit from looking at the successful experiences of AKDN to adopt tested interventions for its long term human development goals.	Explore avenues for increasing ADP allocations to support collaboration between the GoGB and CSOs on SP related programs. This could include revisiting the IUCN recommendation on the establishment of a NA Sustainable Development Fund, as a mechanism to engage CSOs in this area.

## Summary Table of Recommendations (Cont.)

	For Immediate Action	For Pursuit Over the Medium-term
<b>Sector:</b>	<b>Enhancing Educational Attainment</b>	
<b>Theme 1:</b>	<b>Improving Access to Education.</b> <i>Expanding the pool of educated workers will depend on increasing enrollment, with a particular emphasis on rural-urban, as well as gender disparities, and reducing dropout rates.</i>	
	Incentivize more girls' schooling by upgrading at least one co-ed primary school in each district (where there are several such co-ed primary schools) into a girls public school extended to middle and secondary level in locations serving larger catchment areas, and including boarding facilities. Fill existing vacancies of female teachers as a matter of urgency, and implement a conditional cash transfer program to increase and sustain enrollment in schools, with a special emphasis on covering girls in underserved areas like Diamer.	Provide affordable transportation and boarding facilities for secondary, college and university level students within the GB, as an integral element of expanding access to education.
<b>Theme 2:</b>	<b>Raising the Quality of Education.</b> <i>Ensuring greater quality in education, particularly at the early stages of education, is crucial to improving long term learning and employment outcomes. To this end, improving teaching content, building teachers' capacities and enhancing incentives for better performance require greater attention.</i>	
	Invest more in the professional training of teachers along with improving the teaching support materials in schools, and strengthen the assessment system to provide important feedback for improving the quality of education.	Increase accountability by enhancing the involvement of communities and parents in performance monitoring of teachers and students. Revise spending practices to increase the salaries and performance based rewards for teachers.
<b>Theme 3:</b>	<b>Enhancing the Relevance of Education to Employment Needs.</b> <i>Building the skills needed to ensure employment and underpin growth hinges on expanding vocational training, focused on the closing critical gaps.</i>	
	Increase vocational training opportunities, building on initiatives like the collaboration between the Serena Hotel and AKRSP to provide hospitality training. Such efforts could usefully be complemented by internship programs, helping to ease the transition into the work place.	Seek collaboration with and accreditation from national and international institutions of good repute to design and deliver competitive degree programs at KIU and raise the employability of graduates. Forge linkages with the private sector and key public institutions like WAPDA to design and deliver demand-oriented programs in the proposed TVE institutions.

## Summary Table of Recommendations (Cont.)

	For Immediate Action	For Pursuit Over the Medium-term
<b>Sector:</b>	<b>Improving Health Outcomes</b>	
<b>Theme 1:</b>	<b>Addressing Urgent Human Resource Needs.</b> <i>Limited human resources are a major constraint on performance, undermining the effective utilization of facilities, as well as impinging on the quality of care.</i>	
	As a matter of urgency, fill key vacant positions for doctors, nurses and LHVs by offering more attractive compensation and ensuring strong political and community support. This should be accompanied by performance-based incentives to reduce absenteeism and low productivity.	Develop a human resource strategy that emphasizes training and incentives to improve retention. This would involve training local women to expand the pool of female health staff, as well as improving the clinical skills of existing staff. Such strategies would benefit from close collaboration with agencies such as the AKHSP (Gilgit & Ghizer), the MF (Baltistan), and the Sehat Foundation (Diamer), as well as a revitalization of the Public Health Institutes in Gilgit and Skardu.
<b>Theme 2:</b>	<b>Improving the Effectiveness of Health Care Spending.</b> <i>Stronger governance requires better financial planning, greater managerial autonomy, and enhanced capacity.</i>	
	Review the public sector development budget, and where possible, reallocate funds from physical works to the operational budget, in order to ensure adequate funding for hiring additional health workers, procuring medicine, maintaining existing facilities, and bolstering the monitoring and evaluation systems through the HMIS (which will help improve policy and planning going forward).	Decentralize administrative and financial authority to the DoH and on to the district levels, in order to improve accountability, strengthen the management of staff postings, enhance control over the development budget, and shift gradually towards the preparation of district based budgets.
<b>Theme 3:</b>	<b>Augmenting Coordination of Health Care Stakeholders.</b> <i>Getting the most out of the numerous public and CSO entities active in health care and fostering good health seeking behaviors requires a high level of coordination.</i>	
	Build on the experiences of existing small-scale PPPs (including those in the treatment of tuberculosis, the Expanded Program for Immunization, and the better use of BHUs), and expand the number and scale of PPPs. Greater coordination and communication, entailing reducing service overlaps, sharing essential information and research, and strategizing jointly, will help improve health outcomes.	Consider contracting out several areas of service delivery, like (i) the provision of MCH care, NCD programs, staff trainings, and other items where the public sector faces particular challenges; ii) the delivery of services where NGOs have better outreach than the government; and iii) the creation of demand in the community. The government's role in the PPPs would be financing and oversight, while the private sector entity would provide the contracted service for the specified period. Such arrangements may also help mobilize more funding from philanthropic organizations.

## Summary Table of Recommendations (Cont.)

	For Immediate Action	For Pursuit Over the Medium-term
<b>Sector:</b>	<b>Expanding Access to Water Supply &amp; Sanitation</b>	
<b>Theme 1:</b>	<b>Improving Administrative Capacity for Better WSS Delivery.</b> <i>Effective stewardship of the WSS sector requires more data, greater monitoring and evaluation systems, and better institutional structures to coordinate on an overarching strategy.</i>	
	Create a separate directorate for the WSS in the GoGB whose role would be focused on strategic planning and coordination while the physical execution of projects will rest with the GBPWD and LG&RD. Institutionalize the monitoring function in the WSS directorate.	Prepare a strategy that puts WSS in the perspective of the overall national MDGs and development targets—a shift from the existing input oriented planning approach—and provides a common basis for planning and coordinating the efforts of various public agencies. The strategy should build on a review of the Uniform WSS Policies adopted under the Social Action Program (1992-2002). In addition, the collection of more data on WSS indicators could usefully be initiated as a part of the exercise.
<b>Theme 2:</b>	<b>Improving Fiscal Planning and Spending Practices.</b> <i>Given the scarcity of resources for investing in WSS, it is essential that spending be effective and efficient.</i>	
	Adjust the split between current and capital spending to devote more resources to recurrent and maintenance costs as well as for initiatives aimed at increasing quality assurance in existing projects. Focus any increases in spending on sanitation projects to urban areas, and explore avenues to attract additional resources from outside.	Introduce greater cost recovery in WSS projects, particularly in urban areas, and create institutional mechanisms to provide oversight and monitoring opportunities to user groups, enhancing accountability.
<b>Theme 3:</b>	<b>Building on the strengths of CSOs for greater outreach and accountability.</b> <i>Public-private partnerships should form an integral part of the WSS regime in the GB, both to overcome fiscal and technical constraints faced by the public sector and to enhance the participation and voice of the ultimate beneficiaries.</i>	
	Actively engage CSOs like WASEP, AKCSP, AKHSP, KADO and other CSOs at the formulation stage of WSS strategy.	Experiment with models of joint planning and financial resource sharing at the union council and municipality level to increase the effectiveness of public and CSO spending.
<b>Sector:</b>	<b>Extending Irrigation</b>	
<b>Theme 1:</b>	<b>Improving Water Management.</b> <i>Strengthening participatory planning and building adequate institutions for the management of water is essential in a context of growing pressure on available resources.</i>	
	Establish Water Resource Management and Development Directorates with the participation of all stakeholders.	Formulate an IWRM policy and prepare basin management plans. Increased data collection will be central to the effort.
<b>Theme 2:</b>	<b>Increasing Water Availability.</b> <i>Water availability could be augmented through the application of participatory IWRM approaches to developing the major river basins of GB.</i>	
	Manage water demand by enhancing cost recovery based on user fees (enforced by WUOs), using transparent and participatory procedures in allocating water, and building awareness about the need for water conservation and environmentally sound practices.	Seek to reduce operational losses in the existing channels by lining channels, increasing storage capacity by constructing small-scale ponds or tanks with sand filters at the farm or command levels, and managing the shortfalls in water supply in some areas by implementing water lifting schemes.
<b>Theme 3:</b>	<b>Raising the Return on Water Related Investment.</b> <i>The productivity of water is bound up in the agricultural output enabled by irrigation and in the other uses like in the home or for hydroelectricity.</i>	
	Expand the use of more advanced technologies, especially in those areas where it is feasible to recover costs through the introduction of user fees and in areas where there are no water disputes. For example, pipeline water conveyance systems enable pressurized irrigation for high valued fruits and vegetables as well as fertigation to increase agricultural yields.	Incentivize greater outlays by integrating irrigation investment with other purposes, like mini-hydroelectric power generation or water for domestic use.

## Summary Table of Recommendations (Cont.)

	For Immediate Action	For Pursuit Over the Medium-term
<b>Sector:</b>	<b>Boosting Electricity</b>	
<b>Theme 1:</b>	<b>Improving the Institutional Underpinnings of the Sector.</b> <i>There is an urgent need to better the legal underpinnings and governance of the power sector. This goal is best served by building capacity and improving several aspects of the regulatory environment. A first step would be to develop an energy policy tailored to the specific circumstances of GB.</i>	
	Undertake a professional assessment of the institutional capacity and needs of WAPD to ensure that the department has the diverse set of skills needed to manage the electricity sector of GB. Enhance enforcement of revenue collection, including by facilitating the clearance of arrears and outsourcing collection.	Formulate a self standing Energy Policy for GB, that could (i) define the roles of the public and private sectors, (ii) consolidate the applicable rules, incentives and procedures for the private investor, (iii) establish independent tariff setting and dispute resolution mechanisms, (iv) streamline the dealings between the AEDB, the NAA, and investors, (v) clarify and formalize the role of the national and GB governments in underwriting the obligations of the power purchaser, (vi) create a long term funding facility enabling banks to lend based on risk weighted terms, and (vii) change the Pakistan's baseline for carbon credits in the power sector from natural gas and hydropower to oil and coal.
<b>Theme 2:</b>	<b>Widening Access.</b> <i>The most direct way to increase hook-ups is through greater grid and generation investment, but other measures are also important, including developing alternative sources of electricity in areas that are likely to remain unreached by the grid over the medium-term, as well as enhancing conservation efforts to enable existing electricity supplies to go farther.</i>	
	In areas that are unlikely to be reached by the grid for some time, move forward on a program for developing local sources of electricity, particularly micro/mini hydro projects conforming to technical standardization and based on lessons learnt from the AKRSP model.	Implement measures aimed at conserving energy and raising efficiency by reducing technical losses, improving the management of peak demand (in part through price signals), introducing aggressive policy measures to implement performance verification, payment enforcement, theft detection and prevention, using plant capacity more effectively, and encouraging energy efficient building design. These steps could play an important role in ensuring access in the electricity shortage context facing the people of GB at different times of the year.
<b>Theme 3:</b>	<b>Accelerating Investment in the Electricity Sector and Boosting Growth.</b> <i>The combination of the staggering cost of the proposed mega-projects (necessitating funding from outside the GB) and the funding challenges presently encountered by the national government and the private sector, means that feasible progress centers mainly on positioning the GB to benefit from greater investment once circumstances improve.</i>	
	Strengthen capacity of the WPD to address technical, commercial and governance challenges in the sector, create technical and commercial departments to improve efficiency and cost recovery, and outsource metering and billing to the private sector. Prepare detailed feasibility studies for generation and transmission investments, including developing regional and national grid connections. Build on the successful experience of the WPD, especially in projects where no capacity payment is required (for example, the 18 MW Naltar IV project). Finance large hydropower projects for generation of electricity that will also be exported to the down country through the national PSDP and seek international financing.	Enhance the enabling environment for private sector participation by strengthening the regulatory regime through capacity development in the WPD (or establishment of a local regulatory authority), extending the jurisdiction of the NEPRA (the national regulatory authority) to GB once an interconnection to the national grid becomes operational, establishing a single window regulatory approval procedure, preparing standard project documents (including the implementation agreement and guarantee document with the help of PPIB), developing a prioritized database of projects under on-grid and off-grid scenarios (ranked by estimated bankability and opened for private sector investment), and improving the incentive structure with a view to offsetting some of the area specific challenges and risks. The higher rate of return used to incentivize the completion of Malakand III in NWFP at the end of 2008 is a good example.



## Summary Table of Recommendations (Cont.)

	For Immediate Action	For Pursuit Over the Medium-term
<b>Sector:</b>	<b>Connecting with Better Transportation</b>	
<b>Theme 1:</b>	<b>Improving Planning and Administrative Practices in the Transport Sector.</b> <i>Capacity remains a major constraint, and the NHA is to set up a training institute in Gilgit, aiming to foster the development of the GB Communication and Works Department along the same professional lines as the NHA. Together with the heightened activities surrounding the KKH improvement projects, this represents an opportunity to jump start a good training and skill development program in roads. Increasing capacity covering all aspects of transportation will be critical to strengthening planning and management.</i>	
	Provide training and skill development to available staff, and enhance incentives to promote retention of trained professionals by establishing appropriate standards, systems and procedures.	Create a dedicated section within the GoGB that can strengthen the management of transport sector assets, improve monitoring, and strategize the public sector role in the transport sector.
<b>Theme 2:</b>	<b>Expanding Access to Roads and Road Transport.</b> <i>Broadening the base of road networks and increasing choices in road transport services are crucial to facilitating accessibility and mobility of goods and services within the GB and with the outside world.</i>	
	Prepare a Road Transport Master Plan for GB to guide the development of ground transportation over the next 10-years. The Master Plan should take the form of an integrated Accessibility Improvement Plan for each district. Among other short term measures, address issues of road and public transport maintenance (and upgrading the key road segments such as the road between Gilgit and Skardu) by increasing the allocation for recurrent expenditure in the sector, and channeling the fees collected through the RTA to maintaining and improving the road network of GB. Facilitate the functioning of the private sector by bringing more transparency and inclusiveness (such as including the representatives of private operators) in decision making on route permits and fares.	Emphasize basic access to roads and transport for all and guide the expansion of paved roads beyond a district core network only under the strict criteria of sustainability and full maintenance. The road network should follow a spine and lateral approach with core roads acting as spines, complemented with lateral extensions, short link roads and all-weather tracks providing reasonable access to more sparsely populated areas. Facilitate the expansion of the private sector by gradually allowing private operators to operate into China in competition with NATCO.
<b>Theme 3:</b>	<b>Connecting Through Aviation.</b> <i>Enhancing the scope of air transportation services and bringing more reliability are essential to increasing the social and economic dividends from aviation.</i>	
	Prepare a GB Aviation Master Plan with the support of the CAA to guide the development of the aviation sector. Assess the technical and economic feasibility of introducing small private airlines, including helicopter services, along the lines of Nepal's aviation model offering domestic freight and passenger services by air to remote mountain locations.	Upgrade the existing infrastructure by establishing a new all-weather international airport at Gilgit and upgrading the status of Skardu airport to an international IFR airport. Facilitate international operations to GB with a special focus on strengthening tourism by seeking international passenger and cargo operations from alternate hubs in Kashgar (China) and Kathmandu (Nepal) by PIA as well as Chinese and Nepali airlines. Explore the option of creating international aviation infrastructure at the newly created International Container Terminal at Sost.



#### Annex 4: Progress on NASSD Implementation<sup>146</sup>

Key Recommendations	Progress	Comments
<b>Governance</b> <ul style="list-style-type: none"> <li>a) Review constitutional status and implement institutional reforms.</li> <li>b) Extend the decentralization process and create new institutions like a Round Table on Sustainable Development and an independent Public Service Commission.</li> <li>c) Build the capacity of government bodies and civil service personnel.</li> <li>d) Enhance transparency and accountability.</li> <li>e) Strengthen participation and political development.</li> <li>f) Introduce local taxation and revenue mobilization.</li> <li>g) Implement civil service reforms.</li> </ul>	Partial/ Significant	<p>While geopolitical considerations and constitutional ambiguity continue to hamper full political mainstreaming of the region, the promulgation of the Empowerment and Self-Governance Order in September 2009 (ESGO) represents an important step. Other milestones include the approval of the GB Rules of Business and the GB System of Financial Control and Budgeting Rules. The new governance structure is a move towards those of other provinces in Pakistan, and among other aspects, provides for: a) the appointment of a Governor; b) the election of a Chief Minister by the GBLA; c) the formation of a 15 member GB Council; d) the establishment of the Gilgit-Baltistan Supreme Appellate Court and a Supreme Judiciary Council; e) the appointment of the Auditor General of Pakistan as the Auditor General of GB; f) the appointment of a Chief Election Commissioner; g) the establishment of a Public Service Commission for GB; h) the creation of a GB Consolidated Fund; and i) the extension of Fundamental Rights to the people of Gilgit-Baltistan. These items and other governance issues are discussed in more detail in the Section 3.2 of the main report.</p>
<b>Civil Society</b> <ul style="list-style-type: none"> <li>a) Create a single Regional NGO Fund by consolidating government grants to NGO.</li> <li>b) Create a GB NGO Forum.</li> <li>c) Strengthen the capacity of the NGO sector.</li> <li>d) Enhance the financial sustainability of NGO sector by strengthening links with donors as well as exploring new funding mechanisms to include endowment funds.</li> <li>e) Promote the incorporation of environmental concerns into NGO programs and projects.</li> </ul>	Partial	<p>Except the creation/strengthening of Union of GB NGOs (UNAN) and some capacity building programs launched by institutions like AKRSP, no significant actions have been taken on other fronts.</p> <p>Key challenges include budgetary and procedural constraints faced by the government in creating an NGO fund; undefined status of the region and associated disincentives for bilaterals/multilaterals; and lack of incentive/initiatives among NGOs to work collectively.</p>

<sup>146</sup> The review was undertaken through consultations with GoGB counterparts, CSOs and other stakeholders at the end of 2008. The main change since then has been in governance, noted briefly above and discussed in more detail in the relevant section of the main report.

<p><b>Private Sector</b></p> <ul style="list-style-type: none"> <li>a) Create an enabling environment for private sector development by adopting economic policies and unambiguous regulations.</li> <li>b) Promote enterprise development by establishing a Small and Medium Enterprise Development Authority, providing financial assistance and training.</li> <li>c) Develop sectors of comparative advantage including ecotourism, forestry, horticultural products, and hydroelectricity.</li> <li>d) Increase on-farm assets by increasing irrigation and land development and related agricultural activities.</li> <li>e) Strengthen the GB Chamber of Commerce and Industries.</li> <li>f) Enhance the availability of micro-credit.</li> </ul>	<p>Partial</p>	<p>Key initiatives taken by the government include financial support to the gemstone sector (allocation of approx Rs 43 million) in lieu of training and gemstone cutting and marketing center. Discussions are underway to setup an export processing zone in Gilgit.</p> <p>Efforts to promote public private partnership are often constrained by government's fixed financial rules and regulations. The lack of a coherent policy framework to engage and support private sector is also a major hurdle. The private sector lacks organization, capacity, and initiative to advocate for pro business policies and programs.</p>
<p><b>Population</b></p> <ul style="list-style-type: none"> <li>a) Enhance awareness of population issues by undertaking a concerted communication program.</li> <li>b) Increase investment in adult literacy programs particularly for women.</li> <li>c) Expand family planning services in rural and urban areas.</li> <li>d) Reduce child mortality, for example, by expanding immunization.</li> <li>e) Raise awareness of women's health issues and reproductive health rights and improve access to reproductive health facilities.</li> <li>f) Ensure provision of safe family planning methods at Basic Health Units and private health centers.</li> <li>g) Sensitize men to the importance of family planning.</li> </ul>	<p>Partial/ Significant</p>	<p>Most of the NASSD suggestions are reflected in the priorities and programs of the relevant departments with varying degree of success. However, the outreach of these services remains a challenge.</p> <p>Cultural sensitivities and lack of education on family planning as well as the high cost implication of expanding the outreach of these services remain major obstacles.</p>
<p><b>Poverty</b></p> <ul style="list-style-type: none"> <li>a) Adopt a sustainable livelihoods approach as the principal framework to analyze poverty issues.</li> <li>b) Accord emphasis to the development of pro-poor macroeconomic policies.</li> <li>c) Develop new legislation to address access and property rights in relation to protected areas and forests.</li> <li>d) Expand social protection in order to reduce environmental vulnerability of the poor.</li> <li>e) Continue to promote broad based economic growth in GB.</li> <li>f) Design and implement rural development and income generation programs targeted at the poorest.</li> </ul>	<p>Partial/Limited</p>	<p>A collaborative initiative between the government and AKRSP 'Doorstep Employment Program' was launched to provide employment to women. The project funds (Rs. 39 million) came from government sources.</p> <p>Lack of a clear framework to address poverty (e.g. PRSP document) in GB is considered a major constraint to progress on the poverty front. The efforts of NGOs (e.g. AKRSP) are seriously constrained by insufficient finances. Lack of statistics on poverty and related indicators is another key challenge. The government has earmarked Rs. 100 million in the ADP to address this data gap.</p>

<ul style="list-style-type: none"> <li>g) Enhance regional and local governance systems in order to strengthen the poor's access to resources.</li> <li>h) Ensure that future poverty alleviation efforts build upon traditional knowledge systems and local coping strategies.</li> </ul>		
<p><b>Gender</b></p> <ul style="list-style-type: none"> <li>a) Integrate gender into the policies, programs, and projects by including gender concerns in PC1 forms, gender analysis in priority sectors, and project M&amp;E.</li> <li>b) Promote continued development, empowerment and expansion of women's organizations.</li> <li>c) Design and implement special programs to increase women's access to education, health, and other services.</li> <li>d) Build the capacity of key stakeholders to address gender issues both within the government and civil society.</li> <li>e) Promote female entrepreneurship, particularly within cottage industries.</li> <li>f) Enhance provision of credit facilities for women.</li> <li>g) Institute quotas to promote employment of women with the public sector.</li> <li>h) Extend the family laws to GB.</li> </ul>	Significant	<p>Key milestones under the theme of gender include the establishment of a separate directorate for women's development; the induction of 33% women representatives in the elected bodies; the special quotas and scholarships for girls in professional colleges; and the increasing representation of women in public sector recruitment and employment.</p> <p>Progress on other key recommendations such as mainstreaming gender in project planning and reviews is hampered by entrenched gender biases in decision making structures, lack of resources and capacity, and local cultural sensitivities.</p>
<p><b>Education</b></p> <ul style="list-style-type: none"> <li>a) Improve access to educational facilities for both girls and boys.</li> <li>b) Explore potential for creating a community managed system for schools.</li> <li>c) Increase investment in teacher training. Inclusion of environmental education in the teacher's training curriculum.</li> <li>d) Increasing investment in the development of learning material.</li> <li>e) Promote the inclusion of appropriate environmental information in text books.</li> <li>f) Extend the curriculum redevelopment process to the secondary level, with a special emphasis on environmental themes.</li> <li>g) Integrate environmental themes into literacy programs and curricular activities.</li> <li>h) Enhance teacher effectiveness by promoting the use of monitoring and evaluation mechanisms.</li> </ul>	Partial	<p>Significant progress has been made in taking up recommendations related to traditional activities, such as, the construction of new schools. Other steps include increased involvement of communities in school management through committees such as VECs and SMCs; inclusion of environmental themes in the primary syllabus and MA education curriculum at KIU.</p> <p>Poor governance and lack of financial resources emerge as key constraints limiting further progress on other fronts, particularly in instituting capacity building programs and conducting performance appraisals to improve teachers' effectiveness.</p>
<p><b>Environmental Health</b></p> <ul style="list-style-type: none"> <li>a) Immediately stop the practice of dumping sewage into the <i>Kuhl</i> system.</li> </ul>	Partial	Both government and civil society actors have shown progress in traditional domains, for instance, the provision of primary health care.

<ul style="list-style-type: none"> <li>b) Raise public awareness about environmental health issues through formal and informal education as well as the media.</li> <li>c) Promote the adoption of simple measures to reduce the occurrence of water-borne and sanitation-related diseases.</li> <li>d) Promote the adoption of basic improvements to housing design, construction and ventilation to reduce respiratory ailments.</li> <li>e) Increase public sector and NGO investment in water supplies, sewerage, solid waste management, housing and land-use planning.</li> <li>f) Accord higher priority to the provision of primary health care in the rural areas.</li> <li>g) Recruit additional health staff particularly doctors and Lady Health Visitors.</li> <li>h) Improve the existing health delivery infrastructure.</li> <li>i) Introduce new and innovative approaches to health care such as the network of barefoot doctors (as in China).</li> </ul>		<p>Some preliminary feasibility work is underway in the relevant government departments to initiate sanitation infrastructure projects in urban areas and promote hygiene education. AKHSP, WASEP and BACIP have taken lead in implementing suggestions related to housing improvements and water supply &amp; sanitation, as well as increasing public awareness.</p> <p>Insufficient financial resources have led to limited scaling up of various environmental health initiatives, particularly those initiated by the NGOs. The usual problems of limited capacity, poor governance, and lack of a clear policy are equally applicable to this theme.</p>
<p><b>Urban Environment</b></p> <ul style="list-style-type: none"> <li>a) Build the capacity of the responsible government line departments and municipal councils.</li> <li>b) Improve both the quantity and quality of water supplies by developing water supply and treatment infrastructure.</li> <li>c) Enhance urban drainage and sanitation systems by separating drainage and sewage infrastructure.</li> <li>d) Develop a comprehensive solid waste management strategy for GB.</li> <li>e) Improve urban road systems, by controlling haphazard street parking and relocating truck terminals, workshops and industries into designated areas away from urban settlements.</li> <li>f) Assess the feasibility and desirability of introducing cost recovery systems (e.g. user fees) for selected urban services.</li> </ul>	Partial	<p>Key actions taken by the government include the installation of two water testing laboratories in Skardu and Gilgit; the provision of purified water schemes; and the improvement of road infrastructure in urban centers, including the establishment of a Vegetable Mandi and a Bus Terminal in Gilgit.</p> <p>No significant progress has been made on other key recommendations pertaining to waste management, drainage and sewage improvement. Key constraints include high cost of infrastructure development, limited local cost recovery, and lack of a clear regulatory framework to enforce urban development codes.</p>
<p><b>Energy</b></p> <ul style="list-style-type: none"> <li>a) Develop and implement a comprehensive energy policy for GB. Encourage private investment through economic incentives.</li> <li>b) Establish an independent power board for the region.</li> </ul>	Partial	<p>Though GB in general and Gilgit in particular is benefiting from the routine government investment in small hydropower plants, no significant progress has been made in setting up a comprehensive energy policy or in establishing an independent power board. However, a major forthcoming initiative of the</p>

<ul style="list-style-type: none"> <li>c) Promote institutional development and capacity building with NAPWD.</li> <li>d) Design and implement a comprehensive energy conservation program.</li> <li>e) Expand hydropower facilities while accommodating environmental concerns.</li> </ul>		<p>federal government is Basha Dam whose construction is expected to start soon.</p> <p>Continued constitutional limbo limits the possibility of private investment in the sector. Budgetary constraints and limited departmental capacity are among other key hurdles.</p>
<p><b>Tourism and Cultural Heritage</b></p> <ul style="list-style-type: none"> <li>a) Create a more enabling environment for tourism development by adopting a regional tourism policy.</li> <li>b) Attract a greater share of the domestic tourist market.</li> <li>c) Enhance the capacity of GB Tourism Board.</li> <li>d) Improve communication and transportation infrastructure by upgrading roads between key tourist attractions.</li> <li>e) Develop and implement a comprehensive marketing strategy, including the creation of a website.</li> <li>f) Diversify the tourism product by promoting activities such as wildlife viewing, low altitude trekking and cultural tourism.</li> <li>g) Provide key architectural and archaeological sites with legal protection under the Pakistan Antiquities Act.</li> </ul>	Significant	<p>Concrete actions have been taken in support of the NASSD recommendations. Key milestones include the development of a tourism policy, the creation of the directorate of tourism, the creation of a website, and the establishment of a standing committee of GB Tourism Board with broad participation from public, private and civil society actors. Similarly, the airline service between Gilgit and Islamabad has improved significantly due to introduction of a new fleet.</p> <p>Actual progress in the tourism sector largely depends on the stability in the country. Procedural hurdles exist in easing the entry of international tourists from adjacent countries like China.</p>
<p><b>Agriculture</b></p> <ul style="list-style-type: none"> <li>a) Strengthen the capacity of DoA through the provision of additional funding, training and equipment.</li> <li>b) Increase the production of food crops on existing irrigated land by improving agronomic practices.</li> <li>c) Expand the area under irrigation.</li> <li>d) Reduce wastage by investing in basic storage infrastructure and promoting simple preservation techniques.</li> <li>e) Enhance livestock and fodder production as an integral part of GB agricultural systems.</li> <li>f) Expand poultry and fisheries production.</li> <li>g) Increase the availability of micro-credit.</li> </ul>	Partial	<p>Besides conducting routine extension activities, the DoA also showed some additional gains on irrigation, agricultural business, fisheries, and capacity building fronts, thanks to four major projects from Ministry of Food, Agriculture and Livestock.</p> <p>Broad-based implementation of the proposed action under NASSD requires addressing capacity constraints of staff to bring more specialization, changes in the budgetary cycle to accommodate the short agricultural season, and increasing the flow of financial resources.</p>
<p><b>Livestock and Rangelands</b></p> <ul style="list-style-type: none"> <li>a) Enhance both the quantity and the nutritional quality of fodder produced on irrigated lands.</li> <li>b) Establish fodder breeding and improvement programs.</li> </ul>	Partial/Limited	<p>Except for some routine activities under fodder improvement and two new projects aimed at improving dairy marketing and veterinary services, no major progress was made in implementing the recommendations under the Livestock and Rangelands management theme.</p>

<ul style="list-style-type: none"> <li>c) Promote the use of supplementary livestock feed.</li> <li>d) Enhance the capacity of the NAs veterinary services.</li> <li>e) Develop Community level livestock organizations concept.</li> <li>f) Introduce rotational grazing schemes.</li> <li>g) Explore mechanisms to reduce livestock grazing pressure on the GB rangelands.</li> <li>h) Investigate the extent, severity and causes of erosion and rangeland degradation.</li> <li>i) Build the range management capacity of NAFD.</li> <li>j) Enhance coordination between the range management activities of the Forest and Agriculture Department.</li> </ul>		<p>Key constraints faced by the government and civil society actors include lack of financial resources, lack of technical capacity, and insufficient leadership to drive the livestock and rangeland development agenda.</p>
<p><b>Forests</b></p> <ul style="list-style-type: none"> <li>a) Develop and enabling framework that effectively supports sustainable forest management and community participation. Implement NA forest policy, review regulations, and provide economic incentives for conservation.</li> <li>b) Promote community involvement in the management of both private and protected forests, with emphasis on joint forest management systems.</li> <li>c) Develop individual plans for all private and protected forests.</li> <li>d) Promote farm forestry.</li> <li>e) Promote institutional development, capacity building, and appropriate investment with the forest sector.</li> <li>f) Enhance forest monitoring and assessment.</li> </ul>	Partial	<p>The drafts of a forest policy and joint forest management framework have been developed and submitted for final approval. Plans for private forests have been developed and a project on farm forestry is underway.</p> <p>A major constraint is lack of capacity. The department lacks reforms and resources to create specialized capacity in key themes including natural forests, biodiversity, farm forestry, and wildlife. Bureaucratic and political hurdles also exist.</p>
<p><b>Biodiversity</b></p> <ul style="list-style-type: none"> <li>a) Document and build upon the lessons emerging from pioneering experiences of AKRSP, IUCN, WWF, and others.</li> <li>b) Establish a policy and legal framework which enables the adoption of collaborative management regimes.</li> <li>c) Promote in-situ conservation by strengthening protected areas, initiating community based conservation, and creating international peace parks.</li> <li>d) Build the biodiversity management capacity of agencies, local NGOs and community based organizations.</li> <li>e) Establish/strengthen ex-situ conservation programs with government agencies such as KARINA and DoA.</li> <li>f) Introduce economic incentives in order to</li> </ul>	Partial/ Significant	<p>Key milestones include the revision of the Wildlife Act 1975, approval of Joint Forest Management rules 2006, approval of medicinal plant rules 2005, and the notification and initial implementation of Central Karakoram National Park (CKNP). Similarly, successful models of community based biodiversity conservation are also being followed, which are generating resources to establish valley conservation funds. Two projects (MACP and Wetlands project) are currently underway.</p> <p>Progress on other key recommendations is affected by the capacity and resource constraints facing KARINA, DoA, and the Forest Department.</p>

<p>encourage conservation and sustainable use.</p> <p>g) Establish new and innovative funding mechanisms for biodiversity such as Valley Conservation Funds and regional trust funds.</p> <p>h) Enhance baseline information on NAs biodiversity.</p>		
<p><b>Water</b></p> <p>a) Create a new institutional framework for water management and development by creating a Water and Watershed Management Authority, creating a federation of Water Users Organizations at the tehsil level, and forming Area Water Boards at the district level.</p> <p>b) Prepare a Water Master Plan, aimed at addressing the multiple needs and uses of water.</p> <p>c) Promote increased participation of water users in the design, development, financing, and management of irrigation and domestic water supply.</p> <p>d) Enhance the operational management of the Kuhl system by building the capacity of Water Users Organizations.</p> <p>e) Enhance the productivity of water use, by altering field layout and by using efficient irrigation systems.</p> <p>f) Minimize water losses by ensuring that repairs to irrigation channels are undertaken regularly and storage tanks are built.</p> <p>g) Enhance the collection of meteorological data particularly in relation to snowfall and glacier dynamics.</p>	Partial/Limited	<p>Except for two initiatives aimed at reducing water losses by repairing water courses and introducing efficient irrigation systems, no major steps have been taken to follow up on the NASSD recommendations. Discussions are underway to create a Water and Sanitation Authority. A PC1 has been prepared.</p> <p>Currently, there is no dedicated government agency with a focused mandate to work exclusively on water issues. The department of Power and Water largely focuses on the electricity issues followed by domestic water supply. No dedicated resources or capacities exist that could address the water issues in a comprehensive manner.</p>
<p><b>Mineral</b></p> <p>a) Develop an effective regulatory and legal framework aimed at preventing and mitigating environmental impacts and improving the health and safety of those involved in mining.</p> <p>b) Strengthen human, technical, and financial resources. Focus on greater local value addition in the minerals sector.</p> <p>c) Investigate the potential for establishing a Gem Mining and Cutting Institute, to help build the capacity of the sector and to promote the industry.</p>	Partial	<p>Key initiatives include the establishment of a Mineral Development Secretariat and the launching of three projects aimed at supporting the capacity building and marketing activities for gemstones. Resources have been earmarked to conduct surveys to investigate minerals potential in GB.</p> <p>The existing secretariat is financed from the ADP. As a result, there is a serious dearth of capacities and resources under the minerals theme. The ambiguity on the constitutional status of the region also hampers the flow of private investment in the sector.</p>

<p><b>Implementation Mechanisms</b></p> <ul style="list-style-type: none"> <li>a) Special statistical Unit in P &amp; DD for data collection and statistical analysis.</li> <li>b) Creation of GB Roundtable on Sustainable Development.</li> <li>c) Establishment of NASSD co-ordination unit.</li> <li>d) Enhanced accountability by putting in place the efficiency and discipline rules; preparing periodic reports of their performance and programs by the Government agencies for Public access.</li> <li>e) Promote inter-sectoral co-ordination and integration by creating a single NRM section within the P &amp; DD, establishing an inter-departmental working group on sustainable development, and creating a cross-sectoral secretaries committee on sustainable development.</li> <li>f) Strengthen sectoral capacity through the design and implementation of comprehensive institutional development and capacity building initiatives.</li> <li>g) Reform the annual planning and resource allocation process by requiring the P &amp; DD to demonstrate that it has duly reflected the recommendations of the NARSD in its annual planning exercise by providing a formal mandate to NARSD to review the draft Annual Development Plan.</li> <li>h) Strengthen the environmental assessment procedures for both EIA and SEA.</li> <li>i) Develop and implement a comprehensive communication strategy in support of NASSD implementations.</li> </ul>	<p>Limited</p>	<p>No significant actions were taken to create a strong implementation mechanism for the NASSD. In particular, delays in the formation of NARSD has led to lackluster progress on other recommended actions proposed in the NASSD. Beside routine departmental capacity building programs, the only key development was the establishment of an EIA unit and a laboratory (Rs. 25 million) to support environmental assessments.</p> <p>Lack of follow up as well as limited financial resources within the P&amp;D are deemed key factors leading to limited progress. Also, political and power sharing issues played a role in slowing down progress on the formation of NARSD.</p>
<p><b>Financial Resources</b></p> <ul style="list-style-type: none"> <li>a) Sustain federal government investment in GB. Re-align the investment in accordance with NASSD objectives and priorities.</li> <li>b) Develop financial resources by strengthening the existing system for the collection of levies and users fees. Take initiative to introduce a local taxation system. Explore options for enhancing revenues such as the introduction of a tourism tax and natural resources levies.</li> <li>c) Encourage the federal government to augment GB locally raised funds through the provision of matching grants, as is the practice in the provinces.</li> <li>d) Establish a GB Sustainable Fund with contributions from local, National and International sources.</li> </ul>	<p>Partial</p>	<p>Over the last 5 years, the flow of financial resources to GB has significantly increased but their alignment to NASSD priorities still remains a challenge. A sustainability fund has been established with seed money of Rs 3 million from SDC. On the local revenue generation front, a detailed feasibility study has been conducted.</p> <p>Major hurdles in implementing NASSD recommendations include: limited progress on the establishment of NARSD, continued ambiguity about the legal and constitutional status of the region, and lack of political support for a local tax regime.</p>



<ul style="list-style-type: none"> <li>e) Continue to seek International support from both bilateral and multilateral sources.</li> <li>f) Mobilize additional support from NGO sector.</li> <li>g) Enhance the role of private sector in financing implementation by bringing the informal sector into the tax net; provide tax concessions in exchange for contributions to NASDF; apply polluters pay principles.</li> </ul>		
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## **Annex 5: Historical and Geopolitical Context of Gilgit-Baltistan**

Previously known as the Northern Areas, Gilgit-Baltistan is an extremely mountainous terrain covering a territory of 72,496 km<sup>2</sup> that borders Afghanistan Wakhan to the north, Xingjian province of China to the northeast, Indian administered Jammu and Kashmir to the southeast and Pakistani governed territory of Azad Jammu and Kashmir in the south. Home to about a million people, the region is special for its spatial character derived from the presence of three great mountain ranges that include the Himalayas, the Hindukush, and the Karakoram mountains. Five out of the world's fourteen highest peaks, including the second highest peak—the K2—are present in this region. The region also contains the largest perennial glacial deposits outside the polar region. It is this character of the region that has led some to term GB as the 'third pole' of the world.

Equally unique is the legal identity of the region which currently remains undefined, specially with regards to the representation of local people in the national apex institutions of legislation and governance—the National Assembly and the Senate. The promulgation of the Empowerment and Self-Governance Order in September 2009 heralded substantial changes in the administrative arrangements and boosted local autonomy (as discussed in greater detail in Section 3.2 on governance in the main report). Previously, the region was administered by the federal government through its Ministry of Kashmir Affairs and Gilgit-Baltistan (KAGB). The federal minister for KAGB was a cabinet member chosen from amongst the elected members of the National Assembly from Pakistan's four provinces, and chaired GB Legislative Assembly (GBLA), the apex body of locally elected representatives from six districts. Currently, the assembly has 33 local representatives, including 24 directly elected members and 12 indirectly elected women representatives and technocrats. Though the GBLA, formerly known as the Northern Areas Legislative Council, has been awarded greater authority in recent years to legislate on local matters, the constitutional status of the region remains ambiguous, 60 years after partition.

The lack of clarity over the legal status of GB stems from the developments on the Kashmir front that unfolded during the time of partition in 1947. According to historic accounts, the British government handed over the region to the Maharaja of Kashmir on August 1, 1947 despite the ambiguities that existed with respect to the territorial boundaries of the then Kashmir State in relation to different parts of what currently constitutes GB. This transfer of the entire region to the Maharaja and his decision to accede to India on 27th October 1947 gave the impetus to local liberation efforts that were brewing for some time. The region was separated on November 1, 1947 and the efforts to join Pakistan started soon thereafter, leading to the appointment of the first Political Agent on November 17, 1947. In the ensuing period, conflict between Pakistan and Indian forces on various fronts in Kashmir and the Northern Areas continued until the first cease fire line was established in 1949 by the UN, which was re-designated as the Line of Control (LoC) in 1971.

This interrelatedness of the GB and Kashmir issue has been an important consideration in shaping the government of Pakistan's response towards the governance of GB. Several administrative adjustments followed the appointment of the first political agent for Gilgit Agency, whose jurisdiction at that time encompassed all of GB. Initially, the political agent for Gilgit Agency was placed under the Political Resident for the NWFP. In 1950, the administrative responsibility of the region was transferred to the Ministry of Kashmir which after some ad hoc arrangements created the position of Resident for Northern Areas in 1967. The Resident served as the head of administrative and judicial affairs. By 1971, two political agents, one each for Gilgit and Baltistan agency, were assisting the Resident in governmental affairs. Starting in 1972, the government of Pakistan made further administrative changes including the abolition of Nagar state, conversion of Gilgit and Baltistan Agencies into districts, creation of Diamer district, and abolition of Hunza state in 1974. For a brief period, two more districts namely Ghizer and Ghanche were created that were later merged into the districts of Gilgit and Baltistan respectively.

By the early 1980s, additional administrative reforms were introduced to enhance the administrative authority at the district level by creating the positions of Deputy Commissioners for each district who reported to the Commissioner (re-designated position of Resident in 1979) for GB. Side by side, councils of elected representatives were also created at the district and sub-district level. The GB Advisory Council—originally created in 1969 as an apex body—was replaced by Northern Areas Council (NAC) that comprised members from the Northern Areas elected through adult franchise. Under the Legal Framework Order 1994, the NAC was re-designated as the Northern Areas Legislative Assembly (NALC) with an increased advisory role.

Another set of institutional reforms were carried out in 2004 and 2007 primarily in response to the Supreme Court's decision in 1999 that urged the granting of fundamental rights to the people of the Northern Areas. These reforms included an increase in the number of elected members, the creation of an Appellate Court, and the re-designation of NALC into Northern Areas Legislative Assembly (NALA) with the authority to legislate on 49 items, including the powers to discuss and approve the budget for GB. As part of these reforms, the title of the head of the NALA was also changed from the Deputy Chief Executive to the Chief Executive of Northern Areas. Expanded administrative and financial authority was also granted.

While the past administrative reforms have led to a gradual devolution of governing authority to GB, they fall short in terms of their scope in defining the constitutional status of the region. At this stage, reforms such as granting provincial status to GB and full franchise at the national level to the people of GB, are not viewed as feasible by the central government due to concerns that such actions would be interpreted as an acceptance of the status quo on Kashmir issue. The Government of Pakistan maintains the view that the territory of Kashmir is a disputed area whose future status has to be resolved through a plebiscite as per the United Nations Resolution 47 that was passed in 1948.

*Source: Dani, Ahmad H (2001): History of Northern Areas of Pakistan: Up to 2000 AD, Sang-e-Meel Publications, Pakistan.*

## Annex 6: Notes and Sources for MDG Table

MDG Indicator	Source
<b>Goal 1-a:</b> Poverty Head Count Ratio (%)	Bank staff estimates based on PSLM 2004-05. See Table 1 Profile of Social and Economic Indicators Northern Areas, GBER Background Paper
<b>Goal 1-b:</b> Malnutrition Prevalence (Weight for Age: % of Children <5)	National Nutrition Survey 2000/02 quoted in Table 2.4 Health Policy Note, GBER Background Paper
<b>Goal2-a:</b> School Enrollment, Primary (% net)	Bank staff estimates based on PSLM 2004-05
<b>Goal3-a:</b> Ratio of female to male primary Enrollment	Bank staff estimates based on PSLM 2004-05
<b>Goal3-b:</b> Ratio of female to male Secondary Enrollment	Bank staff estimates based on PSLM 2004-05
<b>Goal4-a:</b> Mortality rate, infant (per 1000 live births)	PIHS 1998-99 figures quoted in Table 2.1 Health Policy Note, GBER Background Paper
<b>Goal4-b:</b> Mortality rate, under 5(per 1000 live births)	
<b>Goal5-a:</b> Maternal Mortality Ratio per 100,000 live births	PIHS 1998-99 figures quoted in Table 2.1 Health Policy Note, GBER Background Paper
<b>Goal5-b:</b> Births attended by skilled health staff ( % of total)	PIHS 1998-99 and PSLM 2004-05 figures quoted in Table 2.1 Health Policy Note, GBER Background Paper
<b>Goal6-a:</b> Tuberculosis Prevalence rate per 1000,000 population	Page 18, Health Policy Note, GBER Background Paper
<b>Goal7-a:</b> Forest Area (% of land Area)	Page 14, Natural Resource Sectors, GBER Background Paper
<b>Goal7-b:</b> Access to tap/hand pump water(% of population)*	Bank staff estimates based on PSLM 2004-05. The figure for Gilgit-Baltistan includes the category of piped water only. Comparable national estimate for tap water is 34 percent
<b>Goal8-a:</b> Unemployment, youth total (% of total labor force ages 15-24)**	Staff estimates based on PSLM 2004-05. The original estimate for Pakistan is 15 percent for 2004 in the MDG report. For comparison purposes, an estimate for Pakistan and GB is computed based on PSLM 2004-05. This figure represents the share of unemployed youth to total in the age bracket 15-24 and excludes those who are not in the labor force.
<b>Memorandum items:</b>	
Adult literacy rate (% of people aged 15 and above)	Staff estimates based on PSLM 2004-05. The figure refers to literacy among people age 10 and above
Fertility rate, total (births per woman)	NIPS 2007 figures quoted in Health Policy Note, GBER Background Paper

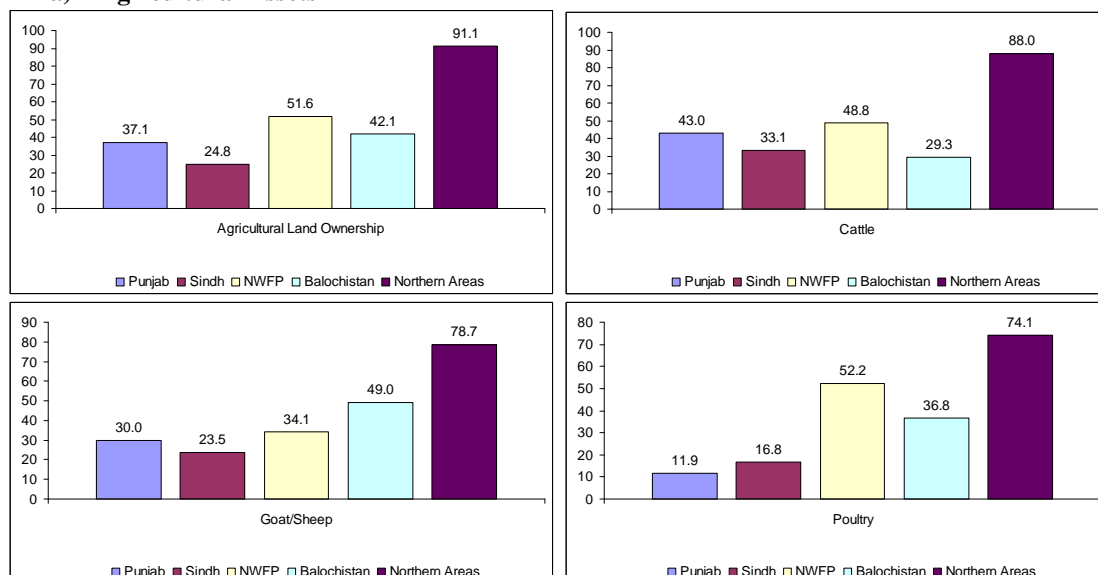
Notes: Unless indicated otherwise, all figures for Pakistan are taken from the Official MDG Report from MDGmonitor.org

\* Figures for Pakistan and GB represent only tap water access.

\*\* The original figure for Pakistan is replaced with 7.4 based on PSLM 2004-05 to make it comparable with GB.

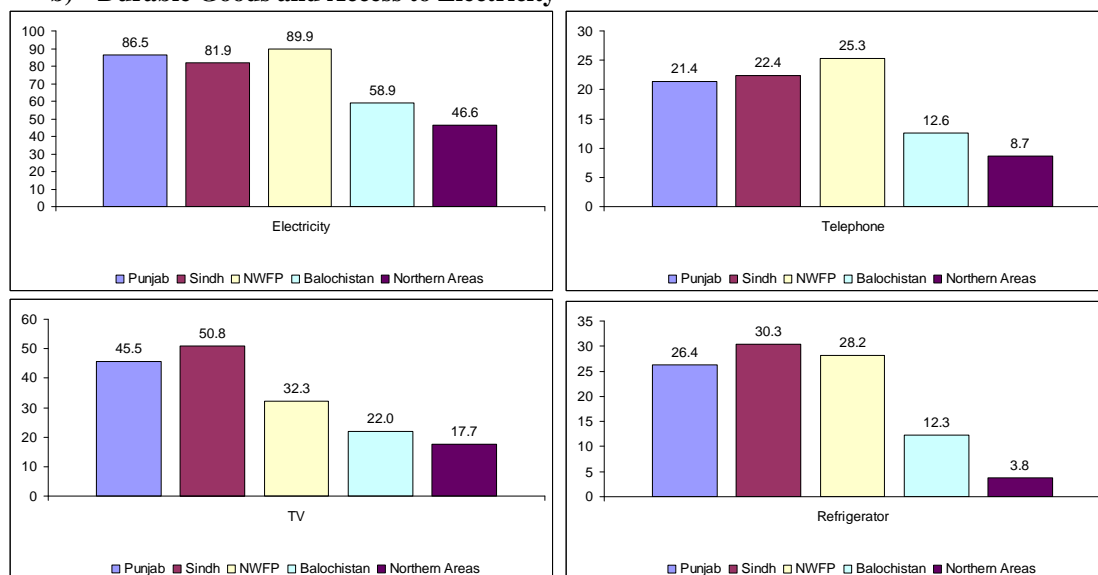
## Annex 7: Provincial Comparisons in Asset Ownership

### a) Agricultural Assets

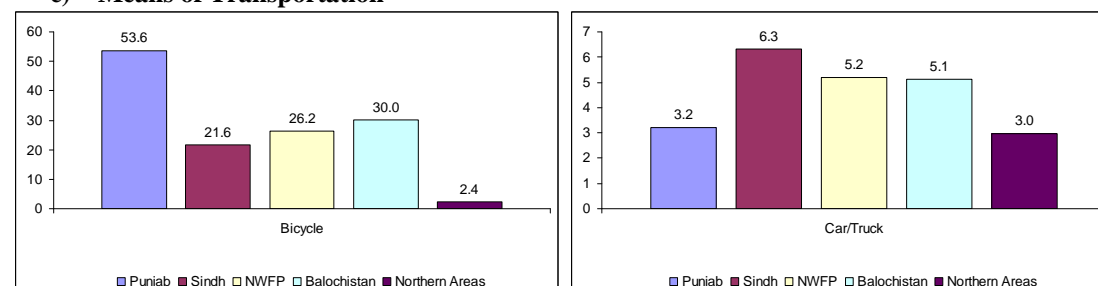


Source: Bank staff estimates based on PSLM 2004-05

### b) Durable Goods and Access to Electricity



### c) Means of Transportation

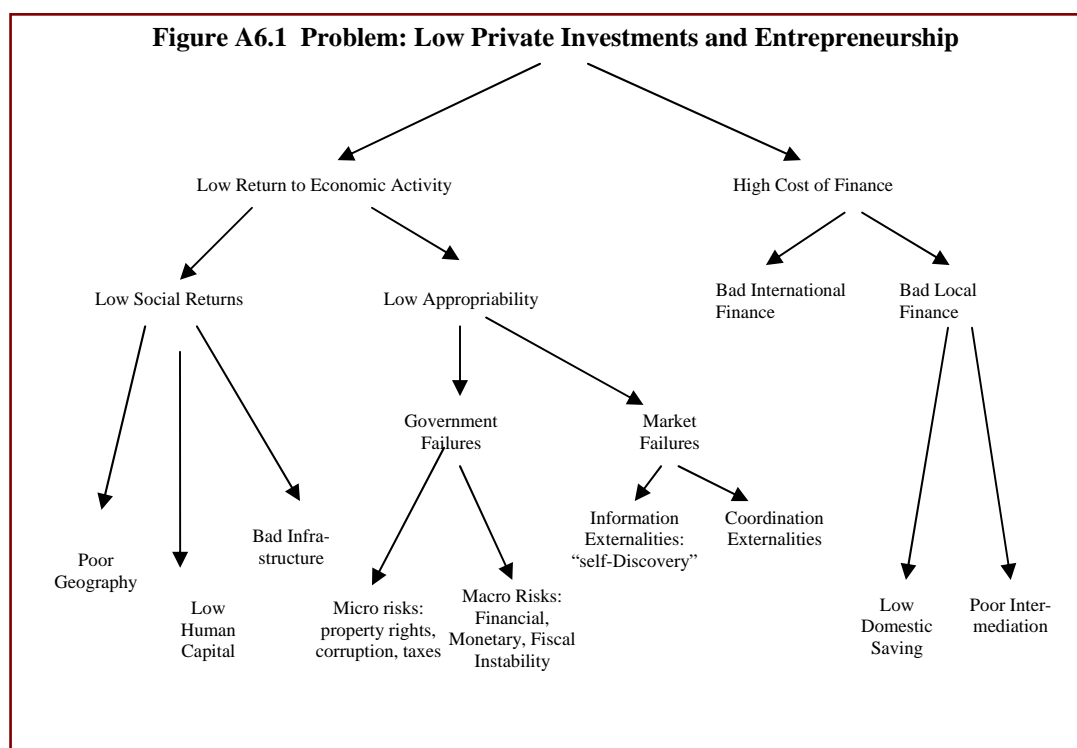


Source: Bank staff estimates based on PSLM 2004-05

## Annex 8: Growth Diagnostics

The ‘growth diagnostics’ framework that was developed by Dani Rodrik, Ricardo Hausmann and Andres Velasco (2005) aimed to help analyze and develop growth strategies based on the constraints faced by individual countries. The key step is to identify the most binding constraint(s) on economic activity and use this knowledge to prioritize policy actions. The approach was motivated by two important considerations. First, past reform efforts involving uniform growth strategies based on general best practices have yielded mixed results. Undoubtedly, there are some general principles such as secure property rights, the rule of law, market-oriented incentives, and sustainable public finances that are desirable everywhere. Yet putting these general principles into practice requires considerable knowledge of local specificities. Second, policy makers are often faced with political, financial and administrative limitations. Under such circumstances, a long list of proposed reforms that do not specifically attempt to relax the most binding constraints seldom proves useful.

Conceptually, the framework categorizes all key constraints that limit economic growth into three broad categories: i) high costs of finance that could result from low savings, poor intermediation in domestic financial markets or poor integration with external financial markets; ii) low social returns that could be due to insufficient investment in factors such as human capital, technical know-how, infrastructure, or poor geography; and iii) low private appropriability owing to high taxation, weak property rights and contract enforcement; or learning and coordination externalities (Figure A6.1).



In order to identify the most binding constraint, a policy maker has to start from the top of the decision tree, that is, to investigate whether low growth is due to high cost of finance, low appropriability, or low social returns. At each stage, the task is to look for diagnostic signals, direct and indirect, to select the most binding constraint(s) and rule out others. For instance, if the problem is high cost of finance, then interest rates—a direct signal—should be high and growth should respond vigorously to changes in interest rates. Similarly, the existence and excessive reliance on informal lending among business groups can be an indirect signal that points towards difficulties in raising capital from formal sources. The mere

existence of an inhibiting factor does not automatically qualify it as the most binding constraint. There should be some objective basis to infer that removing the constraint would lead to a boost in economic growth.

Applied to the context of Gilgit-Baltistan, the framework yields useful insights. A cursory look suggests that almost all the problems outlined in the framework seem to affect growth in GB. But a closer review at the available evidence indicates that the main problem lies with low social returns, owing to the twin problems of harsh geography and poor infrastructure. The signals for this are the high share of subsistence agriculture, the low levels of economic activity linked to the markets either within the GB or outside, and the limited access to public services. Indeed, after the opening of the KKH—an investment that partially eased a very binding constraint—GB experienced an unprecedented wave of economic activity. While the KKH was a major step change in integration, the region requires added investment in energy, roads and communication to offset the challenges posed by difficult geography.

## Annex 9: Fiscal Data Tables

**Tables A7.1: Gilgit-Baltistan: Recurrent Expenditure by Economic Classification**

	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
<i>(In Millions of Rupees)</i>											
Personnel-Related	728.8	797.2	828.3	960.6	1,067.2	1,250.9	1,747.0	1,933.7	1,981.4	2,432.2	3,230.9
Pay	485.1	489.5	491.9	686.0	763.0	873.9	971.3	1,101.6	1,162.5	1,426.9	2,061.6
Allowances	243.7	307.7	336.4	274.6	304.2	377.0	775.7	832.1	818.9	1,005.3	1,169.3
Operating Expenses	160.0	273.9	222.4	248.3	271.0	342.6	342.9	469.5	395.9	511.4	1,898.1
Grants and Subsidies	0.0	0.0	0.0	0.0	0.0	153.5	197.4	197.1	216.3	243.0	282.6
Transfers	9.9	53.5	80.7	81.8	156.5	10.6	13.0	13.7	14.0	15.1	19.9
Physical Assets	0.0	5.9	17.2	32.9	32.7	29.7	163.0	18.5	8.4	4.0	9.3
Repair and Maintenance	4.8	6.9	8.9	12.1	18.0	18.7	24.5	28.0	31.3	340.2	458.4
<b>Total</b>	<b>903.5</b>	<b>1,137.3</b>	<b>1,157.5</b>	<b>1,335.7</b>	<b>1,545.5</b>	<b>1,805.9</b>	<b>2,487.9</b>	<b>2,660.5</b>	<b>2,647.4</b>	<b>3,545.9</b>	<b>5,899.2</b>
<i>(As a Percentage of Total Recurrent Spending)</i>											
Personnel-Related	80.7%	70.1%	71.6%	71.9%	69.1%	69.3%	70.2%	72.7%	74.8%	68.6%	54.8%
Pay	53.7%	43.0%	42.5%	51.4%	49.4%	48.4%	39.0%	41.4%	43.9%	40.2%	34.9%
Allowances	27.0%	27.1%	29.1%	20.6%	19.7%	20.9%	31.2%	31.3%	30.9%	28.3%	19.8%
Operating Expenses	17.7%	24.1%	19.2%	18.6%	17.5%	19.0%	13.8%	17.6%	15.0%	14.4%	32.2%
Grants and Subsidies	0.0%	0.0%	0.0%	0.0%	0.0%	8.5%	7.9%	7.4%	8.2%	6.9%	4.8%
Transfers	1.1%	4.7%	7.0%	6.1%	10.1%	0.6%	0.5%	0.5%	0.5%	0.4%	0.3%
Physical Assets	0.0%	0.5%	1.5%	2.5%	2.1%	1.6%	6.6%	0.7%	0.3%	0.1%	0.2%
Repair and Maintenance	0.5%	0.6%	0.8%	0.9%	1.2%	1.0%	1.0%	1.1%	1.2%	9.6%	7.8%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>



## **Annex 10: Public Expenditure Management Reforms**

The increasing autonomy Gilgit-Baltistan could be a challenge and an opportunity for the GoGB to redesign its budgetary institutions, processes and procedures. The proposed decentralization can change the entire budget-making paradigm in GB. On the one hand, it would severely tax the limited capacity of the GoGB to prepare and implement its annual budgets; on the other hand, these budgets, and especially the development programs, are likely to better reflect the local priorities.

Both because of GoGB's familiarity, and the ease associated with the federal government's existing procedures, there will be a natural tendency to adopt them in the post-autonomy set-up (as reflected in the Gilgit-Baltistan System of Financial Control and Budgeting Rules, 2009). In some sense, this would be disappointing as greater autonomy offers the GoGB an opportunity to redesign its budgetary procedures not only to conform better to local conditions but also according to international best practice.

As indicated above, fiscal management in GB is tantamount to expenditure management. While there is an obvious need for building up a local revenue base, in the foreseeable future, expenditure management would continue to determine the quality of fiscal management. Given the scarcity of its fiscal resources, and the enormity of its development needs, the GoGB needs to undertake reforms which would improve the effectiveness of public expenditure. In designing these reforms, the GoGB can learn from the experience of other governments, within and outside Pakistan. On the basis of some lessons learned from the experience of national and sub-national governments in Pakistan and abroad, several initiatives could usefully be considered by the GoGB for improving its expenditure management.

Expenditure efficiency can be enhanced by moving from single-year to a multi-year budgetary horizon, and from an input to output focused budget. In this regard, the federal government is already implementing a phased expansion of its Medium-Term Budget Framework (MTBF), which is expected to include all of the federal government starting 2009/10. The GoGB may opt to design its own expenditure management under a Medium-Term Expenditure Framework (MTEF).

The overall objective of budget reform under an MTEF is to improve the quality and sustainability of government service provision in the light of declared regional sectoral priorities. The key features of a typical MTEF are given in Box A10-1. Irrespective of whether some or all aspects of a typical MTEF are adopted for implementation, budget reforms which aim to implement (or consolidate) any of the key component features are themselves desirable. The likely benefits of adopting the MTEF approach are highlighted in Box A10-2.

### **Box A10-1: Main Features of an MTEF**

An MTEF approach to budgeting is currently being established in a number of countries, including Pakistan. The precise nature of MTEF implementation in each country and sub-national government/administration depends on the relative budget reform priorities and the respective objectives of the government or administration concerned. Notwithstanding this, each MTEF approach is characterized by a number of key features which include:

***Using a multi-year planning framework:*** The main characteristic of an MTEF is that it is a 'rolling approach' in the sense that expenditures and revenues are estimated and projected over a period of more than one year. Typically, an MTEF period would be three to five years. This provides the spending units greater predictability of the fiscal resources that may be available to them over the medium-term, which helps them to better design their sector policies and strategies.

***Strengthening revenue forecasting:*** Greater predictability of available fiscal resources requires more accurate estimates of revenues that may be available over the MTEF horizon.

***Restructuring sectoral expenditures on the basis of analyses and related institutional mechanisms:*** Under an MTEF, a key objective is to maximize the benefits from public expenditures through: (i) evaluating and reviewing the nature of the services that are currently funded through public expenditures; (ii) determining the nature of the services that *should be* produced according to the objectives of each department; (iii) determining an appropriate mix of inputs (e.g. wage and non-wage) to achieve desired objectives; (iv) determining the cost of implementing the programs and activities that would be required to achieve the objectives; and, (v) prioritizing departmental/sector programs and activities such that objectives can be best achieved within the available resources.

***Restructuring budget classification and reporting systems:*** This is an essential part of linking expenditures more transparently to outputs and outcomes.

***Integrating the recurrent and development budgets:*** The ultimate objective is to create a unified budget with capital and recurrent components so as to allocate overall resources more effectively to priorities and make proper provision for the recurrent cost of investments.

### **Box A10-2: Summary of the Potential Benefits of an MTEF Approach**

The key benefits of an MTEF approach can be summarized as follows:

- Greater certainty over available resources, permitting clear-cut decisions over what can and cannot be funded.
- Enhanced participation and 'ownership' among line departments in the budget process as a result of its improved predictability and consistency.
- Improved management of the overall resources available to the budget, implying both enhanced allocations to priority sectors and more efficient management of funds received.
- Greater consistency between macroeconomic performance, policy formulation and public expenditure.
- A better defined and more detailed budget calendar, fully respected by all spending agencies and central ministries.
- Greater transparency over budgetary allocations and procedures and increased clarity over the expected outcomes of public expenditure.
- An improvement in the quality and efficiency of service delivery by refocusing the attention of departments on the outputs and planned outcomes of expenditure.
- Better integration of planning and programming of the recurrent and development budgets, with the ultimate aim of unifying them into one budget with recurrent and capital components.
- An *explicit* inclusion of all development resources (both internal and external) in the budget process.

On the ADP side, the effectiveness of ADP expenditure can further be improved through:

***Beneficiary participation in project design and preparation:*** International experience shows that beneficiaries' participation in project design and implementation can reduce implementation delays, and promote the adoption of more cost-effective solutions.

***Further reducing financing demands on the ADP:*** Resources need to be concentrated in areas where there is no alternative to government provision. Induction of private and NGO sector in provision of infrastructure and/or delivery of social and economic services, especially in economically stronger areas and among more affluent households, can significantly reduce demands on the ADP.

***Rationalization of the portfolio of projects in the ADP:*** Strengthening the strategic focus and reducing the throw-forward of project commitments will enhance the performance of the ADP. To achieve this, the GoGB may consider: (i) removing projects which have received zero or only token funding over the last couple of years; (ii) grouping projects (e.g. all schools in a pre-specified small enough area) in order to reduce the overhead cost of implementation; and (iii) reviewing the ongoing projects in each sector periodically in order to identify where there is a need for restructuring, downsizing, or curtailment.

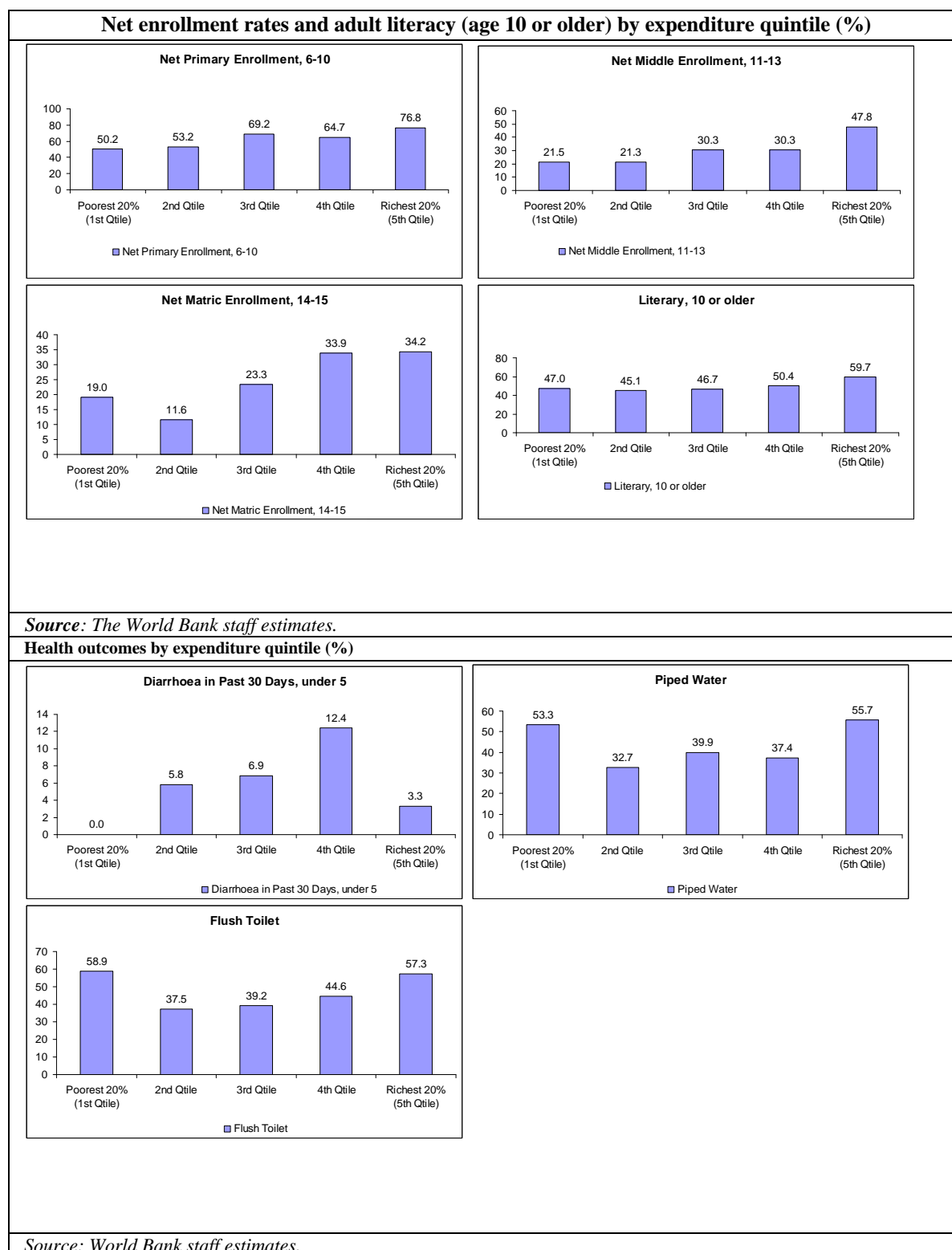
***Adopting a program framework to public investment:*** Presently, ADP management is overly focused on the planning and funding of individual projects. Insufficient attention being is given to broader issues of policy linkages and program resource allocations. The introduction of a stronger program framework to the planning of the ADP will require:

- Strengthening the policy basis and outcome orientation of public investment.
- Establishing sectoral resource ceilings for the PSDP within a medium-term framework.
- Placing greater emphasis on initial project screening and selection of projects into the ADP prior to their detailed preparation and appraisal.
- Ensuring coordination and an appropriate balance between the PSDP and the GB ADP.

***Strengthening Program Monitoring and Evaluation:*** The introduction of a program framework for the ADP, by linking investment allocations with sector strategies and program outcomes, should create a stronger framework for effectively monitoring the ADP. Specific measures to strengthen the development portfolio and expenditure include:

- Consolidating the existing sources of financial monitoring information. Ideally, monitoring of ADP expenditures should be based on, and be part of, the financial and Budget Execution Reports (BERs) submitted by the local office of AGPR.
- Strengthening project monitoring capacity in the line departments.
- Using external sources (e.g. third party surveys) to assess the impact of sectoral and overall development programs.
- Ensuring that the results of program and project evaluations are fed back into the planning process.

## Annex 11: Education and Health Indicators by Expenditure Quintiles



## **Annex 12: Key Interventions in the Education Sector**

GB has a long history of community based projects, beginning with the Diamond Jubilee schools for girls set up by the Ismaili community in 1946. This section, however, focuses on donor assisted initiatives undertaken over the last two decades.

### **Social Action Program**

The Social Action Program (SAP) was a joint undertaking of the GoP and major donors like the World Bank and ADB, initiated in 1994 to expand and improve basic social services in Pakistan. Under the GB's component of SAP, 538 community schools were opened bringing about a surge in enrollments at the primary level. The SAP design entailed communities providing land for the school building and playing a role in management through School Management Committees (SMCs), while the government paid teacher's salaries through earnings from an endowment fund of Rs. 50 million.<sup>147</sup> Each school was allocated Rs. 0.1 million from the endowment fund, and an income of Rs. 1200 per month was generated for one teacher's salary. However, the SAP schools suffered from a reduction in bank interest rates in 1998, rendering the project unsustainable. Eventually, the SAP schools were subsumed into the donor assisted Northern Areas Education Project (NAEP) (discussed below). Currently, the National Education Foundation is contemplating providing initial funding support to SAP schools after a complete review of existing 535 schools. Longer term arrangements to ensure the sustainability of the schools are not currently in place.

### **Northern Areas Education Project**

The NAEP was essentially a complementary initiative to SAP and was the first GB specific donor assisted project in education in the region. The first phase of the NAEP was initiated in 1998, with the prime objective of developing elementary education in the region, with particular emphasis on girls' education. Key education sector issues identified for GB at that time included: a) deficiencies in physical infrastructure (both in terms of inadequate buildings and poor maintenance); b) inadequate teaching staff and poor quality of instruction; and, c) lack of an administrative structure for education management, planning and evaluation.

NAEP envisaged addressing the issues above by focusing the four themes:

- Improving the quality of education through teacher training, development of educational materials and systems of assessment.
- Increasing equitable access by rehabilitation of existing physical infrastructure and building of community schools.
- Strengthening institutions by capacity building efforts in the Directorate of Education, conducting baseline studies, and developing monitoring and evaluation (M&E) systems.
- Enhancing community participation through the strengthening of SAP schools.

The total cost of the project was estimated at \$36 million, of which an IDA credit covered \$22.8 million, DFID contributed \$3 million, and the Government of Pakistan contributed \$7.7 million. The

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<sup>147</sup> The GBER team's interview with the Secretary Education for GB revealed that the SMCs formed under SAP have recently been re-constituted with the District Commissioners as the heads of the Committees as opposed to a local notable. This change was necessitated by excessive political interference in school management. The Secretary's account indicated that the SMCs had become typical examples of how local institutions can be subject to elite capture.

community's contribution was assessed at \$2.5 million. NAEP also introduced the concept of a child subsidy at Rs. 60 per month per child, which was paid to all children attending community schools over the life of the project, from 1998 to 2003. The subsidy was subsequently discontinued due to falling incomes on SAP endowment funds.

The initial phase of NAEP (1998-2002) is credited with constructing community schools principally for girls, including study centers in remote valleys aimed at training primary school teachers, and providing training opportunities for female education managers. The total number of schools in the region doubled during Phase I of the project, and female Enrollment increased from 47 to 73 percent (British Council, 2005). As a consequence, the gender balance in education improved from 30 to 44 percent female Enrollment (World Bank 2004, page 5). Phase II of the project, which ran over the fiscal year 2002/03, concentrated more on the development of management and IT systems for the sector. In addition to its positive role in increasing access, the project is also considered a pioneer in the development of education management in the public sector in the region, with its emphasis on teacher training and locally developed textbooks; in-depth assessment of students and teachers; and capacity building in the Directorate of Education, which led to the preparation of annual plans and the establishment of M&E systems. The project is also credited with setting up a Education Management Information System (EMIS) in GB. Currently, the GoGB is seeking support for a new phase of NAEP to consolidate its gains and address the issues of disparity in educational outcomes.

## **Northern Pakistan Education Program**

### **Phase I**

The \$11.1 million Northern Pakistan Education Program (NPEP) Phase I was funded by the European Commission (EC) over a five year period, starting in September 1997. The program was implemented through the Aga Khan Education Services Pakistan (AKES-P) in five districts of GB and Chitral. It included activities related to field based teacher training, community mobilization, and improvement in the quality of education imparted through the standardization of examinations. In addition, it constituted infrastructure components, consisting of a Community School Development Program in which 45 Memorandums of Understanding (MOUs) were signed with communities for the establishment of community schools. The MOUs were followed up in many cases by the Self-Help School Construction Program implemented by the AKES-P through which communities were assisted in building 357 schoolrooms and 73 toilet blocks. The community's contribution took the form of a donation of land, locally available building materials and labor.

### **Phase II**

The second phase of the NPEP was approved in 2003 and operated through 2008. Total funding for Phase II was \$24.8 million. The overall objective of the project was to improve access to quality education, bridging gender gaps in education and strengthening the participation of communities in school management. Phase II activities were focused in three areas: a) *Professional Development* through field based training of teachers and the establishment of a Professional Development Center for GB (PDCN); b) *Community Development* through support to community mobilization, non-formal education in remote valleys, community schools development and construction programs and training for parents and other SMC members; c) *Institutional Development* by providing support for the establishment of a program office for the project in Gilgit and field offices and for research and M&E activities. The NPEP has been distinguished for its innovative sub-components including the establishment of Computer Literacy and Technology Centers in selected schools, and the promotion of non-formal education through programs such as Basic Education for Older Children and Mother-Daughter Learning Partnership.