

# MANAGED LABOR MIGRATION IN AFGHANISTAN: EXPLORING EMPLOYMENT AND GROWTH OPPORTUNITIES FOR AFGHANISTAN

Public Disclosure Authorized

Public Disclosure Authorized

Public Disclosure Authorized

Public Disclosure Authorized



**Robert Holzmann**

Summary Policy Report to the World Bank Project on  
“Afghanistan: Managed International Labor Mobility as  
Contribution to Economic Development and Growth”

**STANDARD DISCLAIMER:**

This volume is a product of the staff of The World Bank. The findings, interpretations, and conclusions expressed in this paper do not necessarily reflect the views of the Executive Directors of The World Bank or the governments they represent. The World Bank does not guarantee the accuracy of the data included in this work. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of The World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

**COPYRIGHT STATEMENT:**

The material in this publication is copyrighted. Copying and/or transmitting portions or all of this work without permission may be a violation of applicable law. The World Bank encourages dissemination of its work and will normally grant permission to reproduce portions of the work promptly. For permission to photocopy or reprint any part of this work, please send a request with complete information to the Copyright Clearance Center, Inc., 222 Rosewood Drive, Danvers, MA 01923, USA, telephone 978-750-8400, fax 978-750-4470, <http://www.copyright.com/>. All other queries on rights and licenses, including subsidiary rights, should be addressed to the Office of the Publisher, The World Bank, 1818 H Street NW, Washington, DC 20433, USA, fax 202-522-2422, e-mail [pubrights@worldbank.org](mailto:pubrights@worldbank.org)

## **Managed Labor Migration in Afghanistan: Exploring Employment and Growth Opportunities for Afghanistan**

**Robert Holzmann<sup>1</sup>**

Summary Policy Report to the World Bank Project on  
“Afghanistan: Managed International Labor Mobility as  
Contribution to Economic Development and Growth”<sup>2</sup>

Washington, DC, Kabul, and Vienna  
January 2018

### **Abstract**

Afghanistan’s economic prospects are dim and its growth options limited. This puts pressure on the labor market, with 400,000 new entrants joining the labor force annually. As in the past, this will likely lead to mostly illegal emigration with limited employment prospects and wages in neighboring countries (Pakistan, Iran) and beyond. This is unfortunate given Afghanistan’s geographic proximity to the world’s third largest migration destination region behind North America and Europe: the countries of the Gulf Coordination Council (GCC). For some time now, various Asian countries have used managed labor migration as a means to secure temporary and legal jobs for their surplus labor, garnering higher wages and opportunities to transfer income back to their families, save for future investments, and gain work experience and higher skills. Managed labor migration based on well-designed bilateral labor agreements that reflect the objectives of both the labor-sending and labor-receiving country could open opportunities for Afghanistan in GCC countries and even in higher wage labor markets, provided that adequate labor-sending systems are in place. This paper explores the use of managed labor migration as an instrument for employment for the Afghan labor force and for economic growth. It investigates the supply of and demand side for managed migration flows, estimates the impact on the volume of remittances sent back, and examines the possible impact of formal labor migration opportunities on skills formation of migrants and of the labor force remaining home. These quantitative profiles of remittances and skills are explored with a country-calibrated computable general equilibrium model to estimate the impact on output, economic growth, and other relevant economic outcomes; they may trigger policy action to make managed labor migration a reality in Afghanistan.

---

<sup>1</sup> Professor of Economics: Austrian Academy of Sciences (Vienna), University of New South Wales (Sydney), and University of Malaya (Kuala Lumpur).

<sup>2</sup> The project and report profited from great guidance and comments by Andras Bodor, very helpful comments and suggestions by the authors of the background papers (Carole Chartouni, Daniel Garrote-Sánchez, Yaw Nyarko, and Rebekah Smith), and excellent as constructive peer review comments by Phillip O’Keefe, Mauro Testaverde, and Silvia Redaelli. The report was presented in Kabul, Vienna, and Washington, D.C and profited from very constructive comments and discussions with the audiences. All remaining errors are the author’s responsibility.

---

## Table of Contents

<b>Acronyms and Abbreviations</b> .....	iii
1. Background, Issues, and Structure	7
2. Concept, International Lessons, and Implications of Managed Migration for Afghanistan	9
2.1 Some Conceptual Clarifications	9
2.2 Channels of Economic Effects	10
2.2.1 Employment and Regular Wages for Migrants	11
2.2.2 Remittances	12
2.2.3 Skills	13
2.2.4 Other Effects of Migration	14
3. Exploring the Supply Side of Afghan Migration	15
3.1 International Labor Mobility for Nationals: Macro-Level Experience and Evidence	15
3.1.1 Historical Patterns of Afghan Migration and Current Situation	15
3.1.2 Migration and Remittances	18
3.2 International Labor Mobility for Nationals: Micro-Level Experience and Evidence	21
3.2.1 Domestic Labor Market Conditions	21
3.2.2 Profiles of International Afghan Returnees and Seasonal Migrants' Families	22
3.2.3 Differences between International Migrants and Nonmigrants	23
3.2.4 Profile of International Migrants Abroad	24
3.3 Demographic and Economic Background for Projections of Migration Pressure	26
3.3.1 Drivers of Demographic Structure	26
3.3.2 Demographic Projections of Afghan Labor Supply	27
3.3.3 Projections of Labor Demand and Derivation of the Supply–Demand Gap	28
4. Exploring International Demand and Institutional Requirements	31
4.1 Potential Host Countries for Managed Migration	31
4.1.1 Methodology	31
4.1.2 Summary Findings of the SWOT Analysis by Country	33
4.1.3. Summary Assessment	35
4.2 Institutional Requirements and Policy Processes	35
4.2.1 The Benchmark: Sending Countries' Systems for Accessing Overseas Jobs	36
4.2.2 Comparing the Benchmark with Reality in Afghanistan	39
4.2.3 Building a Labor-Sending System for Afghan Workers	41
5. Policy Scenarios of Managed Migration and Growth Drivers	45
5.1 Baseline Scenario	45
5.1.1 Baseline Profile of Migrants	45
5.1.2 Baseline Profile of Remittances	47
5.1.3 Baseline Profile of Migrants' Skills	48
5.2 Policy Scenarios	49
5.3 Results of Policy Scenarios on Remittances and Skills/Literacy Acquisition	52
5.3.1 Remittances Scenarios	52
5.3.2 Literacy/Skills Scenarios	54
6. Computable General Equilibrium (CGE) Model Results	57
6.1 Simulated Policy Scenarios	58
6.2 Results from Other CGE Country Studies on the Effects of Remittances	59
6.3 Policy Simulation Results	59
7. Summary and Next Steps	65
7.1 Baseline and Policy Scenarios	65
7.2 Results of CGE Modelling	67
7.3 Next Steps	68
7.4 Possible Roles for Donor Countries	69
<b>References</b>	70
<b>Annex A: List of Background Papers and Authors</b>	74
<b>Annex B: Estimates of Migration and Remittances</b>	75
<b>Annex C: Results of Policy Scenarios</b>	84
<b>Annex D: Basic Information on the Applied CGE Model</b>	86

---

## List of Figures

<b>Figure 3.1:</b> Trends in total Afghan migrants abroad by country of destination, 1990–2015	16
<b>Figure 3.2:</b> Trends in Afghan migrants abroad by status and gender, 1990–2015	17
<b>Figure 3.3:</b> Trends in economic/labor migrants from Afghanistan, 1990–2015	18
<b>Figure 3.4:</b> Flows of remittances from and into Afghanistan, 2008–2015	19
<b>Figure 3.5:</b> Comparison of monthly income of Afghans in the United States and Afghanistan	25
<b>Figure 3.6:</b> Correlation of education and employment rates of Afghan migrants in OECD countries	25
<b>Figure 3.7:</b> Fertility, mortality, and migration rates and their impact on Afghan population growth, 1960–2014	26
<b>Figure 3.8:</b> Projected changes in population, population structure, and labor force participation, 1992–2020	27
<b>Figure 3.9:</b> Projected annual flows of labor supply and demand growth, 2015–2030	28
<b>Figure 3.10:</b> Projected annual flows of labor supply and migration pressure, 2016–2030	29
<b>Figure 5.1:</b> Migration pressure and projected net labor migration flows, 2011–2030	46
<b>Figure 5.2:</b> Baseline profile of remittances (as a % of GDP), 2015–2030	47
<b>Figure 5.3:</b> Baseline profile of literacy rates of the Afghan labor force, 2013–2030	48
<b>Figure 5.4:</b> Policy scenario of official and informal remittances, 2015–2030	53
<b>Figure 5.5:</b> Policy scenario of officially recorded remittances, 2015–2030	53
<b>Figure 5.6:</b> Policy scenarios of literacy rate of the Afghan labor force, 2013–2030	55

## List of Tables

<b>Table 3.1:</b> Correlation between inflows of remittances in Afghanistan and key variables, 2008–2015	20
<b>Table 3.2:</b> Labor market conditions in Afghanistan	21
<b>Table 3.3:</b> Share of international migrants among households and the total population	22
<b>Table 3.4:</b> Place of destination for Afghan international migrants (percent)	23
<b>Table 4.1:</b> Summary assessment of potential host countries	35
<b>Table 4.2:</b> Pillars and content of a functioning international labor-sending system	36
<b>Table 5.1:</b> Policy scenarios and the progression of assumptions	51
<b>Table 5.2:</b> Assumptions behind remittances scenarios of managed migration	52
<b>Table 5.3:</b> Assumptions behind literacy/skill scenarios of managed migration scenarios	54
<b>Table 6.1:</b> Policy simulation scenarios	58
<b>Table 6.2:</b> Macroeconomic impact: Percentage change with respect to baseline, 2030	61
<b>Table 6.3:</b> Labor force share, average 2014–2030	61
<b>Table 6.4:</b> Impact on employment and wage growth, average growth rates 2014–2030	62
<b>Table 6.5:</b> Households' welfare and consumption per capita, average growth rates 2014–2030	63

## Acronyms and Abbreviations

<b>ALCS</b>	Afghanistan Living Conditions Survey
<b>BGP</b>	Background paper
<b>BLA</b>	Bilateral labor agreement
<b>CGE</b>	Computable general equilibrium
<b>GCC</b>	Gulf Cooperation Council
<b>GDP</b>	Gross domestic product
<b>GoIRA</b>	Government of the Islamic Republic of Afghanistan
<b>IMF</b>	International Monetary Fund
<b>MoU</b>	Memorandum of Understanding
<b>MM</b>	Managed migration
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>SWOT</b>	Strengths, Weaknesses, Opportunities, and Threats
<b>UN DESA</b>	United Nations Department of Economic and Social Affairs
<b>UNHCR</b>	United Nations High Commissioner for Refugees



# 1

## Background, Issues and Structure

Afghanistan's prospects for economic growth over the next 15 years are not encouraging. This outlook contrasts with the country's recent history of an average (real) growth rate of 8.6 percent in the years 2003/04 to 2012/13<sup>3</sup> that was fueled by relative security, large inflows of foreign aid, and booming infrastructure investment and service expansion. More recent yearly growth stands at 2 percent and below. The June 2016 growth projections by the World Bank foresee a growth path that moves gradually from 1.9 percent in 2016 to 5 percent by 2030 (World Bank 2016b). This growth path is broadly consistent with the reduced April 2016 International Monetary Fund (IMF) growth projections that foresee Afghanistan's economy growing below 4 percent throughout the 2014–2021 period (IMF 2016)<sup>4</sup>.

Even under best-case scenarios for economic expansion, the Afghan economy is unlikely to generate sufficient jobs for its young and growing population. Reflecting the bottom-heavy age distribution of the young population, more than 400,000 Afghans out of a birth cohort of 800,000 are expected to enter the labor market every year. In the absence of sufficient jobs, a growing young, underemployed, and idle population represents both wasted human capital and a potential conflict risk, especially in the absence of alternative livelihood opportunities and inclusive political participation processes.

Labor mobility represents an important opportunity for Afghan migrants, the Afghan economy, and recipient countries. Evidence from Afghanistan and other migrant-sending countries clearly demonstrates the potential benefits of a regular wage job, with associated remittances increasing domestic income and consumption, reducing poverty, and bolstering foreign exchange receipts. International evidence also suggests broader potential economic benefits to the Afghan economy from increased international labor mobility, including: (1) increased incentives for human capital acquisition, starting with improved adult literacy, leading to higher stocks of human capital even among populations that continue to work within the domestic labor market; (2) improved knowledge of and connection to external markets; and (3) additional sources of human and financial capital from return or circular migration. Many countries face aging populations and are experiencing a shortage of low-skilled (but not unskilled) labor while others need low-skilled (but not unskilled) labor to complement their resource-based economies. Providing temporary labor mobility options on a revolving basis could represent a mutually beneficial mechanism through which the international community could meet commitments to support Afghanistan's development.

---

<sup>3</sup> The Central Statistics Office starting compiling gross domestic product (GDP) data only in 2003 so no information is available about previous trends in economic activity in similar format.

<sup>4</sup> In April 2015, the IMF projections expected an increase to 6 percent over the same period.

Afghanistan has experienced throughout its recent history major migration outflows as well as return flows that have been driven by natural disasters, changing security situations around Soviet invasion and local and Taliban dynamics, and economic peaks and troughs. Most refugees and economic migrants went to and returned from neighboring countries (Iran and Pakistan) in a mostly irregular and informal manner, as did most seasonal migrants. Some or much of this unmanaged migration will continue under any policy scenario. The “Project on Afghanistan: Managed International Labor Mobility as Contribution to Economic Development and Growth” explores the role and potential growth effects of managed migration; i.e., revolving migration flows of temporary migrants that are based on signed bilateral labor agreements (BLAs) or on less formal Memoranda of Understanding (MoUs) between Afghanistan as country of origin and host countries of destination<sup>5</sup>.

When well implemented, such managed migration flows promise to offer, among others, noticeable relief for the national labor market and reduced unemployment pressure, more regularity of migration patterns, access to higher-wage countries, more and sustained remittances, and more comprehensive skill-enhancement effects before departure, during the stay, and after return. The project develops scenarios of the scope, structure, and time profile of migration flows, remittances, and skill sets that could emerge from a managed migration approach. This output ultimately serves as an input into a country-calibrated computable general equilibrium (CGE) model to explore the potential output, development, and employment effects of this policy option, which can then be compared to the limited number of other promising growth options.

This policy paper presents the approach and key results of the project and draws on six separate background papers commissioned to this end. Section 2 of this paper presents the key findings of the international experience with unmanaged and managed migration and its implications for the Afghan situation. Section 3 explores the supply side of migration flows, building on macro and micro (household survey) data to inform about past stock and flows, and on labor force projections and employment-GDP elasticities to project the scope and time profile of possible economic migration flows. To inform the migration flow scenarios, section 4 explores the demand side, with its challenging tasks of: identifying potential host and contractual counterpart countries; developing BLAs/MoUs and building the needed infrastructure for managed migration; and assessing the speed with which this can happen. Section 5 brings together the demand and supply sides to develop scenarios of annual flows of out-migrants and return migrants, the expected related remittances, and the possible changes in their skill sets at exit and return; this allows building policy scenarios of a managed migration approach for Afghanistan for the period 2016 to 2030. Section 6 explores the potential economic outcomes of these policy scenarios with a country-calibrated CGE model. Section 7 offers a brief summary of the main points and concludes with suggestions for donor countries' engagement if such a policy option is deemed useful and worthy of donor support.

---

<sup>5</sup> The terms host country, receiving country, and country of destination are used interchangeably as are the terms home country, sending country, and country of origin.



# 2

## Concept, International Lessons, and Implications of Managed Migration for Afghanistan

International labor mobility has increased in recent decades and Afghanistan has experienced a sizable annual exit and return of its working-age population for some time. This project's objective is not to explore the change in the quantity of migrants to current migration destinations but rather the change in the quality and destination of migrants' out- and return flows. It draws on international experience of how this can be instigated and may contribute to growth in the domestic economy. This section offers the conceptual and international background, starting with some considerations about international labor migration, followed by an overview of the major and minor channels by which migration can lead to economic effects. The latter requires differentiating between unmanaged and managed migration as this is expected to affect outcomes in both sending and receiving countries.

### 2.1 Some Conceptual Clarifications

The number of individuals residing outside their home countries amounted to 3.3 percent of the world's population in 2015, an increase from 2.8 percent in 2000 (UN 2015). The annual flow of migrants is, however, much larger than the change in their stock – the net flow comprises much larger gross migration outflows (emigration) and inflows (immigration and returns). This is the result of return and on-migration to new destinations that may happen more than once in an individual's lifetime; circular migration has always existed and is likely rising. Multiple spells of migration over one's lifecycle are seemingly becoming the norm rather than the exception for an increasing number of individuals. For most countries in the world, the stocks and gross flows of migration are not well recorded, however, and must be constructed based on many assumptions from existing data to allow for analyses, as was done herein.

The data and analysis are complicated by the nature of migration flows, which include not only economic migrants but various other categories such as family members and students; the outflow and return flow also includes refugees, who are strictly speaking not migrants but fall into their own legal category, with implications for which country they are considered residents (home or host country). In reality, it is not easy to differentiate between economic migrants and formal refugees – during a stay abroad an asylum seeker may become a recognized refugee, a temporary migrant, or an illegal economic migrant. In the case of Afghanistan, this paper simply distinguishes between refugees and economic migrants.

No unified and empirically supported theory explains why people migrate. But empirical evidence suggests a number of patterns that are broadly agreed upon. First, in the short term, migration is driven by shocks such as natural disasters, war, and economic crisis; neighboring countries are typically the first recipients. Migration is quite likely mankind's oldest and most important risk management instrument (Holzmann 2003). Second, in the medium and long term, the main determinants that explain flows within migration corridors are economic, demographic, and societal differences between countries (e.g., Holzmann and Muenz 2005; Mayda 2010; Bodvarsson and Van den Berg 2013). Economic differences include income levels, income inequality, and unemployment rates. Demographic differences mostly concern differentials in population growth and the structure of the (young) labor force. Societal differentials concern, among others, the rule of law, gender equality, and religious freedom. Distance between countries plays some but not a decisive role. Third, out-migration to a specific country of destination seems to be linked to some nucleus event followed by path dependency based on individuals' networks. The nucleus may be historical (such as former colonial links) or political (such as a BLA or an MoU between countries).

Finally, the difference between managed and unmanaged (economic) migration needs some explanation. First, the differentiation is relatively new and little discussed, as managed migration is still the exception rather than the rule. Second, managed and unmanaged migration can best be seen as polar cases. Third, managed migration is not synonymous with temporary migration but if the host country receives migrants only on a temporary basis it must be managed to assure their return. In its extreme form, managed migration may be based on a BLA between countries that: is founded on clear policy objectives in both countries; has rules on migrants' annual scope, structure, and skill composition; defines rules on departure, admission, and return; and provides agreements on departure and arrival training and skill acquisition. In the other extreme of fully unmanaged migration, there is no contact much less any contracts between the migration corridor countries. The sending country has no view or action for or against emigrants (or returnees). The receiving country may have rules about who can enter the country and take up employment, but these rules are not driven by economic policy objectives (perhaps only political constraints). Considerations of objective-driven migration management suggest that migrants' outcomes in both sending and receiving countries can be significantly improved by some level of cooperation across main migration corridors without resorting to a full-fledged approach (Holzmann and Pouget 2010). Afghanistan currently has no system of migration management in place.

## 2.2 Channels of Economic Effects<sup>6</sup>

An outline of the economic effects of migration starts best with the impact on the individual (economic) migrant. This is followed by the economic effects from remittances and then by the effects of skill acquisition for the country of origin. These are the three main interrelated channels of research and policy attention. In addition, other likely macro- and micro-level effects are briefly discussed.

---

<sup>6</sup> This section draws on background paper (BGP) 1, additional references, and the author's own considerations.

<sup>7</sup> Clemens, Montenegro, and Pritchett (2009) estimate the purchasing power adjusted wage differences between the United States and 42 developing countries across the globe. They estimate that the median wage gap for a male, unskilled (9 years of schooling), 35-year-old, urban formal sector worker born and educated in a developing country is P\$15,400 per year at purchasing power parity. The unadjusted wage ratio across a number of migration studies is typically in the range of 4 and 8 to 1.

### 2.2.1 Employment and Regular Wages for Migrants

Promoting the movement of a country's labor supply abroad has three potentially significant effects for migrants, who can leave a situation of un- or underemployment, achieve a higher wage rate<sup>8</sup>, and do so on a much more regular basis, in most cases simultaneously. In addition, migrants can learn new techniques on the job and may receive formal training and upgrade their skills. With this income, migrants are able to increase consumption and investment possibilities for themselves and for their family back home. Any skill enhancement increases their chances for higher income in both their host and home country.

The effects on individual migrants likely differ between unmanaged and managed migrants and can, in principle, go in both directions:

Unmanaged migrants may achieve higher wage rates in their host country, as unmanaged host countries are less prone to oligopolistic wage setting and thus offer wages closer to individuals' marginal productivity. On the other hand, it is well documented that migrants with limited local language knowledge and lesser skills are often subject to a substantial wage discount relative to local workers or even outright exploitation. Furthermore, unmanaged migrants are much more likely to experience spells of unemployment and thus irregular earnings. Little information exists about the training and skills development of unmanaged and lower-skilled migrants. Unmanaged migrants who enter the host country under official channels may experience lower transaction costs to pay for services of intermediaries. On the other hand, they must pay for all of their living costs and for their arrival, return, and visit-related transport costs.

Managed migrants are likely to be subject to managed wage setting; i.e., they are offered a wage that is higher than back home but not anything close to what a local would earn. As they are typically subject to local labor mobility constraints – at least for an initial phase of one or more years – the wage level cannot be increased by changing to a new employer. On the other hand, they are less prone to become unemployed – in rare cases they may have to leave the country – and thus have a more regular income. Regarding skills enhancement, the evidence from Gulf Cooperation Council (GCC) countries suggests that they receive – on average – some training but less than their indigenous colleagues (World Bank 2016, 2017). In contrast to unmanaged migrants, some of their local costs such as housing and local transport may be covered by the employer, and usually so are the transport costs for arrival, return, and periodic visit flights back home. But managed migrants typically have to pay fees to intermediaries for their services to find a job.

---

<sup>8</sup> For the size of remittances in percent of GDP and distribution by countries, see <http://data.worldbank.org/indicator/BX.TRF.PWKR.DT.GD.ZS?end=2015&start=1977&view=chart>

### 2.2.2 Remittances

The flows of money from migrants back to their home countries have attracted the interest of policy makers and researchers for their development and growth effects, with micro-level effects on poverty and other development outcomes more traceable than a directly measured impact on receiving countries' economic growth (Barajas et al. 2009; Clemens and McKenzie 2014). Remittances are large and may amount to 10 percent or more of GDP of the home country; for receiving households, remittances may amount to a significant if not the main share of income (KNOMAD 2016; World Bank 2016a)<sup>8</sup>. Remittances of these magnitudes are bound to have effects – many are hypothesized to be positive and a few will be negative at times.

For receiving households, remittances increase their consumption possibilities and contribute to a reduction in measured poverty. Reduced poverty levels have a positive impact on nutrition standards, healthcare, and children's school attendance, thus improving the growth potential of the economy. Similar to social assistance payments, empirical evidence suggests that remittances are an important way to address economic or health shocks, reducing the probability of taking children out of school to support the family; as such, they are an important social risk-management instrument (Holzmann and Jorgensen 2001). And remittances are found to be countercyclical in the home country, while pro-cyclical in the host country. Remittances thus help stabilize income and consumption at home, acting as an instrument to safeguard families' human capital investment.

Remittances also have an income effect that risks reducing the labor supply of other family members. This is largely unavoidable and is the result of rational decision. However, the sparse evidence of such an effect needs to be treated with caution as remittances may be endogenous to local labor market conditions. Moreover, the effect on family labor supply is fully welcome if reliance on children's labor is reduced as a result of remittances.

Remittances comprise not only regular/recurrent transfers to support the family back home but also irregular/sporadic transfers to be saved or invested in the home country or taken as a final lump-sum transfer when returning home. Scattered data suggest that these accumulated resources in the host or home country are mostly intended for investment use, in particular for building a house, starting a business, and financing own education plans (Wahba 2014, 2015). Yet few studies exist on the extent to which such plans have been realized.

The scope and profile of remittances may diverge between managed and unmanaged migration. First differences in the scope of remittances will emerge if the level, regularity, and formality of income are different. Recent estimates suggest that illegal migrants have quite different wage level and consumption patterns than those of official migrants (Dustmann, Fasanai, and Speciale 2016). Other differences most likely emerge from the dissimilar time horizons of the two migration types. Temporary migrants are likely to have different objective functions and outcomes with regard to labor supply, savings level and structure, and remittances (Dustman and Gorfach 2016; Dustman 1997).

Unmanaged migrants with limited visas may intend to return but eventually stay and vice versa. Both cases may trigger higher transfers to the host country at the margin. For migrants who stay and are reunited with their core family in the host country, remittances typically get smaller and may eventually cease (see Nyarko and Wang 2016 for recent evidence on expatriates in the United Arab Emirates).

Managed migrants have a limited time horizon in the host country in most cases, reflecting legal restrictions as well as self-selection. As a result, their scheduled return provides strong incentives for high remittances to both support their family and prepare for investment opportunities back home. The scattered empirical evidence broadly supports this hypothesis.

### 2.2.3 Skills

Working abroad in a more advanced economic environment promises to positively affect migrants' skills before they leave the host country and upon return, benefiting both countries. The main effects identified in the migration literature are the following.

The first effect is on the skills that potential migrants may receive even if they never migrate. The prospect of migration and the skill level needed to be selected and successful create an incentive for skills formation (Stark 2004). This is akin to a lottery in that one needs to buy a ticket to win, but not everybody wins. There is rising evidence on the working of such an incentive scheme. If the scheme is working, a related effect is the emergence of specialized schools and vocational training institutes for training potential migrants. Once established, such training institutions serve not only potential migrants but also broader population groups.

The second and related effect is that enhanced skilling may not only increase skills of on-stayers but overcompensate for the "brain drain" of skilled workers who leave the country, leading to an overall "brain gain" for the home country. The evidence for professional specialists such as nurses and doctors is mixed, with indications of both brain drain and gain. For mid-skilled manual and non-manual jobs, the necessary disaggregate database is too difficult to establish to provide reliable conclusions.

The third upskilling effect occurs in the host country due to simple on-the-job training, firm- and non-firm-specific formal training, and firm-provided external training courses on a mandated or voluntary basis. Only very slim evidence indicates the degree to which training takes place beyond the job or the degree of upskilling. For some trades and countries, some share of the foreign labor force receives training beyond on the job, but for the majority of foreign work force this does not seem to be the case.

Such upskilling measures have a potential effect on the home country if returnees have new qualifications that the home country can and is willing to use. But the mere availability of skills may not lead to their effective use: the returnee may prefer to work in a different sector; information asymmetries arise between the potential home firm and the returnee; financial borrowing restrictions may prohibit the firm from turning engagement plans into reality, etc. International experience suggests that management of migrants upon return is necessary to make best use of their new or enhanced skills.

Again, differences likely exist in the skilling effects and country impacts between unmanaged and managed migration. A full-fledged managed migration approach is more likely than an unmanaged one to offer migrants the professional and social skills host countries require, as this can and often is part of a BLA. Such an agreement may also include commitments by the host country to specific forms of formal training for migrants. Similar commitments in foreign direct investment (FDI) agreements (e.g., about the increasing use of domestically produced components under quality support arrangements) seem to have been effective. And a managed migration approach should be more able than an unmanaged one to offer support for return migrants to find jobs given their new or upgraded skills.

#### 2.2.4 Other Effects of Migration

The migration literature mentions a number of other effects of migration that may support or hinder economic development and growth, and include:

- Balance of payment effects: Remittances constitute an inflow of foreign exchange that can be sizable and may exceed the level of export earnings. Such an inflow relaxes a foreign exchange constraint and allows for the import of investment goods (e.g., for construction of infrastructure and housing), which should foster investment. Most developing countries are foreign exchange-restricted and Afghanistan is heavily reliant on imports (Bird 2016). The inflow may, however, also increase the demand for nontradables compared to tradables, thus increasing the exchange rate and rendering the export sector less competitive (“Dutch disease” phenomenon).
- Collateral for international borrowing: Remittances can be used as collateral, as seen in Mexico, Brazil, and Turkey. The diaspora of older and newer migrants may also invest in bonds issued by their old home country, as in Israel, India, Lebanon, and Sri Lanka (Ketkar and Ratha 2010).
- Entrepreneurship and external trade: Migrants can help to spot business opportunities in their home country and have resources to initiate the investment. They may also spot trade opportunities between home and host countries and have the networks to exploit them.
- Wages of those left behind: The temporary and (even more so) permanent export of workers should lead to a leftward shift of the labor supply curve and an increase in the wage rate of those remaining. However, if un- and underemployment are widespread in the country of origin, the effect of migration on domestic wages will be negligible or at best relevant at a regional level with low prior local unemployment.

These other effects are ignored in the design of policy scenarios herein, as the effect of additional managed migrants will generally be small and any possible balance of payment effects will be gauged by the CGE model.

The policy scenarios of managed migration in section 5 and the CGE policy simulations in Chapter 6 focus on three main variables: (1) the scope of additional migrants above the migration baseline due to a managed approach; (2) the impact of this migration change on remittances above the remittance baseline; and (3) the impact of the migration approach on the skills acquisition of local and returning migrants.

# 3

## Exploring the Supply Side of Afghan Migration

Section 3 presents the supply side of migration from Afghanistan to guide the assessment and projection of how many labor migrants would potentially be available for a managed migration approach in the near future. It sketches past trends of Afghanistan's complex migration history based on macro migration data, presents key findings on the Afghan migration structure from very recent household survey data, and offers a brief demographic and economic background for the projections of future migration pressure in Afghanistan. The section draws on three comprehensive background papers (BGP 2A, 2B, and 2C<sup>9</sup>) but does not attempt to summarize them in full. This policy report only offers a focused understanding of key migration developments and issues to better understand the assumptions around the baseline and policy scenarios presented in section 5.

### 3.1 International Labor Mobility for Nationals: Macro-Level Experience and Evidence

This subsection summarizes the macro picture of migration to Afghanistan, looks into recent and current stocks and flows of migration, and presents the links between migration and remittances and their scope.

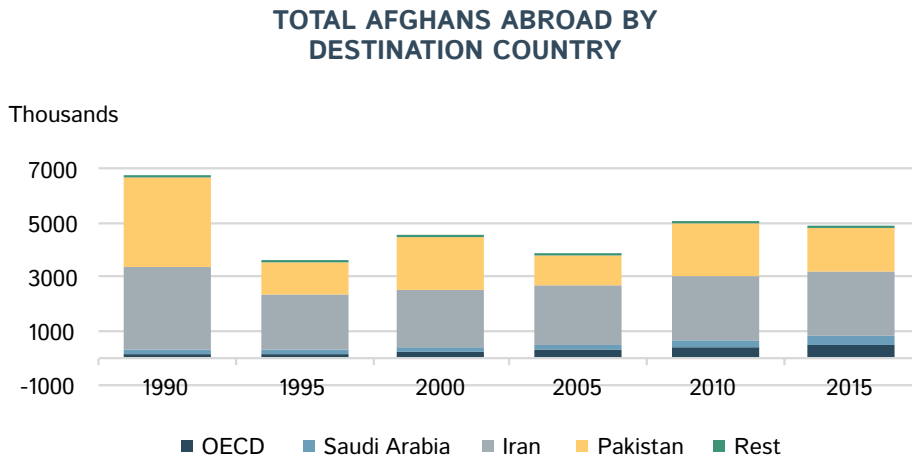
#### 3.1.1 Historical Patterns of Afghan Migration and Current Situation

Afghanistan's long history of migration dates back centuries. In recent history, emigration dramatically increased during the Soviet occupation of 1979–1989, with mass movements of refugees. At its peak in 1990, around 6.7 million Afghans had left the country and were living abroad (Figure 3.1), representing more than half of the total population living in Afghanistan at that time (around 11.7 million). After a significant drop at the beginning of the 1990s led by inflows of refugee returnees into the country, the trend in the stock of Afghan migrants abroad was again intermittent but upward. The number of Afghan migrants abroad was estimated at around 4.8 million in 2015. By country of destination, indicative data from the United Nations Department of Economic and Social Affairs (UN DESA 2015) suggest that neighboring Iran (2.35 million) and Pakistan (1.6 million) host more than 80 percent of the total Afghan population abroad, while the rest currently reside in Organisation for Economic Co-operation and Development (OECD) countries (460,000) and Saudi Arabia (360,000). Finally, some 50,000 Afghans live in other countries, mainly in India and Central Asian countries.

---

<sup>9</sup> For details, please see each individual paper.

**Figure 3.1: Trends in total Afghan migrants abroad by country of destination, 1990–2015**

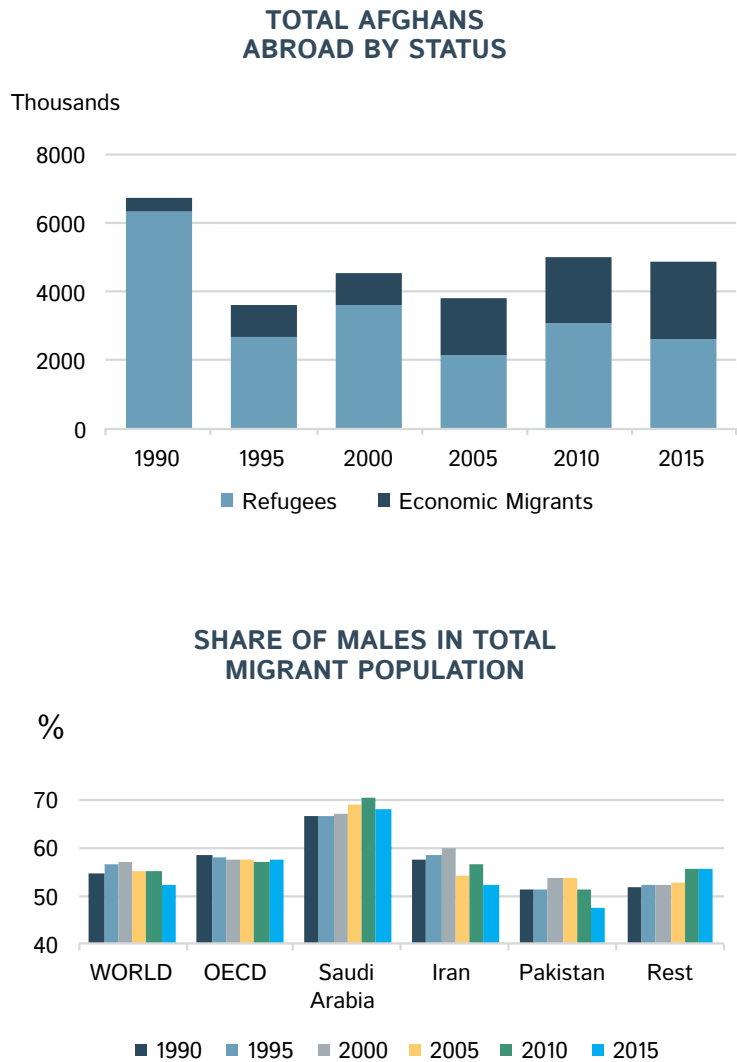


Source: UN DESA 2015.

Migration patterns in Afghanistan are shaped by a complex combination of protracted conflict, food insecurity, natural disasters, and socioeconomic factors such as the limited absorption capacity of the domestic labor market, wage differentials (in particular with neighboring Iran), and poverty. As a result, it is hardly a single factor that explains the migration decisions of Afghans, which often blurs the distinction between refugees and economic migrants. Despite these caveats and limitations, it is useful to disentangle and approximate the primary purpose of migration. Figure 3.2 shows that the majority of Afghan migrants during the last decades were refugees, although economic migrants are increasingly prevalent, representing close to half of the current migrant population (left panel). Within the migrant population, men dominate (right panel).



**Figure 3.2: Trends in Afghan migrants abroad by status and gender, 1990–2015**

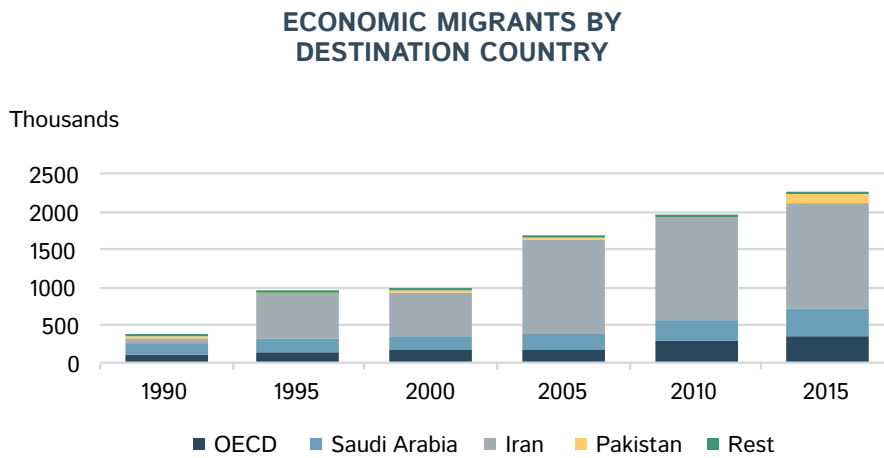


Source: BGP 2A based on UN DESA 2015 and UNHCR 2015.

While in 1990 Afghanistan had around 380,000 economic migrants, this number rose to close to 1 million in 2000 and to 2.25 million in 2015. This trend represents a net annual flow of 85,000 Afghans over the last 15 years.

By country of destination, Iran hosted 1.4 million labor migrants in 2015, nearly two-thirds of the total workers who migrated from Afghanistan in search of better economic opportunities. The other most important destinations for economic migrants were GCC countries (380,000 workers, mostly all in Saudi Arabia) and OECD countries (350,000 workers). Among the latter, the countries with the most Afghan economic migrants before the migration wave of 2015 were Germany (72,000), the United States (62,000), the United Kingdom (59,000), Canada (30,000), and the Netherlands (28,000). In some countries like the United States, these figures only count first-generation Afghan migrants, as those born in the country are considered nationals. This contrasts with GCC countries, Iran, and Pakistan, where Afghan migrants and their children barely obtain the nationality of the host country, and thus the second and third generations are still registered as Afghans.

**Figure 3.3: Trends in economic/labor migrants from Afghanistan, 1990–2015**



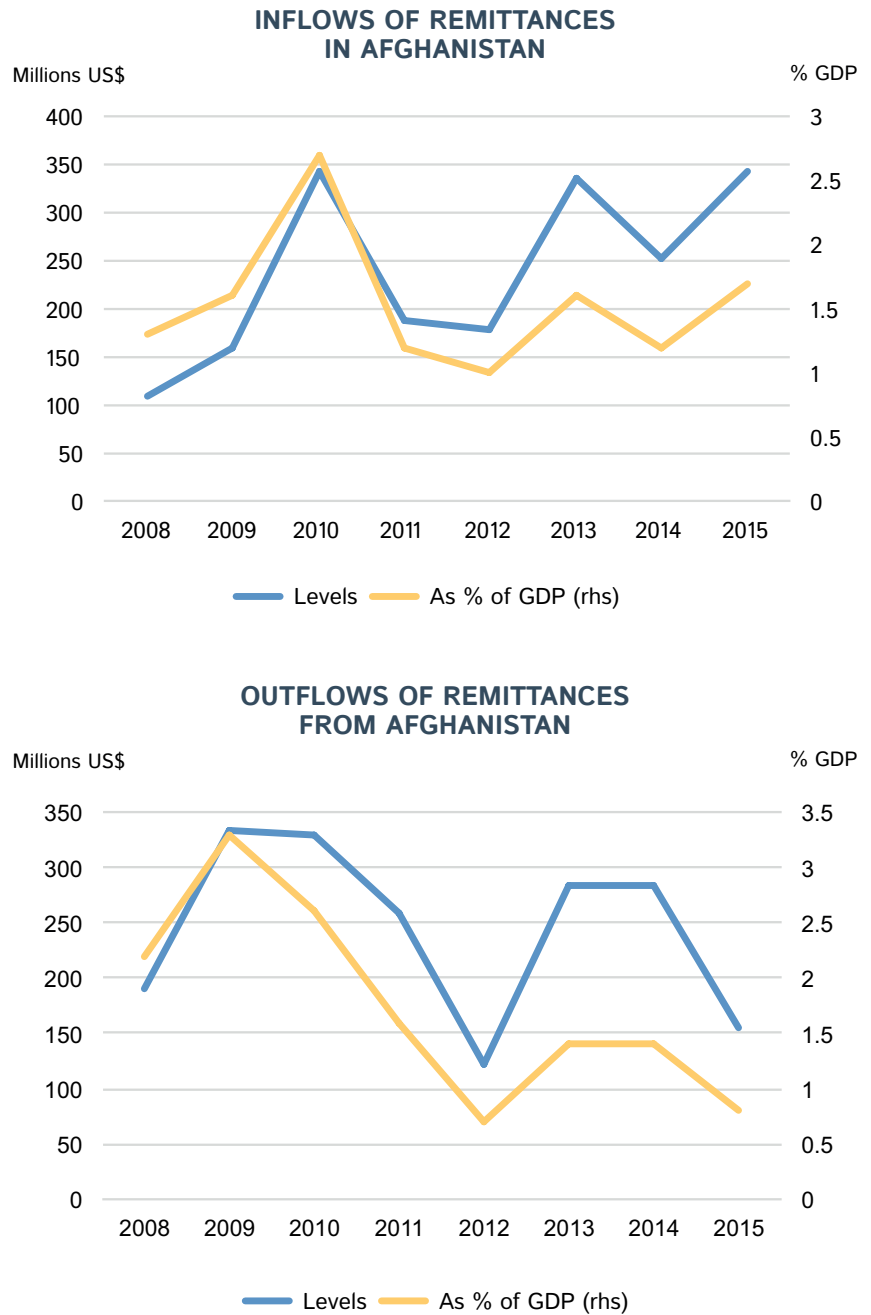
Source: BGP 2A based on UN DESA 2015 and UNHCR 2015.

### 3.1.2 Migration and Remittances

No reliable data exist on remittances in Afghanistan. The Afghan financial sector includes banks and microfinance institutions, money transfer organizations (MTOs), money service providers (MSPs) such as electronic money institutions (EMIs), and hawala businesses (see below) as well as foreign exchange dealers (IOM 2014). Yet the continuous conflict in the country has weakened and limited development of the formal financial sector (Maimbo 2003). As a result, a significant share of remittances in Afghanistan are transferred through a well-developed network of informal brokers, called “hawala” dealers, that are not monitored and included in official statistics. Furthermore, responses in household surveys with regard to money are typically biased downward as mistrust leads people to underreport their money transactions. As a result, official data presented in Figure 3.4 understate the real magnitude of remittances to and from the country.

**10** In 2015, around 400,000 Afghans were found to be illegally present in Europe, representing the second largest group after Syrians and 20 percent of the total of 2 million illegal migrants in Europe (Eurostat 2016). This represents an eightfold increase with respect to 2014. The vast majority were located in arrival countries like Greece (213,000) or Hungary (98,000), or destination countries such as Germany, Austria, and Sweden. In Germany, arrivals of Afghan migrants rose from 7,000 to 53,000 (half of the estimated Afghan population in the country until then).

**Figure 3.4: Flows of remittances from and into Afghanistan, 2008–2015 (in US\$ and % of Afghan GDP)**



Source: Da Afghanistan Bank and World Bank.

For illustration and exploration Table 3.1 presents simple correlations between the inflows of remittances to Afghanistan and several key variables. Remittances are highly correlated with the stocks as well as net flows of refugees abroad (+0.65 and +0.6, respectively). For example, in 2011 the stock of refugees dropped by almost 400,000, mainly due to return migration from Iran. During the same year, remittances were reduced by almost 50 percent, contrary to the general upward trend observed during the decade. Remittances are also positively correlated with the GDP growth of receiving countries, which can be considered a proxy for the evolution of economic conditions and earnings. Remittances to Afghanistan were negatively correlated with the evolution of the Afghan economy (-0.4). This pattern highlights the role of remittances as part of the income-generating as well as risk-diversifying strategy of Afghan families.

**Table 3.1: Correlation between inflows of remittances in Afghanistan and key variables, 2008–2015**

Annual GDP Growth					Number of Migrants	
OECD countries	Gulf countries	Iran	Pakistan	Afghanistan	Stock	Net Flows
0.59	0.14	0.18	0.03	-0.42	0.65	0.60

Source: Own calculations based on UN DESA, UNHCR, and World Bank data.

Various estimates exist on the “true” size of remittances to Afghanistan. The International Fund for Agricultural Development (IFAD) estimated the inflow of remittances in 2006 to be around US\$2.5 billion, or 29.6 percent of GDP (Orozco 2007). In a similar analysis in 2012, IFAD estimated that remittances had increased to US\$3.2 billion, although the rise was lower than that of nominal GDP growth, which reduced the ratio to 16.3 percent of GDP. These studies calculated remittances based on three estimates: the total number of migrants living abroad, the percentage of migrants who remit money, and the annual value of remittances sent per economic migrant based on household data. Another simple approximation can be done with data on the share of registered financial intermediaries. According to informal communication with representatives of Da Afghanistan Bank, around 200 hawala dealers are registered out of an estimated total of 1900–2500 dealers. Under the strong assumption of similar levels and trends of transactions among the different dealers, this would imply that real remittances are 10 times the official figures, pointing again to around US\$3–3.5 billion (or 15–18 percent of the Afghan GDP). Both estimates are on the very high side. Section 5 returns to these and other estimates for the policy scenario baselines.

### 3.2 International Labor Mobility for Nationals: Micro-Level Experience and Evidence

This subsection summarizes the micro picture of labor market and migration in Afghanistan and looks into domestic labor market conditions, the profile of international Afghan returnees and seasonal migrants' families, differences between international migrants and nonmigrants, and the profile of international migrants abroad.

#### 3.2.1 Domestic Labor Market Conditions

Afghanistan's labor market is under stress, and is finding it increasingly difficult to fully absorb the large number of new, young entrants. According to the Afghanistan Living Conditions Survey (ALCS 2013/2014), around 15 million Afghans are of a working age of 15 years or above. Among those, barely more than half actively participate in the labor market (54.5 percent), with large differences between men and women (Table 3.2). While only 1 in 5 male Afghans are inactive, up to 70 percent of women are not engaged in the labor market, a very large gender gap even by international standards. The participation rate is higher for household heads, among whom the vast majority are men, with only 1 in 10 inactive. In the absence of any social protection system, high labor force participation among household heads can be understood more as a survival strategy, as idleness is not an option. The data for Afghanistan suggest a downward-sloped labor supply curve, whereby a lower wage price triggers a higher labor supply.

**Table 3.2: Labor market conditions in Afghanistan**

Status	Total +15	Household Head	Male	Female
Employed	32.8%	59.0%	51.0%	14.0%
Underemployed	9.7%	17.3%	15.0%	4.2%
Unemployed	12.0%	11.9%	12.1%	11.9%
Inactive	45.5%	11.9%	21.8%	70.0%
<b>Skill Level</b>				
High-skilled White-collar	6.4%	7.8%	6.8%	4.8%
Low-skilled White-collar	17.8%	23.2%	22.6%	2.0%
High-skilled Blue-collar	55.5%	41.6%	44.9%	90.6%
Low-skilled Blue-collar	20.3%	27.4%	25.7%	2.5%
<b>Sector</b>				
Agriculture & Mining	45.5%	36.9%	39.3%	66.5%
Manufacturing	8.2%	2.8%	3.4%	24.4%
Construction	13.5%	17.9%	17.3%	1.0%
Trade	11.2%	14.7%	14.3%	0.9%
Services	21.4%	27.7%	25.7%	7.3%

Source: BGP 2B based on ALCS 2013/2014.

Four in five economically active Afghans are employed, but this figure masks problems of underemployment, informality, and vulnerability. Almost one in four Afghans employed work less than the average 40 hours per week and would be willing to work more but do not find additional work. As a result, only 60 percent of the economically active are "gainfully employed" (that is, working the equivalent of a fulltime government position (40 hours)) or do not want to or cannot work more, with the other 40 percent either unemployed or working less than they would like. In a context where the vast majority of workers are either farmers or daily laborers, the inability to work enough hours is another sign of stress in the labor market (albeit geographic and weather cycles may not even allow a 40-hour work week in agricultural employment in large areas of the country).

### 3.2.2 Profiles of International Afghan Returnees and Seasonal Migrants' Families

Like previous rounds of the National Risk and Vulnerability Assessment [NRVA] (2007/08 and 2011/12), the recent ALCS (2013/14) collects data on “in-migrants” and “out-migrants.” An international in-migrant is defined as someone who lived outside the country, whether it was in 2011, in 2001, or when he/she was born, but now lives in Afghanistan, or someone who states that he/she has returned from refuge overseas. The ALCS can also capture seasonal migrants who currently live in Afghanistan but spend several months of the year abroad. By this definition, and due to the structure of the survey, which is only carried out in Afghanistan, the actual size of the Afghan diaspora currently residing overseas is underestimated, particularly that of refugees, as the survey is not able to capture entire households that migrate to other countries.

These in- and out-migrants can be further differentiated between voluntary (economic) migrants and force-displaced migrants (refugees). This analysis differentiates four types of international migrants: (1) refugee returnees (refugee in-migrants); (2) economic migrant returnees (economic in-migrants); (3) economic out-migrants/emigrants (those households that report having a member currently residing abroad); and (4) international seasonal workers (considered economic out-migrants, but with a more temporal pattern).

Of the total 3.8 million households in Afghanistan in 2013/2014, a sizeable proportion (16 percent) had members who were international migrants. This figure comprises 9.3 percent of households that were refugees and returned to their home country, and 11.2 percent of economic migrants (Table 3.3). The difference (about 4.5 percent of households) had family members who were both force-displaced and economic migrants.

**Table 3.3: Share of international migrants among households and the total population**

	International Migrants					
	Total	Refugees		Economic Migrants		
		Returnees	Total	Returnees	Seasonal workers	Current Member abroad
% Households	16.0%	9.3%	11.2%	6.7%	2.3%	2.9%
Among which all members migrants	40.4%	71.5%	1.3%	2.4%	0.0%	0.0%
% individuals	8.1%	7.5%	2.2%	1.0%	0.6%	0.6%
Number of individuals	2,267,772	2,101,517	696,888	616,445	168,121	160,497

Source: ALCS 2013/2014.

Most migrants live in neighboring Iran and Pakistan, although the GCC has gained importance among the current wave of economic migrants (Table 3.4). Refugee returnees come mostly from Pakistan (61 percent) and to a lesser extent Iran (35 percent), in line with aggregate data from United Nations High Commissioner for Refugees (UNHCR) on Afghan returnees.

**Table 3.4: Place of destination for Afghan international migrants (percent)**

Share Host Country	International Migrants					
	Total	Refugees	Economic Migrants			
		Returnees	Total	Returnees	Seasonal workers	Current Member abroad
Pakistan	52	60	34	48	8	4
Iran	43	36	57	48	83	61
Gulf & other MENA	2	1	5	1	8	18
OECD	3	2	4	2	0	16
Other	1	1	1	1	1	1

Note: MENA = Middle East and North Africa. Source: ALCS 2013/2014.

### 3.2.3 Differences between International Migrants and Nonmigrants

Household data offer a rich set of information on the demographic and economic differences between households with international migrants and nonmigrants, with the following incomplete summary (see BGP 2B for more details, including figures and tables).

International migrants have slightly smaller households and are somewhat older than the nonmigrant population. While nonmigrant households have 7.4 members on average, that figure reduces to 7.2 among refugee returnees, 6.1 among economic returnees, and 5.6 among households with seasonal workers. On the contrary, households with an out-migrant have bigger households (7.8 members).

In-migrants are more educated than the general population, while the opposite is true for households with seasonal workers and members currently residing abroad. In any case, the overall education for all groups is very low. Two-thirds of Afghans above 15 years old from nonmigrant households are illiterate and have no formal education. This figure is similar for out-migrant families, while for returnees (both economic and refugee) the literacy rate is higher, reaching 50 percent.

Migrant families face more difficulties finding employment opportunities and take more time to do so, with higher rates of unemployment and underemployment. The unemployment rate among returnees stands at around 30 percent, similar to that of families with members living abroad, but significantly higher than among nonmigrants (20 percent).

Among those employed, migrant households have a different profile in terms of occupational skill level and sector of activity. On one hand, returnees are overrepresented among the higher-skilled, non-manual/white-collar jobs (31 percent compared to only 24 percent among nonmigrants), in line with their better educational achievements. On the other hand, households with out-migrants have less access to highly qualified jobs, with only 10 percent of their population in non-manual work.

Economic returnee families have earnings similar to those of nonmigrants, once controlling for other relevant factors, while refugee returnees earn 7 percent less. Refugee returnees have higher earnings than nonmigrants, even after taking into consideration differences in socioeconomic characteristics like gender, age, and education. However, these differences revert once controlling for regional disparities, which suggests that returnees are able to earn higher salaries because they disproportionately resettle in areas with higher economic opportunities like Kabul. Regarding out-migrants, both seasonal workers and families with members abroad have lower earnings, the latter case due to the lower number of hours worked.

International migrant returnees are clustered disproportionately on the higher quintiles of income and spending, thus showing better economic conditions than the overall population in the country. For example, only 12 percent of returnees (both refugees and economic migrants) belong to the poorest quintile of the income distribution, while 31 percent are in the top 20 percent. Despite earning lower wages, families with members abroad are more prone to be among the higher quintiles in income, which highlights the important role played by other sources of income, such as remittances.

Afghans have moderate returns to education, with 6.7 percent higher wages for each extra year of schooling, significantly below estimates for other low-income or neighboring countries.<sup>11,12</sup> In a context of generally low education levels, the modest returns observed suggest that there is not a high demand for skilled workers in the country (and lack of education does not seem to be a binding constraint to growth). However, wide disparities arise by gender – men have only a 6.2 percent return while women have a 10.4 percent return. The scarcity of educated women may cause this gap.

#### **3.2.4 Profile of International Migrants Abroad**

The ALCS provides only indirect information on age, gender, and location of out-migrants through their relatives living in Afghanistan, and it cannot reach entire families internationally displaced. Thus the project explored household surveys or administrative data in host countries for more detailed country-specific data on Afghan migrants. The information base remains quite patchy, nonetheless.

Of Afghanistan's neighboring countries, only Iran has conducted recent household surveys (in 2006 and 2011) that offer details on the demographic characteristics and labor market outcomes of Afghan migrants. The results suggest that they are doing well compared to their compatriots but their legal status confers restrictions (such as on higher education opportunities) that can be traced in their labor market outcomes.

The U.S. Census of 2010 provides a complete profile of Afghans residing in the country. According to this census, the United States is home to 45,800 first-generation Afghan immigrants, and another 30,000 second-generation migrants (those born in the United States but with Afghan parents). Afghan migrants have lived in the United States for a long time, with an average duration of more than 17 years. Around three in five Afghans have acquired U.S. citizenship, with no intention of returning to their country of origin. The long-dated migration under different circumstances is visible in Afghans' very low level of illiteracy and a tertiary education level equal to that of the rest of the U.S. population. This results in wage differences (uncorrected for skills, etc.) with Afghanistan of about 8 to 1 (Figure 3.5).

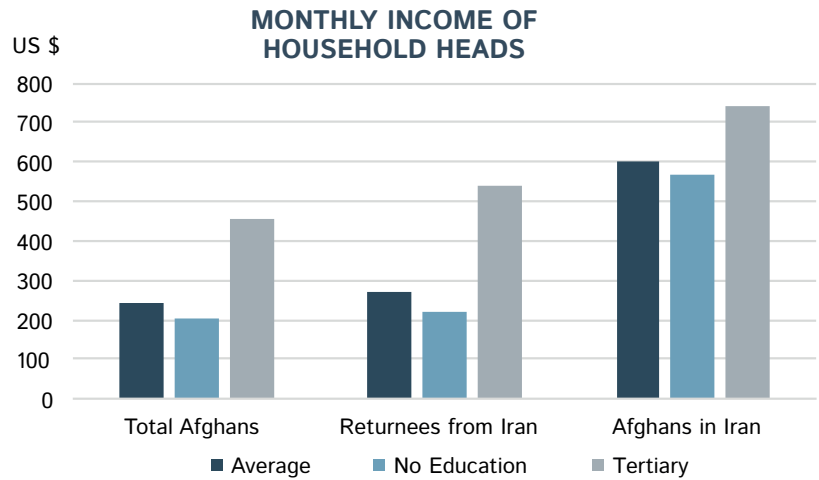
---

<sup>11</sup> Returns to education are obtained through a standard equation regressing years of education on wages, controlling for regional and other socioeconomic characteristics (age, marital status, and household size).

<sup>12</sup> The returns in low-income countries worldwide are around 10.5 percent, and at 9.6 percent are slightly lower for the South Asia region (Montenegro and Patrinos 2013).



**Figure 3.5: Comparison of monthly income of Afghans in the United States and Afghanistan**

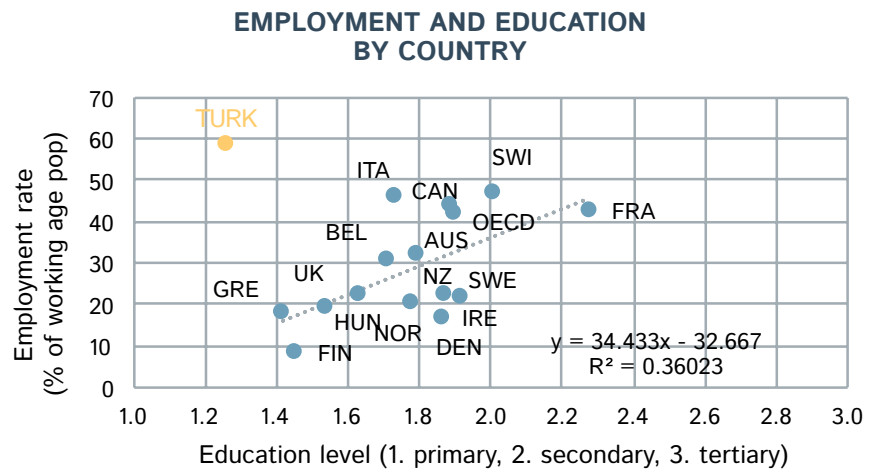


Source: ALCS 2013/2014 and U.S. Census 2010.

The Database on Immigrants in OECD Countries (DIOC) provides information on the education and labor market outcomes of Afghans living in developed countries. It uses information collected from different censuses from the beginning of the 2000s and as a result it does not provide details on the more recent wave of migration flows.

Attempts to access specific data sources in countries with a relatively large Afghan migrant population, such as Austria and Germany, for more details on demographic characteristics and labor market outcomes in the past as well as more recent migration waves were not very successful. For example, detailed data on education levels were not shared as they are considered unreliable. The available data on labor market status suggest Afghans' low labor force participation and high unemployment in OECD countries. This is consistent with the positive correlation between Afghan migrants' education level and labor force participation in OECD countries (Figure 3.6).

**Figure 3.6: Correlation of education and employment rates of Afghan migrants in OECD countries**



Source: DIOC OECD.

Note: The OECD average does not include Germany.

The exception in Figure 3.6 is Turkey, where Afghan migrants have the lowest education level but highest labor force participation (almost 60 percent). In Turkey migrants have access to the formal and informal labor market but little access to social welfare programs.

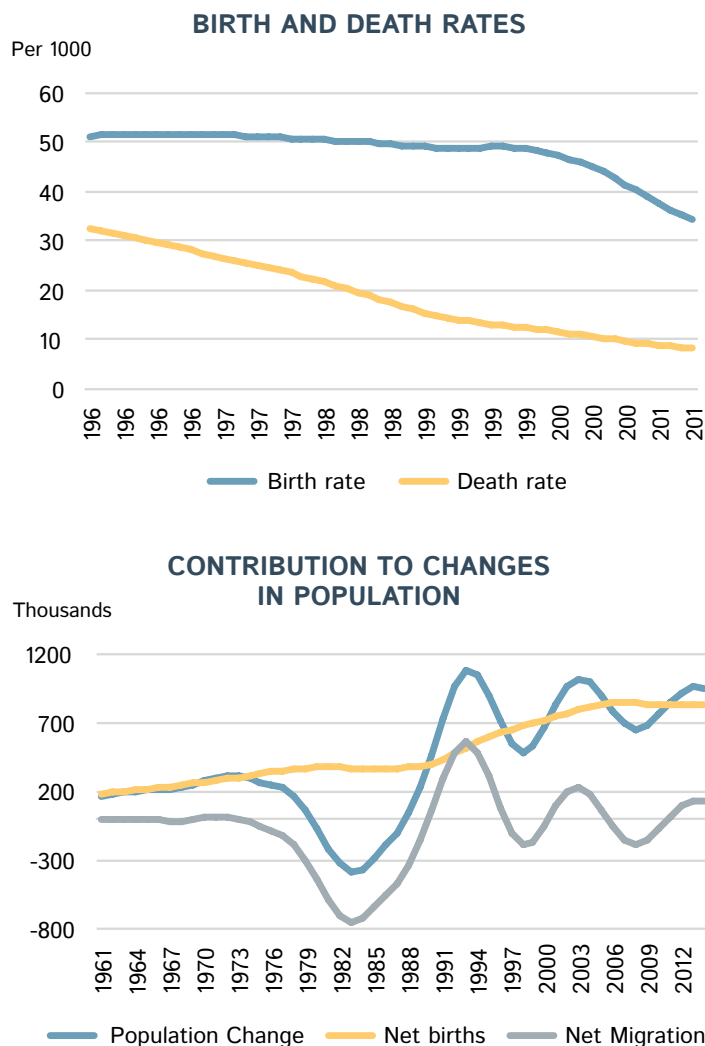
### 3.3 Demographic and Economic Background for Projections of Migration Pressure

This subsection summarizes the demographic and economic developments for Afghanistan that present the base for the projected migration pressure for the years 2015 to 2030. It presents a brief picture of the demographic drivers, demographic projections, and gaps between supply and demand. More details can be found in background paper BGP 2C and selected issues are taken up again in section 5 and Annex B.

#### 3.3.1 Drivers of Demographic Structure

According to UN DESA, the total population in Afghanistan was 32.5 million in 2015. Afghanistan’s current demographic structure, similar to that of other least developed countries, is still at an early stage of demographic transition. Until the early 2000s, death rates declined rapidly in the country while birth rates were stable at a very high level until recently (Figure 3.7). As a result, this period was characterized by rapid population growth. Since 1960, the population has more than tripled, growing at an average rate of 2.3 percent annually, making Afghanistan one of the fastest growing countries in the world. During the last decade, the country started a second phase, characterized by declining natality. This is slowing the pace of total population growth, but the population is nevertheless still surging. The dynamics of these demographic drivers lead to a bottom-heavy age pyramid of perfect triangular shape.

**Figure 3.7: Fertility, mortality, and migration rates and their impact on Afghan population growth, 1960–2014**

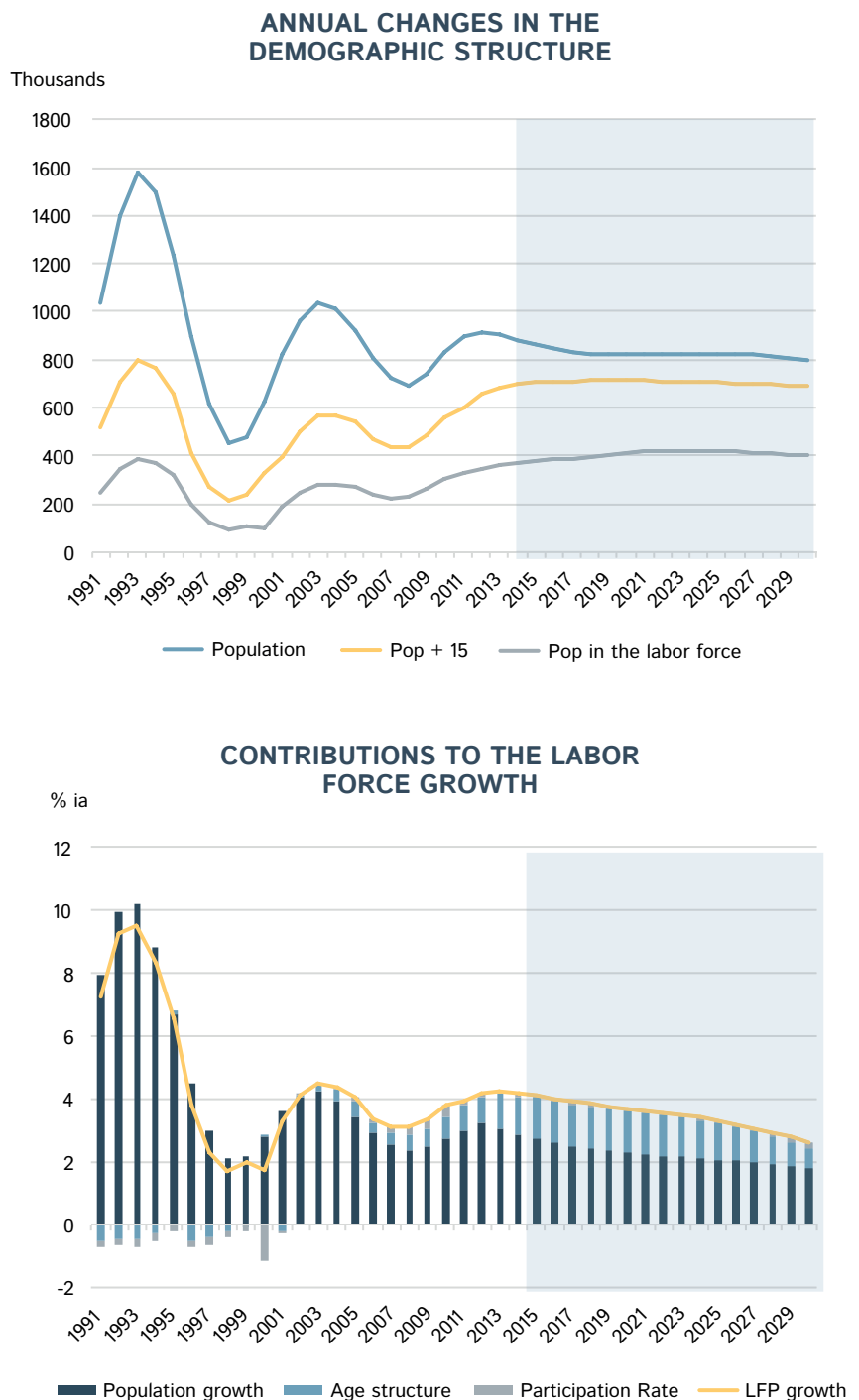


Source: UN DESA.

### 3.3.2 Demographic Projections of Afghan Labor Supply

The Afghan population will continue to grow dramatically in the next decades, doubling its size from 28.4 million in 2010 to 56.5 in 2050 (UN DESA 2015). In line with the rapid growth of the population, the Afghan labor force grew at a fast pace during the last decades. ILO estimates that the annual increase in the labor force reached around 400,000 people in 2015 (out of a birth cohort of 800,000 Afghans), much higher than the 200,000 observed at the turn of the century (see left panel of Figure 3.8). The projections for the next 15 years maintain an average net flow of 400,000 new people entering the labor force every year.

**Figure 3.8: Projected changes in population, population structure, and labor force participation, 1992–2020**



Source: BGP 2C based on based on UN DESA and Laborsta ILO data.

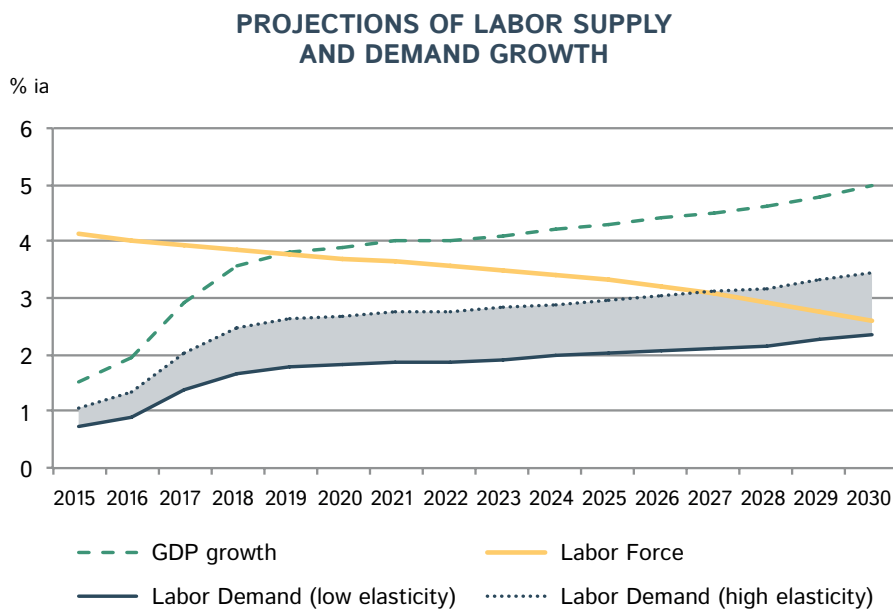
### 3.3.3 Projections of Labor Demand and Derivation of the Supply–Demand Gap

National labor demand is closely linked to GDP growth, which was high for about a decade, ending in 2012. Since then, GDP growth has been 2 percent and below. For the period 2016–2030, the World Bank assumes a gradually rising growth path, reaching 5 percent by 2030. The shorter IMF projection period predicts a similar growth rate of 4 percent by 2018 and constancy thereafter.

Projected annual GDP growth can be translated into projected annual labor demand by applying employment elasticities that are informed by past developments. The analysis uses the assumptions applied by the ILO: a low employment elasticity of 0.46 estimated for the period 2003–2012, and a high employment elasticity of 0.69 for the period 2012–2014, when employment growth continued while growth declined.

Figure 3.9 shows the projected growth rates of labor supply and demand under the two scenarios of elasticity of employment to GDP growth. Labor supply progressively slows its rate of growth from 4 percent to 2.8 percent over the next 15 years. In turn, the World Bank projects a slow and moderate recovery of economic activity, from 1.5 percent in 2015 to 5 percent in 2030. Even the more optimistic scenario of a higher labor intensity of economic growth would entail a subdued acceleration of labor demand from 1 percent to 3.5 percent annual growth, unable to match labor supply growth until 2027. In the more negative scenario of a lower elasticity of employment to growth, the growth rate of labor demand would not be higher than 2.4 percent in 2030, insufficient to provide enough jobs to cover the entire supply of labor even by that time.

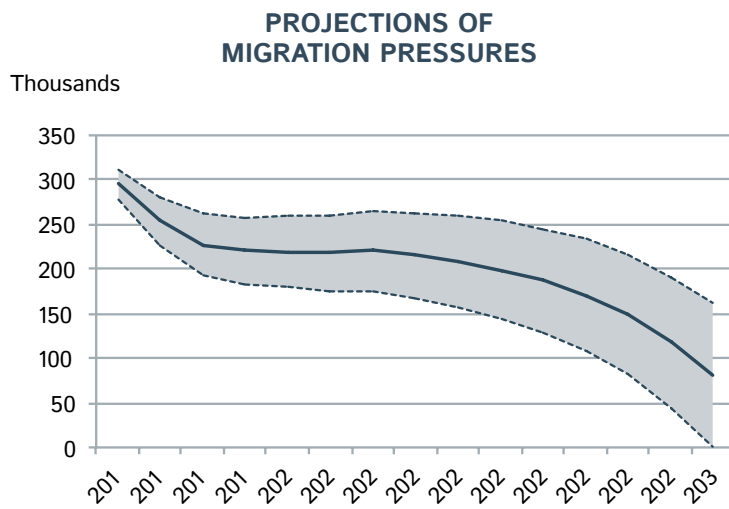
**Figure 3.9: Projected annual flows of labor supply and demand growth, 2015–2030**



Source: BGP 2C based on UN DESA, Laborsta ILO, and IMF data.

In levels, the projections quantify the amount of unmet supply of labor that would need to migrate for economic reasons in the next 15 years. Among the 400,000 Afghans who will enter the labor market every year, the high-elasticity scenario predicts that only 30 percent will be absorbed in 2016, increasing slowly until demand is able to absorb them in 2030 (Figure 3.10). This could exert strong pressures to migrate, averaging around 150,000 people annually and 2.2 million in total between 2016 and 2030. Under the scenario of low intensity of labor, the absorbing capacity of the economy would be even lower, about 22 percent in 2016 up to 60 percent by 2030. As a result, migration pressures would average 250,000, adding to more than 3.7 million people during the next six-year period. The average of both scenarios points to an environment of high migration pressures in Afghanistan, at an expected 200,000 migrants per year for the next decade and a half.

**Figure 3.10: Projected annual flows of labor supply and migration pressure, 2016–2030**



Source: Own calculations, based on UN DESA, Laborsta ILO, and IMF data.



# 4

## Exploring International Demand and Institutional Requirements

Section 4 presents the international demand side of managed migrant labor and highlights the bilateral and national requirements to make managed migration happen. To this end, the first subsection summarizes the identification of potential host countries that may engage with Afghanistan in a BLA/MoU and receive Afghan migrant labor. The second subsection describes the many institutional requirements needed for managed migration to be successful.

The section draws on two comprehensive background papers (BGP 3A and 3B) but does not attempt to summarize them in full. The summary should help to understand the key institutional constraints that may restrict the quantity of managed labor leaving, migrants' host country choices, and migration outcomes. This in turn should yield a better understanding of the assumptions around the baseline and policy scenarios presented in section 5.

### 4.1 Potential Host Countries for Managed Migration

This subsection identifies and evaluates potential host countries for managed labor migration flows from Afghanistan. To understand how countries were identified, the subsection offers a brief overview of the applied methodology and presents the assessment for each candidate country according to the criteria applied. A summary assessment identifies Turkey and GCC countries as frontrunners.

#### 4.1.1 Methodology

Identifying potential host countries is a delicate process, particularly as vast information gaps and uncertainty surround the subject matter. As such, any attempt to develop a methodology for prospecting host labor markets is bound to involve guesswork and lead to imperfect and subjective assessments. Sending countries are often unable to identify even their current share in an overseas labor market, much less predict their ability to expand participation in an identified market. This is complicated by poor existing data on international migration, as well as uncertainty surrounding forthcoming economic and political trends. This subsection describes the applied methodology, which starts by identifying critical variables in prospective markets and offering an approach to weighting them to create an entry strategy for promising markets.

The five key groups of variables identified for selecting and targeting potential host labor markets include: (1) demographic trends; (2) labor market trends; (3) emergence or decline of competition; (4) political forces; and (5) preferences in the host country. Each indicator is elaborated upon below.

**Demographic trends** relate to the relative supply of labor in both the sending country and prospective host country. Sending countries such as Afghanistan face an increasingly large national youth population entering the workforce. Yet labor markets in many sending countries are not growing quickly enough to absorb their youth population, leading to surplus labor and migration pressure. Resource-based economies need labor to complement their indigenous supply, and advanced economies are experiencing aging populations due to declines in fertility rates and gains in longevity, leading to a reduction in the working-age population. This offers room for demographic arbitrage.

**Labor market trends** look more toward labor demand factors in the host country. In particular, this variable looks at changes in the host country economy to identify where demand for foreign workers is most likely. Changes in economic sectors are a critical component of this – including decline of traditional sectors, growth of new ones, or economic diversification within sectors. Examples may also include expansion and contraction of public infrastructure and government-funded mega-projects, or changes in the required skill composition of the host country. Labor market trends also include factors affecting overall demand in host as well as sending countries, such as the level and implementation of a minimum wage and a comparison of wages and conditions in countries of destination. Labor market

trends also require looking at the skills match between labor supply and demand; even many low-skilled positions in receiving markets require minimum skills such as literacy and potentially basic technical skills. Mid-skilled positions may require language skills in the language of the host country or more advanced technical skills that meet international standards of training. As such, labor market analysis must ensure that the skills available in the source country match those demanded in the host country, or if not, that training programs can be developed to promote these skills.

The **competitive landscape** is an important determinant particularly for low-skilled foreign labor demand. Workers at the lower end of the skill spectrum are often viewed by host country employers as largely interchangeable (e.g., South Asian workers in the GCC). As such, competition can be fierce between sending countries to gain market share in key receiving markets. The emergence or decline of competition may be related to historic flows, relationships with recruiters in different source and host countries, quality and reputation of migration management institutions, demographic and labor market dynamics in source countries, and relative wages accepted by source country workers and governments.

**Political forces** relate to political economy issues affecting the willingness of host country governments or employers to bring in foreign workers and from which part of the world. A common political trend is resistance of the host country population to admission of foreign workers. This may take a softer form, such as political pressures particularly during election cycles, or a harder form such as labor nationalization laws that seek to substitute foreign labor for domestic labor (e.g., the Nitaqat law in Saudi Arabia). On the other hand, diplomatic relationships may affect labor flows between countries. Host countries may choose to allow an increase in admission of source country workers to cement diplomatic relations, or may decrease admission if the host country feels its diplomatic trust has been violated (as in the case of Russia and Tajikistan).

**Preferences of the host country** is a broader variable that captures less measurable determinants of demand for a source country's workers. A key element of this is national reputation, meaning either positive or negative perceptions employers in the host country hold about source country workers in particular jobs. For example, drivers from Khyber Paktunkhwa in Pakistan are considered to be tough and reliable in the GCC, making that a difficult market to break into. Filipinos are considered technically competent and efficient, and the Nepalese have a reputation for being dependable and hardworking. On the other hand, some workers from the South-Asia have a reputation both in the GCC and Malaysia for being, at times, demanding and difficult. Preferences may also include language or cultural affinities, though these do not always play out in obvious ways. For example, religion may be either an advantage or a disadvantage, depending on whether cultural or political criteria are in play. GCC employers are often loathe to hire other Arabs as this blurs cultural lines between employers and workers (Kapiszewski 2006). Language similarities are generally a positive factor, though again are not necessarily obvious. For example, in the GCC, it is far more useful for workers to speak Hindi/Urdu than to speak Arabic, as most of the foremen and managers overseeing their work are from South Asia.

Given that most of the variables are difficult to directly measure, a practical methodology for identifying prospective markets is to feed findings on each variable into an analysis of the Strengths, Weaknesses, Opportunities, and Threats (SWOT) of each market. According to the IOM (2006), "when placed in the context of international labor migration... an updated SWOT analysis can help to focus a country's efforts in areas where it has built in strengths, or help it to determine strategies in the context of opportunities or threats." A well-executed SWOT analysis can point a sending country government in the right direction to develop its marketing strategy and help it to prioritize potential markets where it



has the highest possibility of success, even if complete information is not available. SWOT analysis has been used in many areas of public policy, from identifying internal clusters for development, to policy strategies, to program design. While imprecise, it offers actionable direction that can help sending countries target their attempts at expanding market access.

#### 4.1.2 Summary Findings of the SWOT Analysis by Country

**Pakistan** has a moderate outlook for expanded labor market access for Afghan workers. Pakistan and Afghanistan have strong trade ties, and Afghan workers have very strong networks within the Pakistan labor market. Afghans are known for filling labor market needs of Pakistani employers, and in particular offer them a way around rigid labor laws. However, Pakistan has a poor overall jobs outlook, and many Afghans have begun repatriating due to the high cost of living and poor employment outcomes. The informality of the flows to Pakistan makes Afghan workers very vulnerable economically and socially. Further, the Government of Pakistan is taking a harder line on Afghan refugees and workers in the Pakistani workforce, so it is unlikely to allow expanded access.

**Iran** is also unlikely to expand access, though may be more willing to negotiate increased formalization. While the Government of Iran recently placed greater emphasis on repatriating its Afghan population, it has historically undertaken policies to regularize its largely irregular Afghan population by offering registration and work visas. Afghans play an important role in the Iranian labor market, particularly as they fill jobs Iranian workers are generally unwilling to and at a lower salary. They have an excellent reputation with Iranian employers. However, the Iranian labor market has performed sluggishly, and more importantly Iran has high youth unemployment and a very large youth cohort to employ in coming years. While lifting the sanctions increased the growth prospect of the country and thus the potential demand for Afghan works in, say construction, the national and international economic and political environment still remains fragile. Lastly, a solidified relationship with Iran may reduce the GCC's political willingness to open labor migration channels to Afghanistan.

**GCC countries** are adopting policies to reduce the use of low-skilled labor, but realistically will continue to draw from labor-sending countries in coming years. GCC countries across the board are implementing labor nationalization policies that either incentivize or enforce the preferential hiring of GCC nationals over foreign workers. While these are a potential threat to low-skilled workers looking to enter the GCC labor force in coming years, given the vast price differential between GCC national and foreign workers, a large decline in the use of foreign workers in the near future is unlikely. A perhaps greater threat is that the decline in oil prices will lead to a significant economic slowdown in these countries. However, many large infrastructure projects are still planned (for example, Dubai Expo 2020, Qatar Football World Cup 2022, the Riyadh metro, and the Jeddah–Mecca fast train projects), many of which will require low-skilled construction workers in particular. Competition for these jobs is significant, but Afghan workers may be able to compete on price or cultural affinity.

**Malaysia** is seeking to move away from low-skilled labor, but has an ambitious economic agenda that will require workers. Malaysia currently aims to attain high-income status by 2020, with a required GDP growth of 6 percent per year. In pursuit of this goal, the Government of Malaysia is undertaking a total of 131 projects to be implemented across 12 national economic areas, creating an estimated 3.3 million jobs by 2020. Based on the skill structure of some of the key growth sectors involved in this plan (such as agriculture, palm oil, rubber, and the electrical and electronics industries), Malaysia will continue to import low-skilled workers. However, the government is seeking to cap its foreign workforce at 20 percent of total by 2025, which will likely decrease its willingness to open up new corridors.

**Australia** currently has relatively weak employment growth and many competing source countries for labor. Australia's recovery from the recession has been relatively slow, and employment conditions continued to deteriorate in the past four years. The possible exception to this is Western Australia, where the construction sector is growing and may provide a possible space for Afghan workers. However, Afghan workers are relative newcomers to the Australian labor market, and tend to be less skilled and less fluent in English than their competitors.

As **Turkey** has become a regional political and economic power, it has transitioned from a migrant-sending to migrant-receiving country. It has strong cultural ties with Afghan Turkmens as well as Afghan Hazaras and Pashtuns, and has conducted significant cultural outreach, particularly with Afghan communities in Pakistan. The construction industry is expected to continue to be the main source of growth for the Turkish economy in coming years, providing an opening for Afghan workers. However, Turkey faces significantly high youth unemployment and a large population of Syrian refugees, which may make it more difficult for Afghans to enter the labor market. And Afghans claiming refugee status in Turkey on the way to Europe may also prove an obstacle the larger their number.

**Europe** needs a significant influx of workers, but is unlikely to be open to any new immigration as long as it continues to receive refugees from Syria. Europe has an increasingly aging workforce and will face growing labor market shortages in coming decades. As such, this is the market with the greatest need for Afghan workers, but it is unlikely that Western European countries in particular will be willing to accept new workers. Indeed, Europe has been repatriating Afghan refugees in recent years and accelerated the process with the new arrival wave of 2015. Openings may arise in Eastern Europe, which needs a large number of workers, although political resistance may be high.

**Central Asian** countries are unlikely to need foreign labor in the coming years, and will remain labor-sending countries for the time being. While Central Asian countries do have ethnic and historical ties with Afghanistan, these do not appear to be strong enough to override their concerns over security in dealing with the Government of the Islamic Republic of Afghanistan (GoIRA). Indeed, most Central Asian countries have purposefully distanced themselves from Afghanistan historically, and while this has softened some since 2007, the relationship is still tenuous. More importantly, Central Asian countries have their own employment concerns, and do not appear capable of absorbing significant numbers of foreign labor into their labor markets.

### 4.1.3. Summary Assessment

Based on the above analysis, the relative viability of each market is assessed. Table 4.1 offers a country grading based on labor market needs, political receptiveness, and cultural and language affinity as discussed in the preceding sections. A “traffic light” approach was used to grade each criterion and to provide a proposed overall assessment. The assessment yields Turkey as a frontrunner, followed by GCC countries and possibly Malaysia. The assessment for Turkey does not include very recent developments and their implications for migrants.

**Table 4.1: Summary assessment of potential host countries**

	Labor Market Need	Political Receptiveness	Cultural and Language Affinities	Overall
Pakistan	●	●	●	●
Iran	●	●	●	●
GCC	●	●	●	●
Malaysia	●	●	●	●
Europe	●	●	●	●
Australia	●	●	●	●
Turkey	●	●	●	●
Central Asia	●	●	●	●

Source: World Bank team based on BGP 3A.

## 4.2 Institutional Requirements and Policy Processes

This subsection outlines the institutional homework a migrant-sending country must do to move from an unmanaged to a managed migration process. It first summarizes the benchmark on sending countries’ systems for accessing overseas jobs. An assessment of the currently nonexistent or just emerging Afghan migration management approach follows. The subsection ends with an outline of the gaps to fill and the likely associated time requirements. This critical information guides development of the policy scenarios presented in section 5 and the conclusions and suggestions on next steps in section 7.

### 4.2.1 The Benchmark: Sending Countries' Systems for Accessing Overseas Jobs

Recent events have made clear that policies and institutions have not kept pace with the changing reality of increasing international labor mobility. Historically, migration policy was found primarily in the domestic immigration policy of receiving countries. Now it is recognized as central to sending countries' policies as it relates to economic development and poverty alleviation. While increasing mobility creates huge potential increases in global welfare, accessing these gains requires careful management and facilitation of labor flows to avoid a low-level equilibrium. Sending countries must design labor-sending systems that balance increased mobility with protection throughout the entire migration process, while ensuring that supply and demand for specific skills are matched.

BGP 3B identifies four pillars of a fully functioning labor-sending system (Table 4.2): (1) **the Framework for Access** – legal frameworks and international agreements that allow for the movement of labor between countries; (2) **Facilitating Access** – tools for labor intermediation to help workers through the difficult process of identifying and obtaining jobs overseas; (3) **Fortifying Access** – protection mechanisms and support services that mitigate risks of migration for workers; and (4) **Furthering Access** – creation of institutions to expand and diversify foreign market access via upskilling and moving up the labor value chain. Underlying these pillars are foundational themes of administrative capacity/efficiency and cross-border alignment of institutions to ensure that supply is meeting demand.

**Table 4.2: Pillars and content of a functioning international labor-sending system**

Framework for Access	Facilitating Access	Fortifying Access	Furthering Access
Bilateral and multilateral labor agreements  Bilateral social security agreements  Any other bilateral agreement or international treaties	Marketing research and campaigns  Identifying jobs  Public and private intermediation  Interview/CV assistance	Protection mechanism  Support services  Labor attache offices  Finance mechanism	Skills and verification and certification  Skills training and upskilling  Measuring on-job skill acquisition
<b>Cross-border alignment of institutions:</b> Cooperation and coordinations of stakeholders and systems in both sending and receiving countries			
<b>Administrative efficiency:</b> Bureaucratic streamlining, strong cooperation and coordination among stakeholders			

Source: BGP 3B.

The **Framework for Access** includes all documents and agreements that provide the legal and government structures governing the employment of a country's citizens abroad. These frameworks govern terms of exiting the origin country and legally entering the destination country, access to the labor market, access to safety nets, and rights and protections throughout the migrant's stay in the host country. The frameworks include BLAs between source and host countries, national legislation regarding migration management in the source country, the institutional framework assigning ministries responsible for migration management, and the bureaucratic processes for regular exit (i.e., passport issuance, health and security screening, etc.). At later stages of development it may also include rights to social protection after the migrant's return to the origin country (such as bilateral social security agreements). BGP 3B finds that the primary determinant of success is that these frameworks be demand-driven and designed in coordination with both origin and host country governments and private sectors. To avoid incentivizing irregular migration, the bureaucratic processes must also be efficient and not overly burdensome or costly.

**Facilitating Access** includes policies and institutions designed to support workers in identifying and obtaining employment abroad. Active labor market policies (ALMPs) to overcome information asymmetries and match labor supply and demand are widely acknowledged as a crucial element of domestic employment strategies. Overseas labor markets typically involve far greater challenges in terms of identifying jobs, matching workers with vacancies, and reducing information asymmetries. As such, to increase employment abroad, countries need to strengthen labor intermediation and recruitment to international markets. This includes foreign labor market prospecting and promotion campaigns for the origin country's workforce, integration of migration into labor market information systems to provide a clear assessment of labor supply, and public and private international recruitment services (including licensing, regulation, monitoring, and market development activities). These services are particularly critical in an emerging labor-sending market such as Afghanistan, which will be in competition with more established sending countries and will therefore need to actively market its workforce to prospective host countries.

**Fortifying Access** includes protection mechanisms aimed at mitigating the risks migrants face throughout the migration process. Workers in foreign labor markets often face asymmetries in terms of access to rights, protection, and information that increase their vulnerability. As such, a good labor-sending system should seek to balance mobility with protection by building institutions and tools that mitigate these risks. A key step to reduce risks associated with working in a foreign labor market is to provide information via information campaigns and regular communication throughout the entire migration process, even prior to the decision to migrate as well as departure. Predeparture training is a key to ensuring that migrants receive all crucial information prior to departure, and should be developed in coordination with host country representatives. Upon arrival in the host country, labor attachés become the first line of protection and risk mitigation for migrants and are responsible for providing complaint resolution, legal redress, and regular outreach to the migrant community. Finally, sending countries often offer migrant welfare funds or insurance mechanisms to mitigate risks of death, disability, or failed migration.

**Furthering Access** includes programs and institutions aimed at raising the level or visibility of workers' skills to improve their employment opportunities and promote their deployment to work abroad. This includes programs that aim to prevent "brain waste," or the underutilization of migrants' skills, and that provide participants with certificates or diplomas to make their mid-level skills visible to employers. By increasing employers' access to information about migrants' skills, a successful transnational skill development and recognition system could help address this inefficiency and enhance labor market resource allocation. Skilling systems also include TVET and training programs aimed specifically at producing skills that

are in demand in key destination markets. BGP 3B finds that the decisive factor in determining the success of such programs is including employers and private sector representatives from the host market during the design stages and regularly throughout implementation. In Afghanistan's case, training programs for work abroad may include less technical but still critical skills such as literacy, language training, and employability skills, which will give Afghan workers a competitive advantage with other labor source countries in the somewhat more homogenous low-skill labor markets.

The key finding from surveying good practices on each of these pillars is that they will only be effective at increasing migration rates and improving migration outcomes if they are designed via bilateral coordination. In efforts to facilitate labor migration, sending countries can adopt unilateral facilitation and bilateral facilitation policies. Unilateral facilitation includes supply-side interventions such as provision of information, loan facilitation, and policies to ease the international job-search process. Bilateral facilitation policies involve more demand-side-oriented cooperation with governments or employers in destination countries and include the formalization of agreements to allow labor migration of specified numbers and types of workers. Beam, McKenzie, and Yang (2015) found that without parallel bilateral facilitation, efforts at unilateral facilitation were largely unsuccessful in increasing migration rates. This finding is supported by many of the case studies presented in BGP 3B, which confirms that for sending systems to be successful they must be built in coordination with ministries and the private sector in the receiving country.

#### 4.2.2 Comparing the Benchmark with Reality in Afghanistan

Using the above framework to benchmark the existing Afghan system reveals critical gaps in each of the four pillars. While GoIRA and Ministry of Labor, Social Affairs, Martyrs, and the Disabled (MoLSAMD) made impressive strides in addressing these gaps in recent years (see BGP 3B for details), major gaps remain.

Key shortfalls in the **Framework for Access** are that:

- Afghanistan's flows currently occur outside the coverage of any BLAs or even MoUs with receiving countries. Because Afghans are currently not able to obtain work visas to several key destination countries, they have few options for regular migration and often resort to irregular channels.
- No coordinating body currently exists for ministries whose mandates touch on migration, and coordination even among units in MoLSAMD is quite poor.
- Current laws and regulations outline provisions for migration management and the protection of workers, but concrete mechanisms have largely not been established to implement these outlined obligations. Where they have been established they exist mostly in a vacuum in the absence of formal migration flows, and as such may not speak in practice to their intended purpose.
- Irregular flows are bolstered by GoIRA's lack of capacity for border management and control.
- While the passport process was recently renovated and made much more efficient, recently introduced health and security screening mechanisms threaten to undermine these gains by imposing new and cumbersome burdens on workers seeking clearance to go abroad.

Key shortfalls in **Facilitating Access** are that:

- Afghanistan does not currently have a marketing or negotiating strategy to gain access to new labor markets or to increase access to existing markets.
- Recently introduced legislation to regulate recruitment as yet does not have enforcement mechanisms, and it is possible that the Directorate of Overseas Employment does not have the manpower or capacity to fully enforce the provisions included therein.
- While around 70 recruitment agencies have been licensed by the Directorate of Overseas Employment, a review revealed that only 15 have the capacity to place workers abroad. This implies not only that capacity among existing recruiters is quite low, but that the licensing system is not doing an effective job at identifying firms with this capacity.

Several critical elements of migrant protection systems under **Fortifying Access** are missing, such as:

- No labor attachés have yet been appointed in important destinations (e.g., to facilitate employer/employee dispute resolutions), and consulates are only equipped to offer at best minimal support to Afghan workers abroad.
- The Directorate of Overseas Employment currently relies on recruitment agencies to offer predeparture training as it does not have the capacity to do so itself; however, no enforcement mechanism is in place to ensure this is occurring, and it is unlikely that recruitment agencies have the capacity to provide this training either.
- There is no risk mitigation or insurance fund for Afghans in the case of death, disability, or failed migration.

Key shortfalls under **Furthering Access** are that:

- While upskilling is an important part of expanding access in an overseas labor market, in some of Afghanistan's key labor markets it may be a less decisive factor. Prior migrant experience appears to be preferred in hiring decisions to TVET (Technical and Vocational Education and Training) certification. More immediate focus should be placed on literacy training, employability skills training, and language training as relevant for the destination market.
- Existing Afghan TVET institutions are currently unlikely to be able to provide training that would meet destination market skill standards.
- Originally GoIRA established a skill certification commission that certified migrant skills on a case-by-case basis. This commission consisted of representatives of NSDP, higher education institutions, and the Afghan-Korea Institute. However, this proved an ineffective method and GoIRA is currently working on devising a replacement.
- MoLSAMD negotiated with the Ministry of Interior to have workers' professions listed in their passports when going abroad for work. The rationale was that the consistency between legal documents will signal more credibility behind worker skills. However, this is unlikely to be accepted as proof of skills in foreign markets.



### **4.2.3 Building a Labor-Sending System for Afghan Workers**

Eliminating or reducing the key shortfalls and gaps of the currently unmanaged Afghan migration system will be a challenging process, as the analysis suggests that:

- Building a labor-sending system is a lengthy and highly uncertain process.
- It takes two to three decades to build a fully functioning labor-sending system, based on the experience of notable labor-exporting countries.
- Development of even a simple, broadly functioning labor-sending system takes many years, if not more than a decade, based on the experience of more comparable countries.
- Afghanistan will need a steady, long-term approach to building its labor-sending system given the lengthy and uncertain path of labor exportation.

As the process promises to be lengthy, it is important to set priorities and not attempt to correct all shortfalls at the same time. The policy analysis suggests the following prioritization:

##### **(1) Formalize Afghanistan's labor flows.**

Irregularity is currently a dominant trait of Afghanistan's labor flows (as mentioned, 79 percent of Afghans in Iran and 50 percent in Pakistan are irregular, in addition to the Afghans in the GCC on Pakistani visas). Without formalizing this flow, it will be nearly impossible to reach agreements with new destination markets or expand access into existing markets, and it is very difficult to facilitate or fortify access for existing workers if they are irregular. Irregular flows decrease political capital for a sending country with potential markets, and leave workers vulnerable to exploitation as they are outside the protection of the law. While it is unlikely to be currently feasible to formalize the porous borders with Iran and Pakistan, demonstrating efforts toward border administration in negotiations to open new managed migration corridors is likely to be a critical requirement. It is important to note that improving enforcement goes beyond border control, and that improving coordination between agencies, decreasing monetary and bureaucratic burdens of regular migration on migrants, and aligning incentives of employers, recruiters, and migrants with regular migration are likely to be as if not more important in regularizing migrant flows than border control alone. The three main steps identified toward formalizing Afghanistan's labor flows are to:

- Improve border control
- Negotiate a temporary movement of persons agreement with Iran
- Assess the possibility of new MOUs with GCC countries and Turkey

##### **(2) Improve migration management systems in Afghanistan.**

Once the flow of irregular migrants has been stemmed and new formal flows opened, the next priority area is to ensure that the basic tools are in place to properly manage these flows. This includes ensuring that incentives for migrants are aligned with regular migration and that the government has the necessary tools in place to implement its programs and regulations. The two primary steps identified toward improving Afghanistan's migration management are to:

- Create a coordination mechanism for ministries involved in migration
- Streamline the screening mechanism and decrease the bureaucratic burden of emigration

**(3) Strengthen labor intermediation for Afghan workers going abroad.**

Once formal access to foreign labor markets is established and migration flows are properly managed, the next focus is to develop systems for assisting Afghan workers in getting jobs overseas. In their final form, these systems may include everything from market research and promotional activities, to job matching systems, to recruitment mechanisms, to skill matching and certification, and to labor market information systems. A few essentials can provide the initial foundation for the rest of the labor intermediation system. In Afghanistan's case, the two initial steps identified toward building a labor intermediation system are to:

- Strengthen the recruitment system
- Revise the skills certification and verification mechanism

**(4) Build a system for balancing mobility with protection.**

Once Afghan workers obtain jobs in a foreign labor market, it is crucial that a system is in place for their protection as they go abroad. A full protection system may include everything from hotlines to repatriation insurance schemes, migration finance mechanisms, and more. The three key actions for Afghanistan to undertake immediately are to:

- Place labor attachés in each host country embassy
- Establish predeparture training
- Conduct information campaigns for prospective migrants



# 5

## Policy Scenarios of Managed Migration and Growth Drivers

The prior sections motivated and offered the background and material to develop the policy scenarios for managed migration. To this end, the analysis starts with development of the baseline scenario for variables considered relevant and makes informed conjectures about their scope, structure, and time profile. The policy scenarios then hypothesize how these variables will deviate from the baseline scenario as a result of policy interventions. The project has a time horizon of 2030, i.e., a time profile of 15 years starting with 2016. Each variable's scope and structure are assumed to remain at 2030 levels thereafter.

The baseline and policy scenarios of managed migration focus on three main variables: (1) the scope of economic migrants (without and with a managed migration approach); (2) the scope of remittances; and (3) the level of skills of remaining, departing, and returning migrants. For each policy scenario, variations in the assumptions are presented. Changes in the baseline are avoided to keep the number of scenario results manageable. As discussed in section 2, other variables that may have a possible impact, such as the wage level of the nonmigrant workforce, are ignored because their effect is considered not relevant enough and/or no informed assumptions can be established and used in the model simulations.

As mentioned in section 2, the outcome of the baseline and policy scenarios for these variables are ultimately translated into inputs to a computable general equilibrium (CGE) model calibrated on the Afghan economy presented in Section 6.

### 5.1 Baseline Scenario

The baseline scenario establishes a time profile for 2016–2030 for each of the three key variables: the number of migrants, the value of remittances they are expected to send back to Afghanistan, and migrants' skills profile. As this subsection and Annex B reveal, this exercise is not as easy as it sounds.

#### 5.1.1 Baseline Profile of Migrants

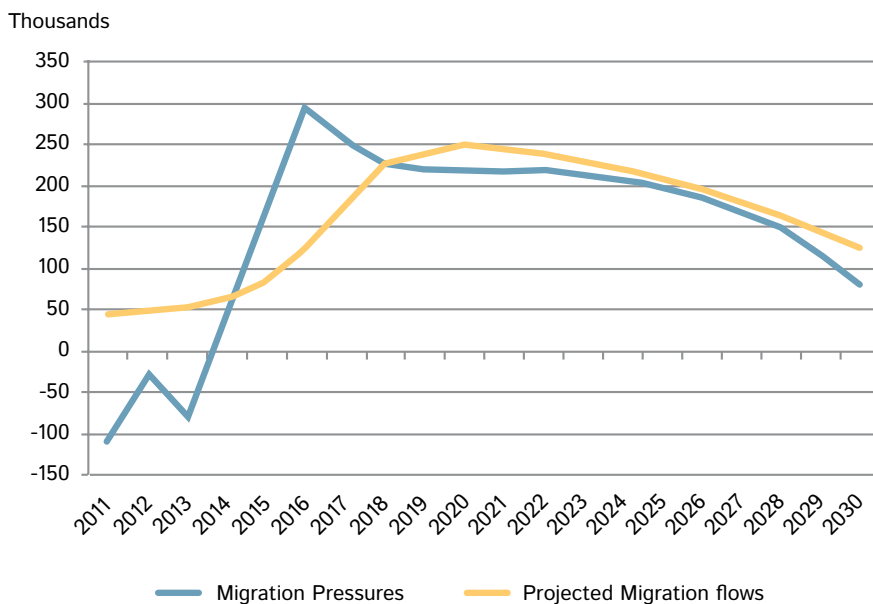
Regarding the number of economic migrants, the ideal projection is the number of economic migrants who go abroad and return. Such projections should be informed by past stocks and flows of economic migrants and assumptions about the future demographic development and economic growth path, as both will affect the pressure to migrate and thus the number of migrants leaving and returning.

As seen in section 3 Afghanistan – like most other countries in the world – does not have full information about the stock of migrants living abroad or the annual gross flows out (emigration) and back (return migration and possibly immigration from other countries). In addition, Afghanistan has two main types of stocks and flows of broadly equal importance: economic migrants and refugees, which are not always easy to distinguish. The exercise in Annex B attempts to establish with simple informed assumptions consistent annual stocks and flows (gross and net) for both economic migrants and refugees for intervals of five years for the periods 1996–2000, 2001–2005, 2006–2010, and 2011–2015. For the most recent period (2011–2015) this suggests an annual net outflow of economic migrants of 61,000, corresponding gross flows of 215,000 (out) and 154,000 (return), and an estimated stock of some 2.3 million at the end of 2015. These figures reflect past labor market conditions and migration pressure due to demographic and economic developments. Afghanistan's economy was excellent for about a decade up to 2012, with an average annual growth rate of 8.6 percent. With a population/labor force growth of some 3.6 percent and an employment elasticity of GDP of almost 0.5, the additional labor force was broadly matched by national labor demand with no additional

migration pressure arising during the period 2011–2015. Net migration during this period can be seen as a reflection of accumulated labor market disequilibria in prior periods.

For the period 2016–2030, the demographic projections presented in section 3 indicate an annual additional labor force of some 400,000 entrants. To absorb these flows would again require economic growth of at least 8 percent of GDP. The most recent years of 2013, 2014, and 2015 saw GDP growth of only 2.0 percent, 1.3 percent, and 1.5 percent, respectively, which implies an increase in migration pressure. The most recent projections by the World Bank foresee a baseline growth of 1.9 percent in 2016, rising to 3.9 percent by 2020 and to 5.0 percent by 2030. The gradually increasing economic growth profile implies a gradual reduction of migration pressure from 2016 onward. Taken at face value, the projections suggest an average annual (new) migration pressure of 200,000 individuals for the period 2016–2030 (Figure 5.1).

**Figure 5.1: Annual migration pressure and projected net labor migration flows, 2011–2030**



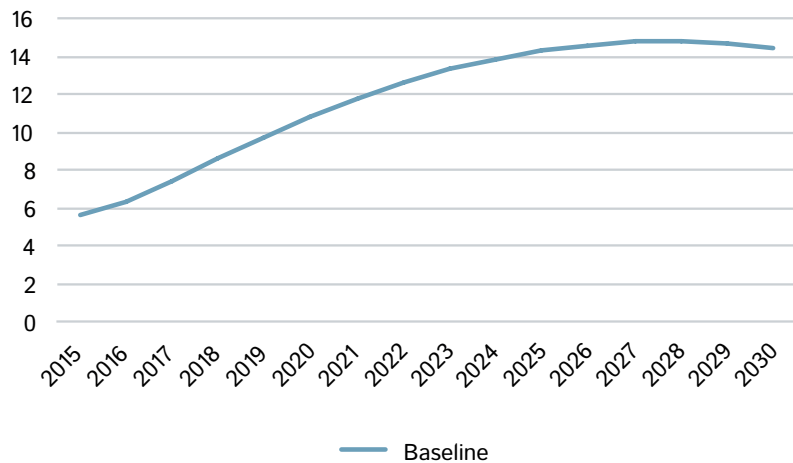
Source: BGP 2C and Annex C.

The extent to which this new and additional migration pressure translates into additional net outflows of labor (i.e., net economic migrants) is unclear a priori. On one hand, not all of this annual (new) migration pressure will immediately translate into emigration but will instead contribute to un- and underemployment on top of an existing overhang of accumulated prior labor market disequilibria. On the other hand, some of this overhang will translate into some outflow each year. Last but not least, return migration depends on the situation at home and abroad. Using simple assumptions about the lag structure yields a projected net labor migration flow that follows with some delay the profile of migration pressure, also producing close to 200,000 net migrants for the period 2016–2030 but in a smoother fashion (Figure 5.1).

### 5.1.2 Baseline Profile of Remittances

To calculate the time profile of remittances for the baseline, the starting point and relevant estimate for 2015 first need to be determined. The official figure of US\$342 million in 2015, equivalent to 1.7 percent of GDP, quite likely underestimates the total remittances reaching Afghanistan as it reflects only the money coming in through official channels. Estimates of total remittances (officially and informally transferred) can be almost 10 times this scope (alternative scenario calculations in Annex B cover shares of GDP between these polar cases). The analysis selects 5.9 percent of GDP, a middle-of-the-road value based on recorded individual remittance behavior linked with the assumption that individuals' remittances peter out after 10 years abroad (see Annex B, section 2). The baseline profile of remittances is derived by using this approach for each year until 2030, keeping constant the per capita size of country-specific transfers and the distribution of migrants per host country. As the number of (unmanaged) migrants will increase, the share of remittances as a percent of GDP increases in an essentially proportional manner, doubling between 2015 and 2030 (Figure 5.2). Somewhat larger deviations could be constructed by assuming major differences in GDP growth per capita between Afghanistan and the host countries but the direction of such assumptions would be difficult to make and would confuse more than reveal.

**Figure 5.2: Baseline profile of remittances (as a %of GDP), 2015–2030**

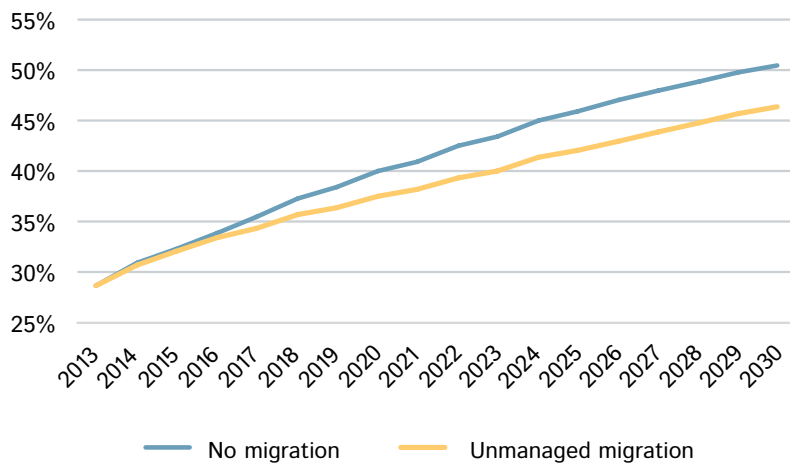


Source: BGP 2C and Annex C.

### 5.1.3 Baseline Profile of Migrants' Skills

The available skill segmentation in Afghanistan (blue- and white-collar workers, both differentiated as low- and high-skilled) does not lend itself to easy application (also because farmers are classified as blue-collar, high-skilled workers) or to easy and useful addition to the available education levels (illiterate and primary, secondary, and tertiary education). Illiteracy is still rampant among the Afghan population but literacy is quite likely a selection criterion for managed migration at larger scale; thus improvement in literacy is viewed as a driver of managed migration. Even for the baseline, major increases (decreases) in literacy (illiteracy) occur, as the younger cohorts already have a much higher entry rate to and completion rate of primary schooling. This cohort effect alone leads to a major increase in literacy until 2030. As literate workers have a higher propensity to migrate, this effect must be taken account of; thus the literacy level of the workforce under unmanaged migration is calculated as the baseline (compared to the literacy level of the workforce without brain drain), as presented in Figure 5.3.

**Figure 5.3: Baseline profile of literacy rates of the Afghan labor force, 2013–2030**



Source: BGP 2C and Annex C.



## 5.2 Policy Scenarios

A limited number of policy scenarios emerge based on selection of a number of combinations of assumptions. The key assumptions relate to: (1) the add-on or substitution of managed migrants for unmanaged migrants; (2) the timeline and force with which such a policy approach can be implemented; and (3) the quality of the host country with regard to wage and remittances levels and upskilling opportunities.

**1** As managed migration is introduced, a key question is whether it takes place as an add-on to unmanaged migration or as a substitution. Arguments exist for both outcomes and for some combination thereof. An add-on seems possible if the host countries for managed migration are new, such that substitution through consideration of migration diversification plays no role. A substitution may occur in existing host countries (in GCC or Europe) or through some restrictions on the Afghan supply side. Some substitution may be due to the fact that managed migration reduces migration pressures (as it alleviates the labor mismatch and provides remittances as a source of income), so the need for other nonmanaged migrants to migrate is lower. These polar cases can serve as extreme situations that allow for teasing out the difference in scope and economic impact. Under full substitution, the effect on remittances would be reduced to the differences in intensity and level of remittances under both scenarios. However, no impact would be seen on the literacy rate beyond that contained in the baseline scenario.

A third effect, namely over-substitution, could emerge whereby the total number of economic migrants shrinks. This could happen if managed migration was established with an existing large receiver of refugees and often irregular economic migrants – e.g., Iran and Pakistan. These countries might make a BLA and the receipt of managed migrants conditional on a reduction in the number of refugees and irregular migrants. This effect is disregarded in the analysis that follows.

**2** Critical questions for any policy scenario are when managed migration could actually start, with what scope and structure, with what dynamics, and with what countries. To provide answers to all these questions requires many assumptions that cannot all be well argued as the time needed to overcome many binding constraints is uncertain. The key constraints and some proposals for scenario assumptions are highlighted as follows.

Managed migration requires the involvement of at least two countries. At the moment Afghanistan has no operative partner at all. Thus a first constraint is for Afghanistan to identify possible managed migration host countries, conclude BLAs or at least MoUs, and establish the institutional framework to enable it to send and receive managed migrants. Section 4 summarized the thoughts and hurdles to this end and BGP 3A and 3B offer more depth on the issue.

The complexity of these processes and the experience of countries such as the Philippines and Sri Lanka may suggest that within the investigated time frame of 2016–2030, no relevant managed migration stream may actually be established. Rather than terminating the exercise, one alternative is to make optimistic assumptions about the starting date, the dynamics (level and progression), and host country selection, derive results, and assess the model-based outcomes. If the outcomes compare well with alternative growth options, then one can explore whether the original optimistic assumptions can actually be realized with strong policy interventions. The likelihood of realizing an optimistic policy scenario increases with engaged financial support by donor countries and technical assistance from the World Bank and other relevant international institutions.

The year 2021 is selected as the starting point for managed migration in Afghanistan (i.e., four years after a possible go-ahead and donor support). Two trajectories for managed migration are explored: (1) a low starting level of managed migrants and their increase to 2030; and (2) a high starting level and progression of managed migration. Both scenarios assume that migrants stay abroad for six years before returning.

**3** Important for the outcome of managed migration is the quality of the host country with regard to both: (1) the level of wages and other nonwage benefits (and thus the size of remittances); and (2) the upskilling capabilities for migrants before and during migration (and thus the potential increased human capital upon return).

Two alternative host regions are proposed given that recent survey data are available to determine the intensity and amount of transfers as a lower bound on which upward adjustments can be made. These are: (1) GCC countries, which already have managed migration features as countries of destination and thus the intensity and amount of remittances can be replicated; and (2) OECD countries, for which migration is essentially unmanaged, such that a managed migration approach may lead to higher intensities and remitted amounts per migrant, as the currently remitted amounts reflect unmanaged migration only.

It is assumed that no change in literacy occurs as part of the migration experience in the host country, as only rarely does migration include formal education spells; however, it is assumed that the prospect of migration enhances enrolment in primary schooling. Thus a “lottery ticket effect” is presumed to arise, in which buying a ticket is necessary but not sufficient for winning. The analysis assumes that only literate individuals (proxied by completed or retrofitted primary education) are selected for managed migration<sup>13</sup>.

The combination of assumptions into policy scenarios is explored along the following lines: the marginal contribution of each assumption’s alternatives is first established. The alternative with the higher contribution is passed on to the next stage, until the best combination of all assumptions’ alternatives emerges. As the different assumptions are linear and have no path dependency, the relative marginal contributions of alternatives should be independent of the sequence in which they are explored. Table 5.1 summarizes the assumptions’ alternatives. Results tables that present the outcomes and marginal changes in absolute and relative terms with regard to remittances and skills are presented and discussed in subsection 5.3.

---

<sup>13</sup> If operational skill classifications were available, the analysis could go beyond this assumption and include skills departure training and skills acquisition in host countries. The experience with GCC countries suggests very moderate but not fully negligible upskilling for their migrants (or “expats” as the countries prefer to call them, as the term “migrant” connotes the right to stay). However, as part of their economic reforms, GCC countries are starting to become aware that the upskilling of expats is also in their interest if they want to move to a knowledge-based economy. Hence one could introduce an optimistic assumption that the BLA/MoU contains commitments for upskilling an increasing share of migrants. The same could also be assumed for managed migration with OECD economies.

**Table 5.1: Policy scenarios and the progression of assumptions**

		Policy Scenario						
Assumption		Low	Low -middle	Middle -high	High	High+	Average	
	<b>(1) Migration management</b>							
	Substitution	X					X	
	Add-on		X	X	X	X	X	
	<b>(2) Dynamics as of 2021</b>							
	Low	X	X				X	
	High			X	X	X	X	
	<b>(3) Countries of destination</b>							
	GCC	X	X	X			X	
	OECD				X	X	X	
	<b>(4) Upskilling of migrants</b>							
	No	X	X	X	X		X	
	Yes					X	X	

Source: Author based on team discussions.

Table 5.1 presents five policy scenarios, ranging from low, low-middle, and middle-high to high and high+. The progression to each higher stage represents selection of the better alternative for each assumption, while keeping the better alternative from the step before. Within these policy scenarios are a few more differentiations regarding OECD countries' remittances and upskilling.

### 5.3 Results of Policy Scenarios on Remittances and Skills/Literacy Acquisition

Essentially two main groups of scenarios are used as input for the GCC model: those around differences in remittances and those around differences in skills/literacy acquisition. The following presents each of the two scenario groups, first detailing the assumptions before presenting the results graphically (detailed tables are in Annex B).

#### 5.3.1 Remittances Scenarios

The key assumptions are around: (1) the scope of managed migrants and their dynamics; (2) the substitution or add-on of these migrants within the migration trend; and (3) the amount of remittances transferred depending on the potential host countries. Table 5.2 sketches the specific assumptions behind the remittances scenarios (and the baseline).

- The first row concerns the dynamics of managed migration flows as of 2021. The low scenarios assume that flows start at 10,000 managed migrants and end with 50,000 in 2030; the high scenarios double the number of managed migrants. These magnitudes are seen in other countries, albeit those with longer managed migration experience.
- Only the low scenarios assume full substitution of migrants; the other scenarios assume an add-on effect of one-third (one-sixth for the average scenario). The scope of the assumed add-on effect is realistic but requires strong government action to make it happen.
- The destination countries affect the size of remittances. For GCC countries, the amounts obtained from household surveys are used; for OECD countries, the reported amount is doubled in the high+ scenario as the recovered amount reflects an unmanaged migration scenario and thus a lower wage level that is likely to change.

**Table 5.2: Assumptions behind remittances scenarios of managed migration**

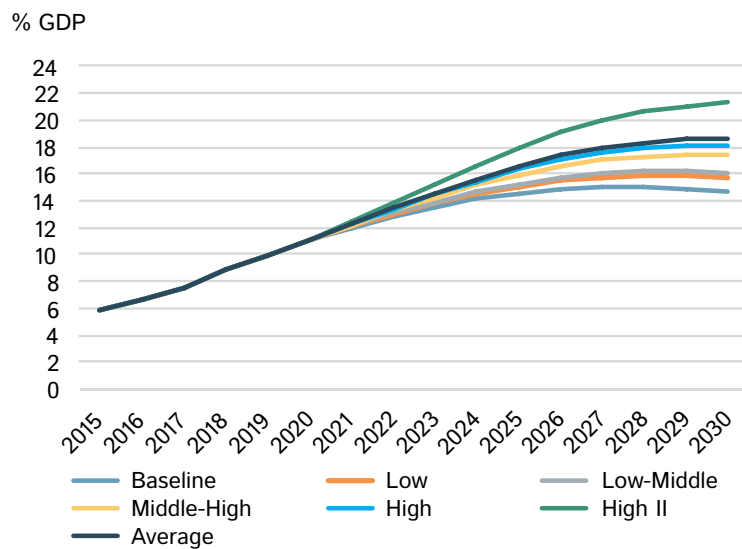
	Baseline	Low	Low-middle	Middle-high	High	High+	Average
MM (as of 2021)	None	10,000 to 50,000	10,000 to 50,000	20,000 to 100,000	20,000 to 100,000	20,000 to 100,000	15,000 to 75,000
Substitution vs Add-on	None	Substitution	Add-on 1/3	Add-on 1/3	Add-on 1/3	Add-on 1/3	Add-on 1/6
MM destination country	None	GCC	GCC	GCC	OECD	OECD	GCC & OECD
Annual remit. amount sent through MM	None	3335 US\$ pc	3335 US\$ pc	3335 US\$ pc	4019 US\$ pc	6670 US\$ pc	6670 US\$ pc

Source: Author, based on team discussions.

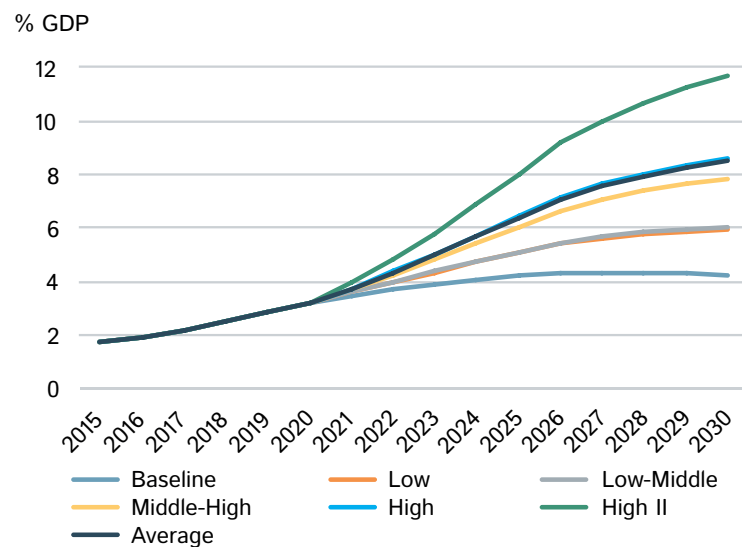
The results of these assumptions are presented graphically, with two presentations of the estimated amount of remittances as a percent of GDP. Figure 5.4 presents the total amount of remittances going through official and informal channels, while Figure 5.5 presents the total amount of remittances through official channels only. In both cases the underlying estimations assume that all managed migration goes through official channels (this may be part of the BLA/MoU) and make the same assumptions about substitutions or add-ons with regard to the number of migrants. This differentiation is needed as the CGE model is calibrated on official data only and cannot easily integrate unverifiable estimates of informal transfers.

As expected, using the total estimate of remittances, the overall share in GDP rises to a much higher level as a result of the trend in and effects of unmanaged migration, supplemented by the effects of policy scenarios for managed migration (Figure 5.4). The resulting estimates that lead to shares of 16 percent and more of GDP are well above the experience of most developing countries. Earmarking all managed migration to the estimate of the recorded official remittances flow only (taken as a constant 29 percent of the benchmark amount of unmanaged migration), the level of remittances in GDP is lower but the impact of managed migration on the change by 2021 is much larger (Figure 5.5). These remittances levels in percent of GDP are more in line with similar developing countries.

**Figure 5.4: Policy scenario of official and informal remittances, 2015–2030**



**Figure 5.5: Policy scenario of officially recorded remittances, 2015–2030**



Source: BGP 2C and Annex C.

### 5.3.2 Literacy/Skills Scenarios

The key assumptions about the impact of managed migration on literacy (as a proxy for skill level) center around the differences in migration propensities of unmanaged and managed migration, and the incentives of managed migration for individuals to start and complete primary education. Table 5.3 summarizes the assumptions, detailed here with some background information, an explanation of how managed migration may lead to brain drain, and how the effects can be reduced or compensated for.

- Section 5.2 and Figure 5.3 illustrated that even unmanaged migration has a tendency to lead to brain drain if migrants have a higher literacy education level than nonmigrants. Of course, if literate workers remain unemployed, then a brain drain may not actually take place.
- Managed migration may increase brain drain further depending on the composition of the type of migrants. It is assumed that all managed migrants have at least a primary education, as productive employment opportunities are essentially nil for illiterate managed migrants in sophisticated industrialized economies. This assumption reflects an emerging or even advanced discussion in GCC and OECD countries that illiterate migrants cannot be productively employed and should not be allowed migrate.
- Such a restriction on migrant candidates may lead them to acquire literacy even if they are not ultimately selected. A lottery effect with two versions is explored: (1) one in which it is determined endogenously that a multiplier of 2 is needed to stabilize the literacy rate in 2026 (when the first cohort, motivated in 2017, can migrate) – i.e., for every migrant leaving in 2026, 2 additional Afghans started primary school in 2017; and (2) one that assumes a much larger multiplier effect of 5. The latter value is very optimistic and serves to explore the effects of such a value for possible and worthwhile policy interventions to make them happen.

**Table 5.3: Assumptions behind literacy/skill scenarios of managed migration scenarios**

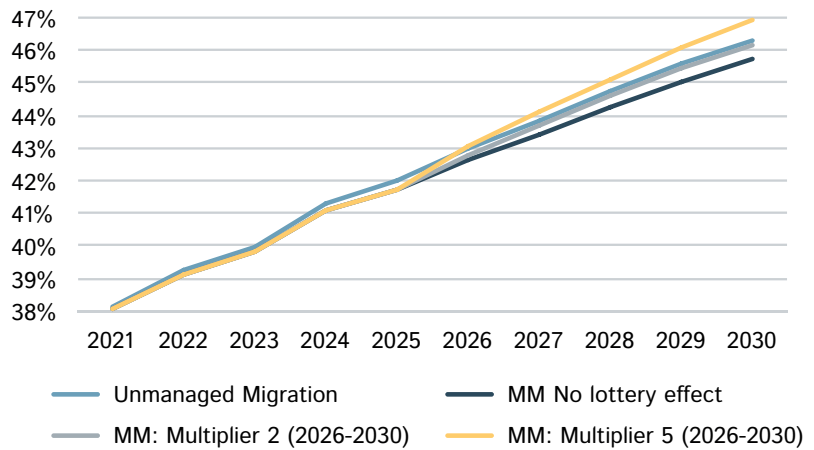
<b>Unmanaged migration</b>	Education level of unmanaged migrants is that of the youth population (15-30) adjusted by propensity to migrate by education level: illiterate (25%), primary (100%), secondary (50%), tertiary (50%).
<b>Managed migration (2021-2030): No lottery effect</b>	Migrants with managed migration have 60% primary, 35% secondary and 5% tertiary education.
<b>Managed migration (2021-2030): Multiplier of 2 (2026-2030)</b>	Educational multiplier (lottery effect) of 2: assuming information about managed migration is released in 2016, and a lag effect of 10 years, for every migrant under managed migration, 2 illiterate people gets primary education
<b>Managed migration (2021-2030): Multiplier of 5 (2026-2030)</b>	Educational multiplier (lottery effect) of 5: assuming information about managed migration is released in 2016, and a lag effect of 10 years, for every migrant under managed migration, 5 illiterate people gets primary education

Source: Author, based on team discussions.

Figure 5.6 shows the results of these assumptions (the data are presented in Annex C, Table DA6). Both unmanaged migration (as discussed under the baseline scenario) and managed migration have a notional brain drain effect. Compared to unmanaged migration (the baseline scenario), the effect of managed migration on brain drain without the lottery effect is small and negative. Any lottery effect needs to be sizable enough to compensate for the negative effect and will take some time to become effective. An education incentive multiplier of 2 that takes effect in 2026 is just about able to compensate for the brain drain associated with managed migration. An education incentive multiplier of 5 creates by 2030 about the same upward effect from the baseline as the downward effect of no lottery.

Other and more detailed skill enhancement effects emerging predeparture such as skill training, on-the-job training, and other learning effects (not investigated) may create additional differences. But given the time lag due to the migration period, they would not be strongly effective and visible within the explored timeframe. This delay should not deter Afghanistan from designing and implementing a managed migration scheme.

**Figure 5.6: Policy scenarios of literacy rate of the Afghan labor force, 2021-2030**



Source: Project calculations, BGP 2C, and Annex C.





# 6

## Computable General Equilibrium (CGE) Model Results

A limited number of techniques can be used to translate the policy scenarios into potential economic outcomes. A traditional method is to feed the selective estimates of the scenarios of remittances and/or skills into available estimated macroeconomic equations derived from cross-country (and preferably panel) data to get guidance on possible output, economic growth, or poverty effects. These econometric studies offer important insights into some partial economic effects of remittances on the welfare indicators of the population left behind. For instance, studying 71 developing countries, Adams and Page (2005) estimate that a 10 percent increase in remittances is associated with a 3.5 percent reduction in the proportion of poor households. Other studies use country micro-data on remittances availability and poverty level of households to establish the potential impact of remittances. For example in the Philippines, households that are able to send a member abroad have two or three times greater odds of escaping poverty (Ducanes 2015). Similar positive impacts on poverty have been found in Indonesia, Vietnam, and the Philippines (Ahsan et al. 2014; Adams and Cuecuecha 2014). Such effects are also envisaged for Afghanistan (World Bank 2005, Chapter 2).

While such estimations are also available for the effects of remittances (and less so for skills) on output and economic growth, the results of existing cross-country estimates face a number of methodological issues and the available results for a few countries are not that promising (e.g., Le Goff and Salomone 2013). As alluded to in prior sections this may come as little surprise. As cross-country regressions generally have little (statistical) power to detect an existing output/growth effect; furthermore, higher remittances from rising migration have measurable opportunity costs on the economic output (Clemens and McKenzie 2014). Such broadly neutralizing effects on output and growth may overshadow sizable but often unmeasured effects on, for example, consumption and poverty reduction.

This section reports on results derived from a country-calibrated CGE model with alternative exogenous policy scenarios. While the model is general and used for other countries in this and other cases, its parameters are country-calibrated (i.e., they should replicate country outcomes) and the modelling structure country-adjusted to take account of country specificities (the latter includes for Afghanistan an own activity/good category, namely opium as it has importance for the Afghan economy).

Economic theory suggests no or very limited (and not necessarily positive) effects of remittances on economic output, and even less so on economic growth. While remittances similar to foreign aid increase the domestically available national income, they have no direct impact on output. Such channels may be created: (1) through secondary effects of remittances on reduced poverty and thus potentially improved education outcomes, demand-side effects of private spending that lead to higher domestic investments; or (2) by alleviating a foreign exchange restriction that would otherwise reduce the needed import of investment goods (such as machinery) or consumption goods (such as pharmaceutical products). Yet similar to additional financial resources from foreign aid or a domestic oil discovery, remittances may also negatively impact output/growth: through exchange rate effects as the domestic currency appreciates, making domestic goods less competitive; through negative effects on domestic labor supply on the family left behind; or by simply accounting for the fact that those working abroad cannot contribute to domestic value-adding through formal or estimated home-production activities.

The estimated effects of remittances but also of improved literacy and high skills through a CGE model depend on the model structure and its assumptions. CGE models are not typically constructed to explore the effects of remittances or literacy but to explore more conventional shocks of policy changes (such as trade liberalization or new mining activities). This is also the case for the applied CGE model, which is very well structured but offers limited interactions of remittances and literacy changes to be explored. Despite these shortcomings, the CGE simulations were undertaken to gain insight into level effects and compensation mechanisms; these results may guide future work more finely attuned to managed migration needs.

Annex D provides a brief overview of the applied CGE model, the data used, and the calibration approach. This section presents the scenarios investigated, makes brief references to other studies that use CGE models to explore the effects of remittances, and reports on the results and offers an assessment.<sup>14</sup>

### 6.1 Simulated Policy Scenarios

The CGE team selected six core policy scenarios: two of them consider changes in remittances, without focusing on changes in labor force; two consider changes in the labor force; and the last two combine the strongest changes in remittances and labor force. In addition, the CGE team simulated other scenarios to analyze some of the forces behind the main simulation scenarios. Table 6.1 summarizes the scenarios simulated and the changes in the model parameters affected by each one.

**Table 6.1: Policy simulation scenarios**

Scenario	Change in remittances	Change in population	Change in labor force participation rate	Change in skill composition	Change in foreign aid
Run 1a	Medium remittances growth (31.6% average)	Low MM 1/ (average -0.06%)	Low MM (average -0.06%)	MM no lottery effect	Same as in baseline
Run 1b	High remittances growth (61.8% average)	Low MM (average -0.06%)	Low MM (average -0.06%)	MM no lottery effect	Same as in baseline
Run 2a	Baseline remittances growth	High MM (average -0.12%)	High MM (average -0.12%)	MM no lottery effect	Same as in baseline
Run 2b	Baseline remittances growth	High MM (average -0.12%)	High MM (average -0.12%)	MM multiplier 5	Same as in baseline
Run 3	High remittances growth (61.8% average)	High MM (average -0.12%)	High MM (average -0.12%)	MM multiplier 5	Same as in baseline
Run 3_aid	High remittances growth (61.8% average)	High MM (average -0.12%)	High MM (average -0.12%)	MM multiplier 5	Decrease in off-budget foreign aid with respect to baseline

Source: Afghanistan CGE model team.  
Notes: 1/ MM: managed migration

<sup>14</sup> This section is based on a write-up provided by Carmen Estrades from the University of Uruguay. She was in charge of CGE model exercise, including the simulation of the key growth option policy scenarios for Afghanistan.

Run 1a and 1b assume a high increase in remittances, but a low impact on population migration and changes in the labor market. On the other hand, Run 2a and 2b assume a strong impact on population migration, labor rates, and literacy rates, and a null impact on remittances compared to the baseline. Finally, Run 3 combines the strongest impact on remittances with the strongest impact on population and labor force. This scenario is then re-run assuming a smaller increase in off-budget foreign aid, with the aim of offsetting the impact of remittances on the real exchange rate.

### 6.2 Results from Other CGE Country Studies on the Effects of Remittances

All scenarios combine different shocks that have opposite and thus often mitigating effects on GDP and other macroeconomic variables. This is also the message of other country studies that have explored the impact of migration flows and remittances on GDP and labor market changes with country-calibrated CGE models. For example, Atamanov et al. (2008) demonstrate that for selected countries of the Commonwealth of Independent States, a migrant shock combining a reduction in remittances and an increase in labor supply negatively affects GDP through the remittances channel, but positively through the labor supply channel. The net effect, in all countries analyzed, is mostly explained by changes in the labor market. In most countries, the effect of a 70 percent fall in remittances on GDP is less than 0.5 percent with respect to base year. A similar low impact on GDP is found by Raihan et al. (2009), who simulate a 97 percent reduction in remittances in Bangladesh: GDP falls only 0.25 percent in this case. The authors only simulate changes in remittances, with a restrictive response in labor markets. However, if labor supply is endogenously modelled, the impact of remittances on GDP might be different. Bussolo and Medvedev (2007), in an analysis for Jamaica, find that remittances have a “flip side” effect on GDP, because an exogenous increase in remittances (they simulate a 10 percent rise) reduces labor supply as reservation wages increase, with an overall negative impact on GDP. In the model herein, labor supply is exogenous and changes in the different scenarios.

### 6.3 Policy Simulation Results

Most scenarios exhibit a positive impact on GDP, except scenarios Run 1a and Run 1b, in which increases in remittances are simulated under low levels of managed migration (Table 6.3). Higher levels of remittances (Run 1a, Run 1b, and Run 3) tend to reduce GDP because an increase in transfers from abroad exert pressure on the current account and the real exchange rate falls compared to the baseline scenario. Under high remittances scenarios, the real exchange rate appreciates, exports fall, and imports increase, affecting the long-term GDP growth rate with respect to the baseline scenario.

The fall in GDP can be explained by the decline in public expenditure and public investment due to a fall in public revenue that is triggered by appreciation of the real exchange rate. In all scenarios except the last, an equal increase in aid measured in foreign currency compared to baseline is assumed; this fosters the impact of increased remittances on the real exchange rate and the incidence on government income. Changes in real exchange rate also explain the decrease in private investment under these scenarios, as FDI measured in domestic currency falls.

On the other hand, the scenarios that simulate a higher increase in remittances have a positive impact on private consumption and household welfare, and poverty rates fall under these scenarios (Table 6.2 and Table 6.5). The increase in income is mostly linked to higher remittances and, to a lower extent, to higher wages among all types of workers. Wages among skilled workers increase because nontradable sectors, mainly private services, benefit from the currency appreciation. On the other hand, the exporting sectors negatively affected by the fall in real exchange rate are opium and mining, which more intensively use unskilled labor. As unskilled labor is liberated, the agriculture sector, which also more intensively employs unskilled labor, increases demand, which raises wages and expands the production of the sector.

The scenarios that have a positive impact on GDP are those that simulate stronger changes in the labor market due to managed migration policies. The increase in literacy among the working population has a long-run positive effect on labor productivity, which in turn has a positive impact on growth. Under these scenarios, employment increases more among highly skilled workers who receive a higher wage (Table 6.4). The increase in highly skilled labor supply pushes down wages among workers with different skills, and wages for illiterate workers rise.<sup>15</sup>

Government services, which hire more intensively skilled labor, grow more under these scenarios, and this explains an increase in public investment and public consumption, which in turn contributes to an increase in GDP.

Combining an increase in remittances with a high managed migration scenario (Run 3) obtains a positive though small impact on GDP. Under this scenario, similar to Run 1a and Run 1b scenarios, the real exchange rate falls as remittances increase, but unlike in those scenarios, public investment falls less, as the public sector benefits from the increase in literacy among the population. As a consequence, GDP increases slightly. Households' welfare and consumption increase and poverty falls due to the increase in remittances.

The Run 3\_aid scenario replicates the Run 3 scenario and simulates a reduction in off-budget aid, with the aim of counterbalancing the negative effect of remittances on real exchange rate. Under this scenario, GDP increases significantly with respect to the baseline, mainly explained by a fall in imports. However, the increase in GDP does not have a significant impact on welfare and poverty. Compared to the Run 3 scenario, the impact is very similar.

---

<sup>15</sup> Behind this mechanism, there is a low substitution among workers with different skill levels. When the elasticity of substitution among workers is higher, wages increase less, or fall, among all categories of workers. Among unskilled workers, this is explained by the fall in demand, as firms substitute workers and hire highly qualified workers. Among skilled workers, the increase in supply also explains a fall in wages with respect to the scenario with lower elasticity of substitution.

**Table 6.2: Macroeconomic impact: Percentage change with respect to baseline, 2030**

	Run1a	Run1b	Run2a	Run2b	Run3	Run3_aid
<b>GDP</b>	-0.1	-0.3	0.8	1.2	0.3	5.2
<b>Exports</b>	-5.4	-7.1	-0.6	-0.7	-7.9	-2.1
<b>Imports</b>	4.2	5.7	0.3	0.4	5.9	-2.2
<b>Private consumption</b>	10.0	12.0	-1.6	-2.1	10.8	1.7
<b>Public consumption</b>	-9.4	-12.5	5.1	7.1	-8.4	8.5
<b>Private investment</b>	-4.9	-6.5	0.1	0.2	-6.6	-1.0
<b>Public investment</b>	-19.5	-7.2	3.2	4.9	-3.9	-17.3
<b>Real exchange rate index</b>	-12.2	-15.6	0.9	1.4	-15.3	-4.63

Source: Afghanistan CGE model team.

**Table 6.3: Labor force share, average 2014–2030**

	2013	Base	Run1a	Run1b	Run2a	Run2b	Run3	Run3_aid
<b>Unskilled workers</b>	58,8	57,6	56,4	55,3	54,1	52,8	51,4	48,8
<b>Low-skilled workers</b>	10,9	11,0	11,0	11,0	11,0	11,1	11,1	11,4
<b>Medium-skilled workers</b>	22,3	23,0	23,7	24,4	25,2	25,9	26,6	28,1
<b>High-skilled workers</b>	8,1	8,5	8,9	9,3	9,8	10,2	10,7	11,7
<b>Total</b>	100	100	100	100	100	100	100	100

Source: Afghanistan CGE model team.

**Table 6.4: Impact on employment and wage growth, average growth rates 2014–2030**

	Base	Run1a	Run1b	Run2a	Run2b	Run3	Run3_aid
<b>Employment</b>							
<b>Total</b>	2.4	2.4	2.4	2.3	2.3	2.4	2.4
<b>Unskilled workers</b>	2.2	2.2	2.1	1.8	1.7	1.7	1.4
<b>Low-skilled workers</b>	2.4	2.4	2.4	2.3	2.4	2.5	2.6
<b>Medium-skilled workers</b>	2.6	2.8	2.9	3.0	3.1	3.4	3.6
<b>High-skilled workers</b>	2.7	2.9	3.2	3.4	3.6	4.0	4.4
<b>Wages</b>							
<b>Unskilled workers</b>	0.02	0.82	1.11	0.48	0.63	1.64	1.80
<b>Low-skilled workers</b>	-0.36	0.29	0.42	-0.40	-0.52	0.23	-0.21
<b>Medium-skilled workers</b>	0.85	1.01	0.80	0.19	-0.04	0.17	-0.29
<b>High-skilled workers</b>	0.74	0.69	0.30	-0.38	-0.78	-0.80	-1.63

Source: Afghanistan CGE model team

**Table 6.5: Households' welfare and consumption per capita, average growth rates 2014–2030**

	Base	Run1a	Run1b	Run2a	Run2b	Run3	Run3 aid
<b>Equivalent variation</b>	-0.2	10.7	12.8	-1.7	-2.3	11.5	11.3
<b>Consumption per capita</b>	0.0	0.6	0.7	-0.1	-0.1	0.7	0.7
<b>Headcount poverty index (%)</b>	18.1	17.9	17.8	18.2	18.2	17.9	17.9

Source: Afghanistan CGE model team.

The simulations suggest largely moderate and a few stronger effects of migration on economic outcomes with individual effects often compensated with regard to their impact on GDP. For example, noticeable differences arise in the skill composition of the labor force and major swings in public investment across the scenarios, but the impact on the poverty headcount remains low in all scenarios, while the effect on output is low and equivocal, except in the scenario of concurrent cuts of foreign aid. This is a byproduct of the general equilibrium approach, in which interactions due to price effects or simply accounting mechanisms take place and compensate. This becomes visible when a cut in foreign is simulated concurrently with the strongest remittance and literacy assumptions. The aid cut is severed to compensate for the appreciation effects on the exchange rate by the remittances and is successful, as GDP is well above the baseline value (by 5.2 percent). Compared to these simulated appreciation effects of remittances, the reported country effects are typically much lower, leaving more room for GDP expansion.

Such output level and compensation effects are in line with the results of other CGE models' simulations, as referenced in the prior subsection. Future CGE modeling efforts should attempt to determine how remittances may actually contribute to enhanced and sustainable growth through their effect on education, health, and poverty reduction, but also through creation of shock resilience or enhanced financial access.





# 7

## Summary and Next Steps

The report explores the use of managed labor migration as an employment and economic growth opportunity for the Afghan labor force. This potential employment and growth channel is of interest as Afghanistan's economic prospects are dim and hence its employment and growth options limited. To this end, the report highlights the supply of and demand for managed migration flows, and estimates policy scenarios that show the impact on the amount of remittances sent back and the possible impact of formal labor migration opportunities on skills formation of migrants and the labor force remaining at home. This final section briefly summarizes the policy scenarios, summarizes the results of the CGE modeling effort, sketches what next steps should be taken if managed migration fares well compared to the other limited employment and growth options, and outlines the potential roles for donors in such a policy approach.

### 7.1 Baseline and Policy Scenarios

In the baseline scenario of unmanaged migration, the moderate growth path of GDP projected by the World Bank for the period of investigation – rising from 1.9 percent in 2016 to 5 percent by 2030 – is too low and about only half of that needed to absorb the anticipated 400,000 new labor force entrants every year. The resulting estimated annual migration pressure and expected 200,000 net emigrants reflect the possible scope of future managed migration. Managed migration is understood to be a politically initiated administrative process of orderly departure and return of Afghan workers to host countries, where they stay for six years in a secure, formal, and decent job and receive a guaranteed salary; all arrangements are based on a formal BLA/MoU between Afghanistan and host countries.

The policy scenarios to explore the economic impact of managed migration emerge from mixing the low and high alternatives from assumptions about key variables. To keep the number of policy scenarios manageable they are ordered from low, low-middle, and middle-high to high and high+ by a ratcheting effect in the assumptions:

- Full substitution of unmanaged for managed migrants (low) or the scope to add on (high: one-third of managed migrants will add to unmanaged migration).
- The dynamics of managed migration: when it starts (assumed from 2021 onward), with what size, and with what acceleration. Alternatives range from 10,000–50,000 annually (low) to 20,000–100,00 (high).
- Recipient countries, as this impacts the intensity and amount of transfers: GCC (low) and OECD (high and high+).
- The effect of migration on skills/literacy acquisition before migration: an education incentive multiplier of 2 (low) versus a multiplier of 5 (high).

For total remittances (official and informally channeled), the baseline scenario selected a starting level of 5.9 percent of GDP, of which 1.7 percent of GDP came through official channels in 2015. In the baseline scenario of unmanaged migration, the official share of remittances in GDP rises from 1.7 percent in 2015 to 4.3 percent by 2030 as the result of high migration pressure and estimated migration flows. Assuming that all remittances emerging from managed migration are transferred via official channels, in most policy scenarios official remittances broadly double; under the highest policy scenario, the share in GDP almost triples, reaching 11.9 percent by 2030. The size of total (official and informal) remittances under the policy scenarios are about double the narrower official estimates with an increasing share of official flows.

Regarding the effect of migration on human capital development in Afghanistan, the available data allow only for exploring the possible impact on literacy. The baseline scenario of unmanaged migration offers an encouraging outlook as younger cohorts already have much higher literacy levels that gradually carry over into the whole labor force. Within the projection period, literacy rates increase from 33.4 percent in 2016 to 46.3 percent by 2030 in the baseline scenario, reflecting some “brain drain” as migrants have a higher literacy rate than nonmigrants. Managed migration will add to the brain drain, as only literate individuals are assumed to be candidates for migration. To counteract this effect, the analysis calculates how many migrant candidates would need to be motivated to become literate to compensate for each estimated, managed emigrant in 2026 (the first year new school entrants in 2017 would be able to go abroad). A multiplier of 2 is used as a low variant, and an assumed multiplier of 5 as a high variant. Due to the time lag in literacy acquisition, any “lottery effect” produced within the projection period will be small, a result that would be even more valid for more sophisticated measures of skill. However, over a longer time horizon, the lottery effects of skill preparation in addition to on-the-job skills upgrading abroad may not be trivial and require further elaboration.

## 7.2 Results of CGE Modelling

To explore the potential economic effects of alternative policy scenarios of managed migration, the project employs a CGE model that is calibrated on Afghanistan. The model serves to investigate the economic outcomes of managed migration but also of alternative policy options for the country.

The selected scenarios include three sets of policy assumptions: a set with medium and high remittances with low managed migration and without a lottery effect on literacy; a set with baseline remittances but high managed migration, with and without a managed migration multiplier on literacy; and a set that combines high remittances growth and high managed migration, with a baseline change in foreign aid and with a cut in foreign aid to neutralize the increase in the effective exchange rate.

The results of the CGE simulations suggest relevant but overall moderate effects of managed migration on the economic outcomes of interest. This is in line with the results of other CGE models on migration/the effects of remittances. Surprising are the strong mitigation effects that emerge from opposing impacts of the policy shocks on economic output. The simulations clearly indicate the importance of remittances in substituting for reduced external aid, as remittances help to overcome foreign exchange constraints and their impact on investment and growth. This aspect should not be underestimated in the context of Afghanistan. The simulations also suggest relevant output and employment effects from only moderate literacy/skilling increases triggered by managed migration. Remittances and literacy/skilling effects of managed migration together are able to compensate for the real exchange rate effect and create positive output, consumption (poverty), and employment and wage effects in the economy.

Future CGE simulations should attempt to model the key channels that empirical work on migration and remittances highlight: the positive impact of remittances on education and health; the positive impact of remittances on poverty; the positive impact of remittances on sustainable growth (e.g., through shock-absorption and institution-building properties); and the much less researched positive impact of managed migration on skill enhancement before, during, and after migration. All of these effects are promising for further employment and economic growth. None of them will happen without the right policies and institutions in place, however.

Independent of any economic growth effect, managed migration with sufficient add-on in numbers to unmanaged migration promises to help alleviate the labor market pressure brought by Afghanistan's very dynamic demographic developments.

### 7.3 Next Steps

The projected changes in resource flows under the managed migration policy scenarios are of a magnitude that will not happen automatically but will depend on the speed and depth of domestic policy actions taken. Such flows are bound to affect the Afghan economy, with outcomes that will not be independent of other policy choices and implementation capacity. The international empirical evidence on remittances and skill developments linked to migration suggests that these development and growth effects are difficult to detect across countries for data and methodological reasons; within countries, they are highly policy-dependent and not automatic.

The high variant policy assumptions were chosen to test what may be possible; the CGE policy simulations offer encouraging results to further explore the policy option of managed migration. An April 2016 draft by the MoLSAMD on “National Labor Policy 2016–2020” makes reference to a “Temporary Labour Migration Programme” as one of the employment policy options, an encouraging development.

This report highlights the key components needed to make managed migration a reality in Afghanistan (see BGP 3B for more details). But more analyses and preparation are needed to successfully design and implement a managed migration scheme. The critical elements center around the following items:

- (1)** Identifying actual host countries. To this end, BGP 3B’s exploratory SWOT analysis of potential host countries will need to be broadened to include other potential host countries and deepened for those countries already analyzed.
- (2)** Negotiating bilateral labor agreements or at least Memoranda of Understanding. BLAs typically take a long time to negotiate and even longer to implement. MoUs are legally not binding but offer more flexibility and are easier to negotiate and conclude. Experience from other countries suggests that any conclusion will be supported by having a clear understanding of own objectives and knowledge about the process that can be transmitted from other sending countries that may prove to be competitors.
- (3)** Establishing a governance structure for migration. Section 4 contains a long list of items that international experience suggests need to be done, a review of the current situation in Afghanistan, and proposals for priority actions to close the policy gap, all of which need to be reviewed, revised, and eventually deepened. Yet the most important government action for a successful start is to establish a workable governance structure for migration in Afghanistan.

#### 7.4 Possible Roles for Donor Countries

Traditional and new donors both have a major role in making managed migration of Afghan workers a reality. That role includes but may not be limited to the following support options:

**(1)** Receiving and managing Afghan migrants. Some GCC countries already doing so (often via entry points from neighboring countries such as Pakistan) may prefer a direct managed relationship. Several EU countries (in particular Austria, Germany, and Sweden) have sizable numbers of unmanaged Afghan migrants due to the 2015 wave of economic refugees. These countries may also prefer a managed migration approach instead of refusing asylum seekers considered economic migrants who cannot be returned. Still other countries (such as Malaysia and Australia) may be considering piloting a managed migration program with a new sending country.

**(2)** Assisting GoIRA with managed migration. The to-do list for successful managed migration is long. Some donor countries may be able to help GoIRA negotiate BLAs or at least MoUs, bilateral social security agreements, or bi/multilateral skill recognition agreements. Other donor countries may help GoIRA in the development of marketing strategies for Afghan workers, implementation of comprehensive departure training, or development and implementation of predeparture skills-enhancement programs.

**(3)** Sponsoring developments and capacity building. Some donor countries may prefer to sponsor a number of select programs that are developed and implemented by international organizations, national institutions, or national and international service providers. This gives them a seat at the table and some influence on the direction of migration without the administrative strains of the prior two options.

## References

- Adams, Richard, and John Page. 2005. "Do International Migration and Remittances Reduce Poverty in Developing Countries?" *World Development*, Vol. 33 (10): 1645-1669.
- Adams, Richard H., and Alfredo Cuecuecha. 2014. "The Economic Impact of International Remittances on Poverty and Household Consumption and Investment in Indonesia." Policy Research Working Paper 5433, World Bank, Washington, DC.
- Ahsan, Ahmad, Manolo Abella, Andrew Beath, Yukon Huang, Manjula Luthria, and Trang Van Nguyen. 2014. "Impacts of International Migration and Remittances on Labor-Sending Countries." Washington, D.C.: World Bank.
- Atamanov, Aziz, Matthias Luecke, Toman Omar Mahmoud, Roman Mogilevsky, Kseniya Tereshchenk, Natalia A. Tourdyeva, Ainura Uzagalieva, Vitaliy Vavryshchuk. 2009. *Income and Distribution Effects of Migration and Remittances: An Analysis Based on CGE Models for Selected CIS Countries*. CASE Network Reports 86. Center for Social and Economic Research: Warsaw.
- Barajas, Adolfo, Ralph Chami, Connel Fullenkamp, Michael Gapen, and Peter Montiel. 2009. "Do Workers' Remittances Promote Economic Growth?" IMF Working Papers WP/09/153 July. IMF: Washington, D.C.
- Beam, Emily A., David McKenzie, and Dean Yang. 2015. "Unilateral Facilitation Does Not Raise International Labor Migration from the Philippines." *Economic Development and Cultural Change*, Vol. 64(2): 323-368.
- Bird, A. William. 2016. "What Can Be Done to Revive Afghanistan's Economy?", Special Report. United States Institute of Peace: Washington, DC.
- Bodvarsson, Örn B., and Hendrik Van den Berg. 2013. "The Determinants of Migration", in *The Economics of Immigration: Theory and Policy*, Chapter 6. New York et al.: Springer, 27.57.
- Bussolo, Maurizio and Medvedev, Denis. 2007. "Do Remittances Have a Flip Side? A General Equilibrium Analysis of Remittances, Labor Supply Responses, and Policy Options for Jamaica." World Bank Policy Research Working Paper No. 4143. World Bank: Washington, D.C. Available at SSRN: <https://ssrn.com/abstract=964805>
- Central Statistics Organization of Afghanistan (CSO). Gross Domestic Product by Economic Activity in Constant Price. <http://cso.gov.af/en>
- Clemens, Michael A., and David McKenzie. 2014. "Why Don't Remittances Appear to Affect Growth?" Policy Research Working Papers 6856 May. World Bank: Washington, D.C.
- Clemens, Michael, Claudio Montenegro, and Lant Pritchett. 2009. "The Place Premium: Wage Differences for Identical Workers Across the US Border." HKS Faculty Research Working Paper Series RWP09-004, John F. Kennedy School of Government, Harvard University.

## References

- Ducanes, Geoffrey. 2015. "The Welfare Impact of Overseas Migration on Philippine Households: Analysis Using Panel Data." *Asian and Pacific Migration Journal*, Vol. 24(1): 79–106.
- Dustmann, Christian. 1997. "Return Migration, Uncertainty and Precautionary Savings." *Journal of Development Economics*, Vol. 52(2): 295–316.
- Dustmann, Christian, and Joseph-Simon Gorgach. 2016. "The Economics of Temporary Migrations." *Journal of Economic Literature*, Vol. 54(1): 98–136.
- Dustmann, Christian, Francesco Fasani, and Biagio Speciale. 2016. "Illegal Migration and Consumption Behavior of Immigrant Households." IZA Discussion Paper 10029 June. IZA: Bonn.
- Eurostat. 2016. "Enforcement of Immigration Legislation: Third Country Nationals Found to be Illegally Present." Eurostat, Luxembourg.
- Freund, Caroline, and Nicola Spatafora. 2005. "Remittances: Transaction Costs, Determinants, and Informal Flows." Policy Research Working Paper Series, No. 3704. World Bank: Washington, D.C.
- Holzmann Robert. 2003. "Reducing Poverty: The Role of Social Protection and Social Risk Management." In *Defining the Agenda for Poverty Reduction, Proceedings of the First Asia and Pacific Forum on Poverty*, ed. Isabel Ortiz, pp. 3–32. Manila: Asian Development Bank.
- Holzmann, Robert, and Steen Jorgensen. 2001. "Social Risk Management: A new conceptual framework for social protection, and beyond." *International Tax and Public Finance* 8(4): 529–556.
- Holzmann, Robert, and Rainer Muenz. 2004. *Challenges and Opportunities of International Migration for the EU, Its Member States, Neighboring Countries and Regions*. Stockholm: Institute for Futures Studies.
- Holzmann, Robert, and Yann Pouget. 2010. "Towards an Objective-Driven System of Smart Labor Migration Management." *Economic Premise* 42. Washington, D.C: World Bank.
- International Labour Organization (ILO). 2015. Key Indicators of the *Labour Market*, 9th edition. ILO: Geneva.
- International Monetary Fund. 2016. "Growth Projections for Afghanistan 2016–2030." Mimeo. IMF: Washington, D.C.
- International Organization for Migration (IOM). 2006. "Handbook on Establishing Effective Labour Migration Policies in Countries of Origin and Destination." <https://www.osce.org/eea/19242?download=true>
- IOM. 2014. "Afghanistan Remittance Overview and Trends." Geneva: IOM.
- Kapiszewski, Andrzej. 2006. "Arab Versus Asian Migrant Workers in The GCC Countries." UNDESA: New York. [http://www.un.org/esa/population/meetings/EGM\\_Ittmig\\_Arab/P02\\_Kapiszewski.pdf](http://www.un.org/esa/population/meetings/EGM_Ittmig_Arab/P02_Kapiszewski.pdf)

## References

- Ketkar, Suhas, and Dilip Ratha. 2010. "Diaspora Bonds: Tapping Diaspora during Difficult Times." *Journal of International Commerce, Economics and Policy*, Vol. 1(2): 251–263.
- KNOMAD. 2016. "Migration and Remittances Recent Developments and Outlook." Migration and Development Brief 26. World Bank, Washington: D.C. <http://pubdocs.worldbank.org/en/661301460400427908/MigrationandDevelopmentBrief26.pdf>
- Le Goff, Maelan, and Sarah Salomone. 2013. "Remittances: a Lifeline for Developing Countries?" Mimeo. [http://www.ferdi.fr/sites/www.ferdi.fr/files/pictures/le\\_goff\\_and\\_salomone.pdf](http://www.ferdi.fr/sites/www.ferdi.fr/files/pictures/le_goff_and_salomone.pdf)
- Mayda, Anna Maria. 2010. "International Migration: A Panel Data Analysis of the Determinants of Bilateral Flows." *Journal of Population Economics*, Vol. 23(4): 1249-1274.
- Maimbo, S. 2003. "The Money Exchange Dealers of Kabul: A Study of the Hawala System in Afghanistan." Working Paper No. 13, World Bank, Washington, D.C.
- Montenegro, C., and Harry Patrinos. 2013. "Returns to Schooling around the World." Background Paper for the *World Development Report 2013*. World Bank, Washington, D.C.
- Nyarko, Y., and S. Wang . 2016. "Asymmetric Information and Remittances: Evidence from Matched Administrative Data." Manuscript. New York University: New York.
- Orozco, M. 2007. "Estimating Global Remittance Flows: A Methodology." Inter-American Dialogue and International Fund for Agricultural Development: Rome.
- Raihan, Selim, Bazlul H. Khondker, Guntur Sugiyarto, and Shikha Jha. 2009. "Remittances and Household Welfare: A Case Study of Bangladesh." ADB Economics Working Paper Series No. 189, December, Asian Development Bank, Manila.
- Stark, Oded. 2004. "Rethinking the Brain Drain." *World Development*, Vol. 32 (1): 15–22.
- United Nations Department of Economic and Social Affairs. 2015. "Trends in international migration, 2015" Population Facts No. 2015/4. <http://www.un.org/en/development/desa/population/migration/publications/populationfacts/docs/MigrationPopFacts20154.pdf> (accessed February 2, 2016)
- United Nations High Commissioner for Refugees (UNHCR). 2015. "Statistical Online Population Database (SOPD)." UNHCR: Geneva.
- Wahba, Jackline. 2014. "Return Migration and Economic Development" In *International Handbook on Migration and Economic Development*, ed. Robert Lucas, Chapter 12, pp. 327–349. Edward Elgar: Cheltenham.



## References

- \_\_\_\_\_. 2015. "Who Benefits from Return Migration to Developing Countries?" IZA World of Labor, February. IZA: Bonn. <http://wol.iza.org/articles/who-benefits-from-return-migration-to-developing-countries.pdf>
- World Bank. 2005. *Afghanistan – State Building, Sustaining Growth, and Reducing Poverty*. Washington, DC: World Bank.
- World Bank. 2016a. *Migration and Remittances Factbook 2016*, 3rd edition. Washington, D.C.: World Bank. <https://openknowledge.worldbank.org>
- World Bank. 2016b. "Growth Projections for Afghanistan 2016–2030." Mimeo. World Bank, Washington, D.C.
- World Bank. 2016c. "Understanding the Labor Market in Saudi Arabia Results from Three Linked Quantitative Studies with Saudi Nationals, Firms/ Employers and Expatriate Workers." Policy Research Report, World Bank, Riyadh and Washington, D.C.
- World Bank. 2017. "From Inventive Labor Market Analyses to Innovative Policy Proposals: A Policy Report." Policy Research Report, World Bank, Riyadh and Washington, D.C..

## **Annex A: List of Background Papers and Authors**

BGP 1: “Managed Labor Migration in Afghanistan: A Brief Review of the Academic Migration Literature” By Yaw Nyarko (New York University) and Carole Chartouni (World Bank).

BGP 2A: “Managed Labor Migration in Afghanistan: Experience and Evidence with International Afghan Labor Mobility at Macro Level” By Daniel Garrote Sánchez (Lebanese Center for Policy Studies).

BGP 2B: “Managed Labor Migration in Afghanistan: Experience and Evidence with International Afghan Labor Mobility at Micro Level” By Daniel Garrote Sánchez (Lebanese Center for Policy Studies).

BGP 2C: “Managed Labor Migration in Afghanistan: Demographic Profile, Short-term Projections, and Supply of Migration in Afghanistan” By Daniel Garrote-Sánchez (Lebanese Center for Policy Studies).

BGP 3A: “Managed Labor Migration in Afghanistan: Identifying Host Countries for Managed Migration from Afghanistan” By Rebekah Smith (World Bank).

BGP 3B: “Managed Labor Migration in Afghanistan: Institutional Requirements and Policy Processes with and in Afghanistan” By Rebekah Smith (World Bank).

## Annex B: Estimates of Migration and Remittances<sup>16</sup>

### 1. Migration Flows

Due to the lack of detailed statistics for Afghanistan on both stocks and flows of migrants, it is necessary to make assumptions to obtain estimates of disaggregated migration flows. The Department of Economic and Social Affairs of the United Nations (UN DESA) provides data on the total stock of migrants every five years. Net flows of total migrants can thus be easily obtained as the changes in the stock. The first column in Table A1 shows the annual net flows by five-year periods. Using the same approach, the net flows of refugees are obtained as the changes in the stock of refugees, data provided by UNHCR Population Statistics (SOPD). Net flows of economic migrants are, in turn, approximated as the difference between the net flows of total migrants and the net flows of refugees. As economic migrants from Afghanistan typically are not accompanied by family members, this assumption seems justified.

In the case of refugees, UNHCR also provides annual flows of returnees, which are gross inflows to Afghanistan. Gross outflows of refugees can be calculated indirectly as a residual. However, the gross flows of economic migrants are more complicated to obtain due to lack of direct data. In consequence, certain assumptions are needed. According to the Afghanistan Living Conditions Survey (ALCS 2013/2014), the average duration of stay of an economic migrant abroad is about eight years. Using that information the annual inflows (returnees) can be calculated as one-eighth of the stock of migrants. As not all migrants return, this estimate is weighted by two-thirds, assuming that the other third will not return. As a next step, labor migrant outflows are obtained as the residual from the net outflows and inflows. Finally, gross flows of total migrants are the sum of the gross flows of labor migrants and refugees.

**Table A1: Annual gross and net flows of migrants in Afghanistan**

	Annual Net Flows				Gross Outflows			Gross Inflows		
	Total Migrants	Refugees	Labor Migrants	Migration Pressures	Total Migrants	Refugees	Labor Migrants	Total Migrants	Refugees	Labor Migrants
(96-00)	184640	181641	3000		438304	361044	77260	253664	179403	74261
(01-05)	-141533	-284237	142705	68000	786743	568590	218153	928276	852827	75449
(06-10)	234194	177712	56482	-38000	609478	421036	188442	375284	243324	131960
(11-15)	1485	-59246	60731	1000	224489	9831	215058	223403	69077	154327
(16-20)			205000	242921			410938			205938
(21-25)			228800	211995			526055			297255
(26-30)			162000	140982			540594			378594

Source: Own calculations based on KILM ILO 2015, UN DESA 2015, UNHCR 2015, and World Bank 2016.

Table A1 shows the estimated detailed flows of migrants during the last two decades. The annual net flows of total migrants followed large fluctuations mainly driven by movements of refugees. On the contrary, net labor migration flows were constantly positive (around 60,000 annually during the last decade), meaning that more Afghans left the country than returned, resulting in a constant increase in the stock of economic migrants.

<sup>16</sup> This Annex was drafted by Daniel Garrote-Sánchez under the guidance of Robert Holzmann.

During the last decade after the U.S. intervention, the gross outflows of refugees diminished drastically to 10,000, while those of economic migrants increased to over 200,000 annually. Regarding the gross return flows to Afghanistan, the joint efforts by UNHCR and neighboring countries to repatriate refugees boosted the magnitude of return refugees to 850,000 annually after 2000. However, the refugee return dynamic slowed down significantly in the last years, to inflows of less than 70,000 returnees between 2011 and 2015. In contrast, economic returnees increased over time, reflecting the larger stock of economic migrants living abroad.

The analysis of migration pressures derived from labor supply and demand mismatches shows that among the 400,000 Afghans entering the labor market every year, around 200,000 would have to migrate in search of economic opportunities during the next 15 years. Given the latest GDP estimates of the World Bank, past elasticities of employment to GDP (0.5–0.7), and projections of the supply of labor by UN DESA and KILM ILO, Table A1 includes the projected migration pressures until 2030, which would be initially high (240,000 annually for the period 2016–2020), and would then slowly fall to 210,000 in 2021–2025, and to 140,000 in 2026–2030.

If the migration pressures materialized into actual migration outflows, this would represent a significant increase compared to the net flows of 60,000 observed during the last decade. This is not due to large differences in the increase of labor supply derived from demographic pressures, but to the significant slowdown in economic activity projected by the World Bank and the International Monetary Fund, which will impact the capacity of labor demand to absorb the new workforce. If the economy maintains the same high growth rates as seen during the last decade (8.6 percent annually), applying the historical elasticities of employment to GDP (0.5–0.7), then labor demand will be able to keep pace with labor supply and thus the projected migration pressures will even be slightly negative. Nevertheless, this calculation takes into account neither past disequilibria in the labor market nor other forms of excess supply like underemployment (see Box A1 with caveats of the analysis). This might be the reason for the still significant net outflows of economic migrants during the economic boom of the last decade, as well as other pull factors like wage differentials.

**Box A1: Caveats of the analysis:  
Potential biases in the migration estimates**

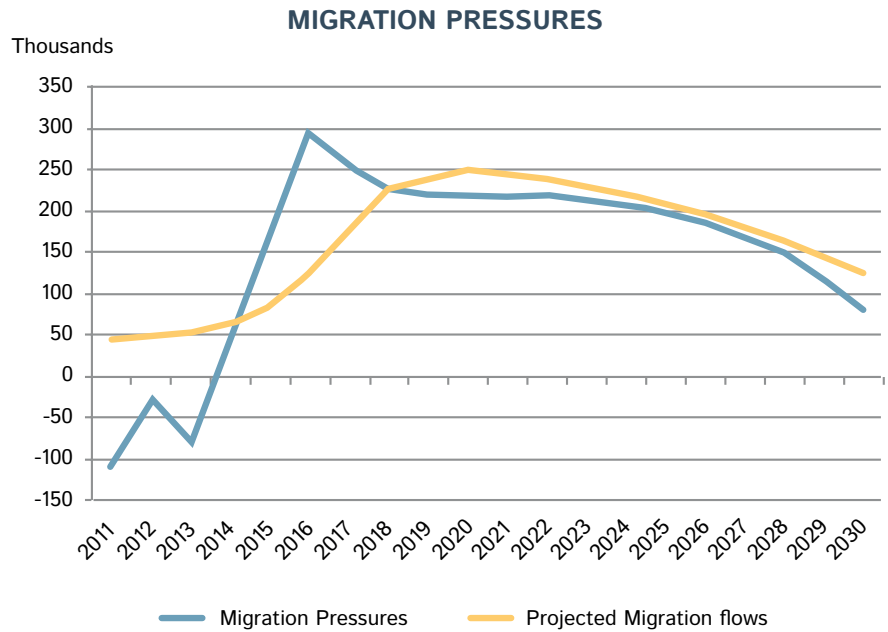
Estimating future migration flows based on simple projections of the supply of and demand for labor might hide some biases: (1) It takes into account whether people are employed or not, where the excess supply is the unemployment. However, close to 20 percent of those who work are under-employed (ALCS 2013/2014), indicating a further excess supply of labor; thus migration pressures are underestimated if they do not take this other measure into account; (2) It does not properly take into account past disequilibria in the labor market that did not translate into migration, thus creating further downward biases; and (3) As not all who face pressure to migrate actually leave the country, estimating migration flows through labor market disequilibria analysis (migration pressures) may create an upward bias.

---

<sup>17</sup> See section 3 of this report and BGP 2C.

However, the excess supply of labor (migration pressures) does not fully materialize instantly into actual migration as some people may use savings, remittances, or other safety nets before deciding to migrate. Taking this into account, the projected net migration flows until 2030 show a slower rise during the initial period of 2016–2020 (205,000 annual net outflows), an increase to 230,000 for 2021–2025, and later moderation of those flows to 160,000 for 2026–2030 (column 3 of Table A1). In the same vein, Figure A1 shows the estimated annual migration pressures as well as the projected net outflows: the sudden rise in excess supply does lead to less migration, but it then compensates for the accumulation of disequilibria in the labor market for the period 2014–2018 with more persistent outflows until 2030.

**Figure A1: Annual migration pressures and projected net migration outflows, 2011–2030**



Source: BGP 2C and Annex C.

## 2. Remittance Outflows

As presented in BGP 2A, the Central Bank of Afghanistan (Da Afghanistan Bank) estimated remittance inflows in Afghanistan at US\$342 million in 2015, equivalent to 1.7 percent of GDP. During the last decade, remittances inflows in Afghanistan were volatile although with a general upward trend. Since the global financial crisis in 2008, remittances to Afghanistan have increased threefold. However, official data understate the real magnitude of remittances in the country, as a significant share of remittances in Afghanistan are conjectured to be transferred through networks of informal brokers ('hawala' dealers) that are barely monitored and not included in official statistics. According to informal communication with representatives of Da Afghanistan Bank, only 10 percent of hawala dealers are registered, which could imply that real remittances are up to 10 times higher than the official figures.

The ALCS (2013/2014) also points to a similar estimate of remittance inflows of around US\$340 million. However, household surveys may have a downward bias due to: (1) a general mistrust that usually leads people to underreport their money transactions; and (2) the incomplete nature of the questionnaire, such that remittances can only be approximated. Remittances in the ALCS can only be obtained when they represent one of the three main sources of income (which is the case for 6 percent of households) and/or when households answer that they have a member who left the household within the last year (recent out-migrants).

Comparing the share of households receiving remittances as one of their three main sources of income with IS Academy survey data indicates that this omission could be small (6 percent in the ALCS compared to 7.6 percent in the IS Academy survey). If the 1.6 percent differential households had received remittances of a smaller magnitude than those who said that remittances represented their third source of income (15 percent of their total income), then this omission would be very small and the total amount of remittances would remain below 2 percent of GDP (scenario 2 in Table A2). Even if the amount of remittances of the extra 1.6 percent of households was equal to the average of all recipients (US\$1680, somewhat more than half of the income), remittances would add to 2.2 percent of GDP (scenario 3), and only in the case of 10 percent of beneficiary households would the amount reach 3 percent (scenario 4).

However, more problematic is the implied low number of migrants who send money home. This might reflect the usual problem of underestimation of remittances by household surveys as they might face selection bias (undersampling specific groups of the population) and underreporting of monetary information (as remittances) due to mistrust or fear of taxation (Freund and Spatafora 2005). These biases can be particularly relevant in a post-conflict environment like that of Afghanistan. According to the ALCS, more than three-fourths of remittances are received by the 125,000 households that have a member who left the country during the last year, representing 160,000 current international migrants. This number is significantly lower than the estimated 2.2 million labor migrants currently living abroad.<sup>18</sup> Therefore, only newly migrated Afghans, who represent only 7 percent of the total labor migrants, seem to send the vast majority of remittances. This oddity is at the core of the divergence between ALCS estimates and surveys of sender migrants in third countries. Scenario 5 includes the average amount of remittances and the share of new out-migrants obtained in the ALCS, and multiplies that by the total number of labor migrants derived from UN DESA, resulting in a much larger estimate of 16.1 percent of GDP, more in line with other analysis like that of Orozco (2012) and close to 10 times that suggested by the share of hawala dealers not registered by Da Afghanistan Bank. This figure represents an upper bound and might actually overstate the value of remittances. Migrants are usually less likely to remit the more they stay in a foreign country (as they lose social ties with their native country), so extrapolating the behavior of recent migrants to the overall labor migrant population will bias the results. Taking into account this fact, scenario 6 assumes that the share of migrants who send money home is gradually reduced the longer the duration of their stay abroad (and reaches 0 percent for those who stay over 10 years). This assumption yields remittance estimates of around 6 percent of GDP (Table A2). Finally, scenario 7 assumes that as the average duration of the newest wave of economic migrants is around five years, during that cycle migrants have similar patterns of sending money (to those who leave the country within less than a year), resulting in estimates of 6.9 percent of GDP.

Taking all this available information into consideration, it seems that the current value of remittances is likely between 3–7 percent of GDP, with a central tendency (scenario 6) of 6 percent of GDP.

---

<sup>18</sup> This figure does not take into account all the refugee migrants living abroad and that due to their longer duration of stay abroad and that most left with their entire families, they have significantly less social networks and thus are expected to remit much less.

**Table A2: Remittances sent by recent Afghan out-migrants by host country**

	Amount (millionUS\$)	%GCP
1) Baseline	344	1,7
Of which		
HH member left the house last year	267	1,3
Others: HH returnees or seasonal workers	77	0,4
2) Extra 1.6% of HH with lower share of income (10%)	364	1,8
3) Extra 1.6% of HH with average remittances (1680 US\$)	446	2,2
4) Extra 4% of HH with average remittances (1680 US\$)	599	3,0
5) # Labor Migrants (UN DESA) and % of recent migrants (1 year) who remit (75%) and amount ALCS	3290	16,1
6) # Labor Migrants and reduction of share who remit with duration of stay (7.5% per year, so no remittance after 10y)	1212	5,9
7) Average duration (5years)* remittance of HH members that left last year +Remit by HH returnees or seasonal worker	1412	6,9
CSO (2015)	342	1,7
Orozco (2012)		16,3

Source: Own calculations based on ALCS 2013/2014, UN DESA 2015, CSO 2015, and Orozco 2012.

According to the ALCS, the share of labor out-migrants who send remittances as well as the average amount that they send vary significantly depending on the country in which migrants live (Table A3). While almost all Afghan migrants in GCC countries send money home (93 percent), less than half in Pakistan do. This might reflect both the better economic opportunities and the somewhat different nature of economic migration in both countries (while Afghans go to the GCC with the sole objective of working to send money home, they go to Pakistan for other reasons, such as marriage or education). Among those who remit, the amount sent also varies significantly, from US\$92 monthly in Iran to US\$335 in OECD countries. As wages in OECD countries and (to an even lesser extent) in the GCC are higher, Afghan migrants in those countries have the ability to remit more money, even if they remit the same share of their total salary.

**Table A3: Remittances sent by recent Afghan out-migrants by host country**

	Number	Share	% Send Remittances	Average Amount Sent		
				Annual (Afghanis)	Annual (US\$)	Monthly (US\$)
Total	160497	100%	75%	108483	1958	163
Pakistan	364	1,8	43%	123344	2226	186
Iran	446	2,2	77%	61443	1109	92
Gulf	599	3,0	93%	184758	3335	278
OECD	3290	16,1	55%	222667	4019	335

Source: ALCS 2013/2014.



The projections of additional net annual outflows of 200,000 Afghan migrants during the next years derived from the expected labor supply and demand mismatches will significantly boost remittance levels. Assuming no change in the geographical patterns of labor migration, the share of migrants who remit, and the average amount remitted as observed by recent out-migrants in the ALCS (2013/ 2014), remittance inflows would increase close to US\$300 million annually, or 1.4 percent of GDP. The two main sending regions would be Iran and the GCC (above US\$100 million), with somewhat less coming from OECD countries. If the geographical patterns of migration change due to managed migration and focus more on developed countries like those in the GCC and less on neighboring Iran and Pakistan, remittance flows could increase even more (two- to threefold).

**Table A4: Annual projected increase in remittance inflows to Afghanistan by source, 2015–2020**

(m.US\$)	Projected annual increase (2015-2020)
WORLD	292
Pakistan	6
Iran	104
Gulf	102
OECD	70

Source: Own calculations.

### 3. Migration and Skills

With the exception of the early migration during the Soviet invasion in the 1980s and 1990s when the highly skilled Afghan elite left the country,<sup>19</sup> emigration has not been biased toward the most educated, and has thus not generated a problem of “brain drain” in Afghanistan. The different rounds of household surveys in the country during the 2000s (the National Risk and Vulnerability Assessment) show no significant differences in the level of education of the nonmigrant population and those that migrated abroad (IOM Afghanistan Migration Profile 2014).

According to the most recent ALCS (2013/2014), returnees have somewhat higher literacy rates than Afghans who never left the country (Table A5). Comparing Afghans who went to Iran (mostly refugees) with those who never left or returned, some differences appear, pointing to some degree of self-selection. While the overall level of education is low, migrants in Iran have higher levels of literacy and lower levels of higher education. At the same time, there is self-selection among those migrants who decided to return to Afghanistan, as the share of returnees with higher education (secondary and tertiary) is higher than that of those who decided to stay in Iran. The overall process of self-selection of migrants and returnees does not lead to broad changes, although those who stay abroad are more concentrated in the group of literate but low-educated people. While abroad, migrants in Iran (as in other countries like Pakistan or the GCC) do not get extensive access to education, and thus migration does not lead to significant increases in education levels.

**Table A5: Comparison of education, skill level, and sector of employment of migrants and stayers**

	Male skill-set			
	Non Migrants Afghanistan	Afghans in Iran	Returnees from Iran	Total Returnees
<b>Education level</b>				
No education	55%	44%	45%	42%
Primary	25%	41%	25%	27%
Secondary	21%	13%	27%	30%
Tertiary	5%	1%	5%	8%
<b>Skill Level</b>				
High-skilled White-collar	7%	2%	6%	9%
Low-skilled White-collar	23%	6%	24%	27%
High-skilled Blue-collar	46%	38%	38%	33%
Low-skilled Blue-collar	25%	54%	32%	30%
<b>Sector of employment</b>				
Agriculture	41%	18%	28%	24%
Manufacturing	3%	19%	6%	6%
Construction	16%	43%	23%	20%
Trade	14%	13%	16%	17%
Services	25%	7%	26%	33%

Source: ALCS 2013/2014 and Iranian Census 2006.

<sup>19</sup> During this period, many highly educated professionals (doctors, professors, etc.) fled to Western countries, in particular the United States and Germany.

The vast majority of Afghans in neighboring countries work in low-skilled manual jobs. In Iran, Afghans are restricted to work in low-skilled jobs and thus do not have incentives to become more educated (as this results in very low returns to education). As shown in Table A5, only 8 percent work in white-collar jobs. These difficulties in accessing higher-skilled, non-manual jobs exert a push factor for more educated Afghans to return home. In the same vein, the IS Academy survey (2012) shows that only a small number of return migrants received training (3.6 percent) or education (5.3 percent) while living abroad. In broad terms, migration does not allow Afghans to significantly increase their formal skills (in either education or job training), so the “brain gain” once migrants return to Afghanistan is also limited.

Nevertheless, many migrants shift sectors of employment within the low-skilled jobs while abroad. These changes can provide certain new skills. On one hand, agriculture plays a much smaller role among male Afghans in Iran (18 percent) compared to those that never left the country (41 percent). On the contrary, Afghans in Iran work more in the construction sector (43 percent) and, to a lesser degree, manufacturing (19 percent). To the extent that migrants learn new skills in different sectors (even within the low-skilled jobs), this could be advantageous once they return to Afghanistan. However, migrant returnees often have to adjust again to the needs of the Afghan labor market. As such, the share of returnees working in the construction sector is much lower than for those who stayed in Iran, and closer again to those Afghans who never left the country. As a consequence of the Afghan labor demand conditions, the potential upskilling derived from migrants shifting jobs to new sectors (e.g., construction) when abroad seems not to be used in the Afghan economy when they return.

Another potential channel through which migration can improve the skill level in the country is if it reduces financial constraints or incentivizes and makes migrant households value more highly the education and training of their children. However, regression analysis with ALCS data show that children of returnees or of families with a member abroad are not more (or less) likely to attend school. Only families with seasonal workers (among which there is a higher share of the Kuchi population) are less likely to send their children to school.

Overall, the current nature of migration to neighboring countries, while it helps to sustain the living conditions of Afghan households, does not promote a significant increase in education (neither through better or more education abroad nor through incentivizing to become educated at home) or in upskilling, with general low returns to education and skills. Sectoral changes in employment while migrants are abroad afford some room for upskilling within manual low-skilled jobs, but the mismatch between those new skills and what the economy demands prevents individuals from making productive use of them.

## Annex C: Results of Policy Scenarios

**Table DA1: Assumptions behind remittances scenarios of managed migration**

	Baseline	Low	Low-middle	Middle-high	High	High+	Average
MM (as of 2021)	None	10,000 to 50,000	10,000 to 50,000	20,000 to 100,000	20,000 to 100,000	20,000 to 100,000	15,000 to 75,000
Substitution vs Add-on	None	Substitution	Add-on 1/3	Add-on 1/3	Add-on 1/3	Add-on 1/3	Add-on 1/6
MM destination country	None	GCC	GCC	GCC	OECD	OECD	GCC & OECD
Annual remit. amount sent through MM	None	3335 US\$ pc	3335 US\$ pc	3335 US\$ pc	4019 US\$ pc	6670 US\$ pc	6670 US\$ pc

Source: ALCS 2013/2014 and la Source: Author, based on team discussions ranian Census 2006.

**Table DA2: Policy scenarios – total remittances by value (million US\$)**

	Baseline	Low	Low-Middle	Middle-High	High	High II	Average
2015	1200	1200	1200	1200	1200	1200	1200
2016	1377	1377	1377	1377	1377	1377	1377
2017	1631	1631	1631	1631	1631	1631	1631
2018	1957	1957	1957	1957	1957	1957	1957
2019	2296	2296	2296	2296	2296	2296	2296
2020	2650	2650	2650	2650	2650	2650	2650
2021	2996	3012	3017	3038	3051	3100	3057
2022	3336	3375	3387	3439	3470	3590	3485
2023	3661	3731	3753	3844	3899	4112	3926
2024	3972	4081	4113	4254	4339	4666	4380
2025	4268	4421	4467	4667	4787	5251	4845
2026	4543	4750	4811	5079	5240	5862	5318
2027	4798	5048	5122	5447	5641	6394	5736
2028	5031	5324	5412	5793	6021	6905	6133
2029	5236	5573	5674	6111	6373	7388	6501
2030	5413	5793	5907	6401	6696	7842	6841

Source: Project estimates.

**Table DA3: Policy scenarios – total remittances as a % of GDP**

	Baseline	Low	Low-Middle	Middle-High	High	High II	Average
2015	5.9	5.9	5.9	5.9	5.9	5.9	5.9
2016	6.6	6.6	6.6	6.6	6.6	6.6	6.6
2017	7.6	7.6	7.6	7.6	7.6	7.6	7.6
2018	8.8	8.8	8.8	8.8	8.8	8.8	8.8
2019	10	10	10	10	10	10	10
2020	11.1	11.1	11.1	11.1	11.1	11.1	11.1
2021	12	12.1	12.1	12.2	12.2	12.4	12.3
2022	12.9	13	13.1	13.3	13.4	13.9	13.4
2023	13.6	13.8	13.9	14.2	14.5	15.2	14.6
2024	14.1	14.5	14.6	15.1	15.4	16.6	15.6
2025	14.6	15.1	15.2	15.9	16.3	17.9	16.5
2026	14.8	15.5	15.7	16.6	17.1	19.1	17.4
2027	15	15.8	16	17	17.6	20	17.9
2028	15	15.9	16.2	17.3	18	20.6	18.3
2029	14.9	15.9	16.2	17.4	18.2	21.1	18.5
2030	14.7	15.7	16	17.4	18.2	21.3	18.6

Source: Project estimates.

**Table DA4: Policy scenarios – official remittances as a % of GDP**

	Baseline	Low	Low-Middle	Middle-High	High	High II	Average
2015	1.7	1.7	1.7	1.7	1.7	1.7	1.7
2016	1.9	1.9	1.9	1.9	1.9	1.9	1.9
2017	2.2	2.2	2.2	2.2	2.2	2.2	2.2
2018	2.6	2.6	2.6	2.6	2.6	2.6	2.6
2019	2.9	2.9	2.9	2.9	2.9	2.9	2.9
2020	3.2	3.2	3.2	3.2	3.2	3.2	3.2
2021	3.5	3.5	3.6	3.7	3.7	3.9	3.7
2022	3.7	3.9	3.9	4.1	4.2	4.7	4.3
2023	3.9	4.2	4.3	4.6	4.8	5.6	4.9
2024	4.1	4.5	4.6	5.1	5.4	6.6	5.5
2025	4.2	4.7	4.9	5.6	6	7.6	6.2
2026	4.3	5	5.2	6	6.6	8.6	6.8
2027	4.3	5.1	5.4	6.4	7	9.3	7.3
2028	4.4	5.2	5.5	6.6	7.3	10	7.6
2029	4.3	5.3	5.6	6.8	7.6	10.5	7.9
2030	4.3	5.3	5.6	6.9	7.7	10.9	8.1

Source: Project estimates.

**Table DA5: Assumptions behind literacy/skill scenario of manage migration scenarios**

<b>Unmanaged migration</b>	Education level of unmanaged migrants is that of the youth population (15-30) adjusted by propensity to migrate by education level: illiterate (25%), primary (100%), secondary (50%), tertiary (50%).
<b>Managed migration (2021-2030): No lottery effect</b>	Migrants with managed migration have 60% primary, 35% secondary and 5% tertiary education.
<b>Managed migration (2021-2030): Multiplier of 2 (2026-2030)</b>	Educational multiplier (lottery effect) of 2: assuming information about managed migration is released in 2016, and a lag effect of 10 years, for every migrant under managed migration, 2 illiterate people gets primary education
<b>Managed migration (2021-2030): Multiplier of 5 (2026-2030)</b>	Educational multiplier (lottery effect) of 5: assuming information about managed migration is released in 2016, and a lag effect of 10 years, for every migrant under managed migration, 5 illiterate people gets primary education

Source: Author, based on team discussions.

**Table DA6: Policy scenarios – literacy rates of labor force**

	No Migration	Unmanaged Migration	Managed Migration (2021-2030)		
			No lottery effect	Multiplier 2 (2026-2030)	Multiplier 5 (2026-2030)
2013	28.60%	28.60%	28.60%	28.60%	28.60%
2014	30.90%	30.80%	30.80%	30.80%	30.80%
2015	32.30%	32.00%	32.00%	32.00%	32.00%
2016	34.00%	33.40%	33.40%	33.40%	33.40%
2017	35.40%	34.40%	34.40%	34.40%	34.40%
2018	37.20%	35.70%	35.70%	35.70%	35.70%
2019	38.40%	36.40%	36.40%	36.40%	36.40%
2020	39.90%	37.50%	37.50%	37.50%	37.50%
2021	41.00%	38.10%	38.10%	38.10%	38.10%
2022	42.40%	39.20%	39.10%	39.10%	39.10%
2023	43.50%	40.00%	39.80%	39.80%	39.80%
2024	45.10%	41.30%	41.10%	41.10%	41.10%
2025	46.00%	42.00%	41.70%	41.70%	41.70%
2026	47.10%	43.00%	42.60%	42.80%	43.10%
2027	48.00%	43.90%	43.40%	43.70%	44.10%
2028	49.00%	44.70%	44.20%	44.60%	45.10%
2029	49.80%	45.60%	45.00%	45.50%	46.10%
2030	50.50%	46.30%	45.70%	46.20%	46.90%

Source: Project estimates.

## Annex D: Basic Information on the Applied CGE Model

### 1. The CGE Model

The applied model is a dynamic, country-specific Computable General Equilibrium (CGE) model developed at the World Bank, named MAMS (Maquette for MDG Simulations). The model is suitable for the purpose of exploring public interventions as it has a detailed modelling of the public sector. It has been applied in numerous studies for developing countries, among them for Afghanistan (Hogg et al. 2013). The model structure and its equations are presented in detail in Lofgren et al. (2010).

It is a recursive dynamic model, divided into two modules, “within-period” and “between-period,” integrated into a system of simultaneous equations. The “within-period” module is essentially a static CGE model that models production, consumption, and investment decisions in the economy at any given moment. The “between-period” module provides the dynamic decisions of agents by linking periods through the update of some parameters (factor supply, factor productivity) based on the path of some exogenous variables and the value of endogenous variables in the previous period. Growth is modeled by the accumulation of production factors (capital and labor) and by their productivity. In each period, the model accounts for the decisions and payments regarding production, consumption, foreign trade, taxation, as well as transfers between institutions and links between factors and institutions.

Production is carried out by activities that produce commodities through the use of factors and intermediate inputs. Consumption and investment are made by the institutions; i.e., households, government, and the rest of the world. The institutions are the providers of factors (labor, capital). The aggregation level of the model is flexible in terms of number of activities and commodities, factors, and institutions.

The government finances public investment with public savings and by borrowing from domestic institutions and from the rest of the world. The model also considers the effects of public investment on total factor productivity as an externality factor resulting from public investment in infrastructure.

---

<sup>20</sup> This Annex is based on a write-up prepared by the CGE team leader for the simulation of alternative policy options, Carmen Estrada (University of Uruguay).

## 2. Data and Calibration

The main source of information for any CGE model is the Social Accounting Matrix (SAM). As the available SAM for Afghanistan was for year 2009–2010, the team built a new SAM for fiscal year 1392, which runs from December 21, 2012 to December 21, 2013.

The CGE team defined eight activities and nine goods. Each activity produces one specific good, and the ninth good is part of the intermediate and final consumption in the economy, but is completely imported and not produced by any domestic activity. Agriculture, Mining, Industry, and Services activities were defined following the national accounts definition of Afghanistan. The team also included a sector dedicated to the production of opium, which does not appear in official statistics. On the other hand, government activities and donation activities are included, in both cases distinguished from civilian and military activities.

### **Activity - Goods**

---

Agriculture

---

Opium

---

Mining

---

Industry

---

Government (Civilian)

---

Government (Military)

---

Donation (Civilian)

---

Donation (Military)

---

Services

---

Goods exclusively imported

Production factors were classified into nine categories. In the case of labor, the team distinguished four categories according to years of schooling (illiterate, primary education, secondary education, and higher education). For capital, five categories were defined: one private capital factor common to all activities and four specific capital factors associated with the agriculture, opium, mining, and public sectors. In the first three cases, this factor relates to natural resources (land, mines), whereas in the case of the public sector, the capital factor is obtained through public investment.

The economy has three institutional sectors: households, government, and donors.

The gross output (GO) for each activity was determined from the structure of Intermediate Consumption (IC) and gross domestic product (GDP) in SAM 2009–2010. In the case of agriculture, industry, donations, and services activities, information was taken from national accounts GDP data. In the case of the opium sector, the GO estimation for 2013 is taken from the UN Report on the Annual Survey Opium in Afghanistan,<sup>21</sup> and the IC and GDP structure for the sector are from SAM 2009–2010. For government and donations activities, the GO structure was determined from the fiscal data provided by the World Bank staff (WB).<sup>22</sup> The value of intermediate consumption was distributed among different goods following the structure of SAM 2009–2010.

The tax component on goods of GDP was taken from the income tax data provided by the World Bank<sup>23</sup>, and was distributed between the sectors of agriculture, industry, and services under the structure in the SAM 2009–2010.

The aggregate import and export information for the reference year was taken from the national accounts. The distribution between different goods follows the structure resulting from the reports of the Central Statistic Organization (CSO)<sup>24</sup> and the value of imports and exports.<sup>25</sup>

Households' income consists of the factor remuneration received by households, transfers from the government, and remittances. Factor remuneration is determined as described above. Transfers from the government are taken from fiscal data, and the net private flow transfers from the rest of the world are from the Annual Statistical Bulletin of the Central Bank of Afghanistan.<sup>26</sup>

The aggregate household consumption is made up of five components: consumption of goods of agricultural, industrial, and services activities, and of a fourth good that is entirely imported. The distribution of household consumption value from national accounts between these four components is carried out according to the structure of household consumption SAM 2009–2010. The fifth component is domestic consumption of goods produced by the opium activity, taken from Afghanistan Opium Survey 2013.<sup>27</sup>

Information on direct taxes paid to the government comes from fiscal data.

The public sector is composed of two institutional sectors, the government and donations. Each one consumes two goods. The government consumes goods from civil and military government activities. Similarly, donation sector consumption consists of goods produced by military and civil donation activities. The consumption of these goods emulates the on- and off-budget civilian and military spending.

The government makes social transfers to households. The value of transfers is obtained from tax information,<sup>28</sup> and the distribution among households follows information from ALCS 2013–2014. Data on foreign interest payments by the government are taken from the Central Bank of Afghanistan.

Savings and investment are determined as the difference between income and expenditure for each agent. Investment is split into private and public investment, also disaggregated between public investment and infrastructure investment.

---

<sup>21</sup> Afghanistan Opium Survey 2013 Summary findings, UNODC, November 2013.

<sup>22</sup> World Bank Staff

<sup>23</sup> World Bank Staff

<sup>24</sup> <http://cso.gov.af/en>

<sup>25</sup> <http://cso.gov.af/en/page/economy-statistics/6323/annual-trade>

<sup>26</sup> Annual Economic and Statistical Bulletin FY 1392, Da Afghanistan Bank, January 2014.

<sup>27</sup> Afghanistan Opium Survey 2013 Summary findings, UNODC, November 2013.

<sup>28</sup> World Bank Staff



## References

Hogg, Richard, Claudia Nassif, Camilo Gomez Osorio, William Byrd, and Andrew Beath. 2013. "Afghanistan in Transition - Looking beyond 2014." *Directions in Development – Countries and Regions*. Washington, DC: World Bank.

Lofgren, Hans, and Carolina Diaz-Bonilla. 2010. "MAMS: An Economy-Wide Model for Analysis of MDG Country Strategies – An Application to Latin America and the Caribbean." In *Public Policies for Human Development: Feasible Financing Strategies for Achieving the MDGs in Latin America and the Caribbean*, ed. Marco V. Sanchez, Rob Vos, Enrique Ganuza, Hans Lofgren, and Carolina Diaz-Bonilla, Chapter 71-126. Joint Project of UNDP, UN/DESA, UN/ELAC, and the World Bank. Palgrave Macmillan: New York.

