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The World Bank's Strategy for Reducing Poverty and Hunger

A Report to the Development Community

Prepared by Hans P. Binswanger and Pierre Landell-Mills

*Foreword by Lewis T. Preston
Preface by Ismail Serageldin*



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Foreword

Hunger in the midst of plenty is one of the most difficult development challenges of our time. Aggregate food production continues to increase; yet hunger also continues to blight the lives of hundreds of millions of people. Hunger is sometimes caused by drought, disease, or war—and there is always a need for a strong humanitarian response in those cases. But the more widespread and deep-rooted form of hunger is caused by people having neither the capacity to produce food, nor the income to buy it. Fundamentally, hunger is caused by poverty.

If we want to reduce hunger effectively, we have to reduce poverty—and that requires action across a broad spectrum:

- Supporting government policies that encourage growth and employment for the poor, and removing policies that discriminate against agriculture and peasant farmers
- Investing in people's capacities through education, health, family planning, and nutrition

- Implementing better agricultural technologies and research—through stronger support for the Consultative Group on International Agricultural Research (CGIAR) and for national agricultural research systems (NARS), for example
- Focusing on the vital link between environmental sustainability and increased food production
- Expanding the participation of the poor in development through increased access to credit, land, and services.

The Bank, working with our partners, is deeply engaged in supporting these efforts. But much more needs to be done. The discussions at the Conference on Overcoming Global Hunger held in Washington, D.C. November 30–December 1, 1993 provided a useful platform—and many good ideas—for strengthening collaboration and intensifying action.

*Lewis T. Preston
President, The World Bank*

Preface

Outrage over hunger in the midst of plenty drove U.S. Congressman Tony Hall to a hunger strike in April 1993. This action sparked the World Bank, long committed to the fight against global hunger, to join forces with Hall and to organize the Conference on Overcoming Global Hunger, which took place in Washington, D.C., November 30 to December 1, 1993.¹ The conference was organized in close collaboration with a number of nongovernmental organizations (NGOs), including Bread for the World, InterAction, Results, and World Vision. Its participants included Hall, President Ketumile Masire of Botswana, United Nations Secretary General Boutros Boutros-Ghali, former U.S. President Jimmy Carter, and World Bank President Lewis T. Preston. The conference's objective was to raise awareness about the problems of hunger associated with extreme poverty as opposed to hunger caused by natural disasters such as drought. For the Bank, the conference was intended to review and reinforce the array of tools the Bank deploys in the fight against hunger.

The conference and subsequent activities have greatly enhanced cooperation between NGOs and the Bank. Attended by more than 1,200 participants, the conference yielded three

important outcomes. First was a reaffirmation by the Bank of its commitment to fight global hunger, expressed in the present document. The second outcome was an in-depth exploration of the possibility of the Bank's joining forces with other donors to create a new Consultative Group to Assist the Poorest of the Poor (CGAPP), funded with \$100 million to promote the replication and growth of NGO-managed programs that provide financial services for the poor. Third, multilateral consultations have begun among national governments, NGOs, bilateral and international agencies, and the World Bank on country-specific programs to combat poverty and hunger, starting with Mali, Nicaragua, and the Philippines.

This report is the result of discussions within the Bank as well as dialogues with NGOs and other international agencies concerned with poverty and hunger. It was prepared by Hans Binswanger and Pierre Landell-Mills with inputs from many colleagues. The report summarizes Bank policy on these issues and details a coordinated program of actions that the Bank, in collaboration with other organizations, will promote in the next few years. This program will be evaluated periodically and refined based on new knowledge and further consultations inside and outside the Bank.

These actions stem from a profound commitment to ending the continued presence of hunger in our midst. In the nineteenth century some people declared that slavery was unconscionable and unacceptable, that it degraded the free as well as the slaves, and that it must be abolished. They were called abolitionists. Today hunger associated with extreme poverty in a world that

has the means to feed its people is unconscionable and unacceptable. We must become the new abolitionists.

Ismail Serageldin
Vice President, The World Bank
Chairman, Conference on Overcoming Global Hunger

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Abbreviations

CBO	community-based organization
CGIAR	Consultative Group on International Agricultural Research
FAO	Food and Agriculture Organization of the United Nations
FINCA	Foundation for International Community Assistance
IFAD	International Fund for Agricultural Development
IMF	International Monetary Fund
NGO	nongovernmental organization
T&V	training and visit
UN	United Nations
UNDHA	United Nations Department of Humanitarian Affairs
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
WFP	World Food Programme
WHO	World Health Organization

Notes on Sources

This report draws heavily on World Bank publications, including *Poverty and Hunger: Issues and Options for Food Security in Developing Countries* (Washington, D.C., 1986); *World Development Report 1990: Poverty* (New York: Oxford University Press, 1990); *Poverty Reduction Handbook* (Washington D.C., 1992); *World Development Report 1993: Investing in Health*

(New York: Oxford University Press, 1993); *Investing in Nutrition: With World Bank Assistance* (Washington, D.C., 1992); and *Adjustment in Africa: Reform, Results, and the Road Ahead* (Washington, D.C., 1994). Boxes without attribution were written for this report by the authors listed in the Acknowledgments.

Executive Summary

Hunger is the most deplorable manifestation of poverty.² It can take three forms, all of which are considered in this report:

- *Starvation*, a life-threatening condition caused by insufficient food often associated with famines
- *Chronic undernutrition*, due to a persistent lack of calories and protein
- *Specific nutrient deficiencies*, from inadequate protein and micronutrient intake, often combined with infections and inadequate nutritional knowledge.

A staggering 750 million men, women, and children go hungry every day. This need not happen. For those of the poor who are unable to produce their own food, avoiding hunger depends primarily on income to buy food: selling cash crops or obtaining other cash income or income transfers. Evidence indicates that broad-based, sustainable economic growth is the best strategy for reducing poverty and hunger.

For these reasons, the World Bank strives to relieve hunger by promoting sustainable agriculture and seeking other ways to assist poor people increase their incomes. Given its mandate, the Bank is well-suited to support medium- and long-range projects to alleviate hunger, leaving famine relief to better-equipped international organizations such as the United Nations Department of Humanitarian Affairs (UNDHA), the World Food Programme (WFP), and the Red Cross.

While research has shown that broad-based growth is the most important factor in reducing poverty and hunger, many cost-effective targeted interventions can substantially accelerate the reduction of poverty and hunger and should be implemented along with broad-based growth policies. Country-specific conditions and the special characteristics of the subgroups of the poor determine the most appropriate interventions.

Despite the efforts of many international organizations, nongovernmental organizations (NGOs), and donor and recipient countries, hunger persists. Recognizing this problem, the World Bank, in collaboration with NGOs, held a Conference on Overcoming Global Hunger in Washington, D.C. on November 30–December 1, 1993. The goals of the conference were building on past initiatives, moving from rhetoric to actions to reduce global hunger, determining how the Bank can better support such actions, and raising public awareness about the seriousness of global hunger. Drawing on the conference deliberations, this report states the Bank's actions and plans to help countries overcome hunger. The Bank recognizes that it cannot carry out these actions alone. Defeating hunger requires the active participation and collaboration of national governments, international organizations, bilateral agencies, NGOs, community-based organizations (CBOs) and the empowerment of the poor.

Broad-Based Growth

Hunger reduction is an integral part of a two-pronged approach to sustainable poverty reduction consisting of broad-based economic growth across income groups and improved access to education, health care, and other social services. The two elements are mutually supporting; one without the other is insufficient. As the NGOs emphasized in their submission after the conference, "...it is equitable *patterns* of growth which are essential to ending poverty and hunger."

Broad-based growth can generate sustainable income opportunities for the poor. It can enable the poor to become more productive, and thereby help eliminate hunger. Caloric intake increases with income and reduces the number of underweight children. Broad-based growth relies on using the poor and hungry's most abundant resource—labor. Countries that have succeeded in reducing hunger have sustained rural development and emphasized urban employment. This has increased livelihood security, reducing morbidity and mortality in the process.

Policies to achieve broad-based growth and develop human resources include eliminating antiemployment biases in trade policies, market regulations, the tax structure, labor laws, and financial sector policies. They focus government expenditures on basic education, health care, and other social services for boys *and* girls, and on growth-enhancing public investments and programs. They promote investment in safe drinking water and sanitation. They provide education, credit, productive resources, and employment opportunities to women, who play an especially important role in reducing hunger. They ensure sustainable resource use through cost-effective environmental policies and programs, and avoid the despoliation of natural resources.

In many countries the largest number of the poor and hungry live in rural areas, and even in other countries hunger is often more pronounced in rural areas than in cities. Often the explanation lies in persistent urban bias. Agricultural sectors have been taxed by a combination of overvalued exchange rates, industrial protection policies, and sometimes export taxes. Policies and programs to offset this taxation have not been able to compensate the rural areas. In addition, many of the programs intended to compensate farmers,

such as subsidized credit or parastatal marketing, have favored the better-off. The Bank's poverty reduction strategy therefore advocates eliminating exchange rate and trade policies that result in urban bias. Liberalizing agricultural trade, especially trade in food, is often controversial, and many NGOs believe that smallholder production of food should be protected.

Eliminating urban bias also involves redirecting public expenditures in rural areas toward primary education and health care and focusing agricultural support toward the smallholder sector. Government farm credit, for example, should be targeted to small-scale farmers and to the poor who would be left out if credit was left entirely to the private sector. Such support can enhance the competitiveness of small farmers and increase the demand for labor, indirectly helping agricultural workers. Efforts to reduce urban bias in public expenditures have been less successful than reducing the bias in exchange rate and trade policies, even in some of the strong adjusting countries.

If developing nations were to grow at the rate East Asia did in the mid-1980s, 500 million fewer people would be poor in 2000 than currently projected. Even then, there would still be hundreds of millions of hungry people. Cost-effective actions targeted to improve the health, nutrition, and income-earning capacity of the poor are necessary to reduce this suffering, while simultaneously pursuing broad-based growth and human resource development.

Poverty assessments are the major analytical tool for adapting the Bank's poverty strategy to specific country conditions. Understanding the relationship between hunger and other economic factors in a country requires a thorough treatment of hunger in the Bank's country poverty assessments. The accuracy and depth of poverty assessments can be improved with NGO and CBO participation.

Poverty and Hunger during Structural Adjustment

Many countries have been hit by external shocks and have postponed adjustment to lower external earnings. Others have veered off the road to broad-based growth by creating unsound economic structures and neglecting human resource development. Symptoms of inappropriate poli-

cies include unsustainable government expenditures and balance of payment deficits. Other symptoms include large social spending imbalances in favor of the middle and upper classes and urban biases in exchange rate and trade policies and in the allocation of public expenditures. These countries must undergo structural adjustment to return to broadly shared growth and poverty reduction. Delay is particularly costly for the poor, who are hit hardest by economic decline. Structural adjustment uses a country's resources more efficiently, including the labor of the poor and the agricultural and human resources of rural areas. The process is often painfully sluggish and full of political conflicts.

Structural adjustment provides many opportunities to reform policies and programs so that they enhance the income and livelihood security of the poor. Examples include focusing agricultural extension on household food security of small and marginal farmers (especially women), reorienting health systems to primary care, and ensuring that the ultra-poor have access to these services. The capacity of countries to respond to international food price increases and weather shocks, and to monitor the nutritional status of the poor, can also improve during reform.

Structural adjustment often has immediate positive impacts on rural incomes. But it also may be associated with a transitional recession and lay-offs brought about by reductions in government spending and the elimination of protection of inefficient industries. These effects hurt certain vulnerable groups unless actions are taken to mitigate the impact on these groups.

The data for Africa, Latin America, and Asia indicate no major change in the share of social spending during adjustment. But the data suggest little progress in the reallocation of social spending from the better-off to the poor. Reforming public sector spending to protect the hungry and poor and to improve their social and economic development remains a major unfinished task, even where other components of structural adjustment have already been implemented.

Evaluating the impact of structural adjustment on incomes, food production, and food consumption of the poor is difficult. If food prices rise as a consequence of adjustment, the urban poor lose. In the rural areas the net buyers of food lose, at least in the short run, while the rural poor

who are able to sell some of their food production gain. Any change in producer prices of food, whether up or down, therefore has an immediate adverse impact on some of the rural poor.

In the longer run increases in food prices may not affect net rural buyers adversely if structural adjustment also leads to increases in the demand for their labor and in higher rural wage rates. Such wage increases are often delayed, leading to sequencing and safety net issues. Evaluating the impact of structural adjustment on the poor must look at the joint net impact of structural adjustment on food production, labor demand, food prices, and wage rates of different subgroups among the poor.

Structural adjustment usually leads to increases in the price of tradable agricultural commodities. The question becomes whether the poor can participate in the production and income gains that become available in export sectors. The worry is that women engaged in non-tradable food production will not benefit, and that smallholders in general may not be able to respond to the new opportunities. Even worse, these vulnerable groups may be squeezed out by more powerful producers who become interested in the production of profitable exportables. Policymakers need to focus on supporting smallholder development and preventing anticompetitive behavior in output markets and distortions in the input and land markets, which constrain the poor's participation in adjustment gains.

Opening of the trade regime sometimes reduces the price of domestically produced goods, either because they were heavily protected prior to adjustment, or because it takes time for private markets to emerge after the withdrawal of a parastatal. Sometimes producer prices have fallen because international prices fell just when a country was trying to liberalize international and domestic agricultural trade. In several African and Latin American countries all three factors have recently coincided, limiting rural gains from structural adjustment and imposing losses on some producers. If these difficulties are transitory it becomes appropriate to temporarily restrain imports and help poor producers over the transitory difficulties in marketing and storing their crops.

If a country has little comparative advantage in a specific food crop, the benefits of importing

the food for poor buyers may outweigh the losses of the poor engaged in its production. This is one of the reasons why free trade in food is so controversial. Special assistance to help the poor engaged in the production diversify or find non-agricultural livelihoods is then needed.

Specific targeted measures can counter the adverse effects vulnerable groups suffer in the short- to medium-run. Protecting or increasing public expenditures that benefit the health and nutrition of the poor is especially important. Where food prices are likely to rise, safety net actions such as social funds and other employment-oriented programs must be accelerated. A cautious goal is ensuring that the most vulnerable do not suffer a further decline in their welfare. A more ambitious objective is creating conditions that will start them on the road to more secure livelihoods. Careful analysis is required to identify the vulnerable groups most likely to lose at the beginning of adjustment, to strengthen existing safeguards, and to implement new protections where existing programs are inadequate. CBOs and NGOs often can help identify the likely victims and help implement the safety net and targeted development measures.

Participation and Decentralization

Development programs are far more likely to succeed when governments, communities, and individuals are active partners in the conception, design, and implementation of the programs. Participation makes development more client-oriented, building local ownership of programs. This promise has too often been neglected.

Beneficiary assessment is a highly useful tool for collecting information on the sociocultural, demographic, and gender dimensions of a program. Assessing the beneficiaries or a program strengthens program design and monitors progress. It is only one step from a top-down approach to one that fully involves the various stakeholders. Consultation is necessary but insufficient by itself.

Decentralization of decisionmaking and resources is another key ingredient in creating local ownership of poverty and hunger reduction programs. The intended beneficiaries must play a part in the decisionmaking process through local assemblies and CBOs and NGOs. Only in

this way can local communities take control of their lives and program outcomes. Greater responsibility must be accompanied by greater accountability through reformed local government. This is essential to reducing the risk that local elites will appropriate resources placed in their stewardship to the detriment of the vulnerable members of the community.

Specific Interventions

While accelerating and broadening economic growth is the best way to reduce hunger, specific targeted interventions can greatly accelerate hunger reduction and the associated suffering and mortality. Cost-effective targeted interventions can reduce hunger directly or indirectly by increasing incomes of the poor. The specific mix of actions depends on the circumstances of each country and on the special characteristics of the diverse subgroups of the poor. The characteristics of the poor and hungry must therefore be analyzed in each country's poverty profile and resulting poverty strategy. The interventions described below come from best practices distilled from worldwide experience. They are not exhaustive, but have been successful in many cases. The actions are ordered roughly by the immediacy of their effectiveness in reducing hunger, and by the cost and complexity of their implementation. Priority setting cannot be done globally. It must be tailored to local or country conditions. It is often unnecessary for governments to execute these programs. They can be implemented by CBOs, NGOs, or the private sector. But they all require partial, if not full, government financing.

Many of these interventions also will improve efficiency and productivity at all levels—individual, regional, and national. These productivity-enhancing actions are not usually done by the market; on the contrary, they usually reflect market or government policy failure. For example, the poor may not be able to buy land in the market because of a lack of savings, nonexistent mortgage banking, or distorted land policies and prices. Mass immunization and deworming are public goods whose benefits cannot be fully captured by the private sector.

When the primary objective is wealth redistribution or poverty and hunger reduction, the

choice of intervention must attempt to transfer resources to the poor in the most cost-effective way. For example, general food price subsidies typically transfer food resources to the poor at a high cost. Targeted nutritional monitoring and feeding programs may achieve the same goal much more cheaply. Relative cost-effectiveness is thus a key factor in choosing how best to intervene on behalf of the poor.

Urgent Low-Cost Actions

The worldwide oral rehydration therapy campaign led by United Nations Children's Fund (UNICEF) has saved millions of children who would otherwise have died from dehydration caused by diarrhea. It was agreed at the 1990 World Summit for Children that priority should be given to a number of other simple, low-cost actions. This conclusion has since been reaffirmed repeatedly. These programs can be implemented through community-led delivery and would usually include nutrition education aimed at behavioral change.

The measures include treatment of intestinal parasites, immunizing against measles and other childhood diseases, and providing vitamin A, iodine, and iron supplements. These programs are affordable and easily implemented in even the poorest countries with assistance from international organizations such as UNICEF and the World Health Organization (WHO). A large body of evidence indicates that diseases, parasites, and other health problems can suppress appetites and rob the hungry of nutrients. The world's hungry should no longer have to wait for these simple, low-cost measures to be taken.

Food Supplementation

Many countries already have schemes in place to subsidize food consumption and nutrition. These programs have benefited many people. However, some methods of providing the hungry with food are more effective and less costly than others. Shifting budget resources to more effective food subsidy and nutrition programs can often drastically reduce hunger at constant or even reduced cost. The most effective targeting mechanism is nutrition monitoring in health posts, schools, and other social programs. This should be combined

with nutrition and health education to change behavior. Programs in Chile, Honduras, and Mexico show that health clinics are the most effective vehicle for targeting food to malnourished children and their families. Health clinics are well-placed to take a holistic approach to hunger, providing medical treatment, immunization, health and nutrition education, and food supplementation. Clinics can monitor hungry children and their parents and provide food to other family members, who are also likely to be hungry.

On-site feeding is most appropriate when the specific vulnerable child or mother is the target. Rather than physically distributing take-home food rations, food entitlements should be provided through on-site feeding, food stamps, or free ration cards. Whenever possible, food entitlements should cover the food deficits of the entire family, not just the affected child or mother. The use of coupons and ration cards avoids the costs and complexities of physically handling food.

Food Aid

Food aid is an important resource which, properly channeled, distributed, or sold, will not undermine domestic food production. Making sure that food from an international organization or a donor country effectively benefits those who need it is a major concern. Transporting donated food long distances in a country is wasteful and costly. Monetizing food aid and using the money to assist the hungry wherever they are is more efficient. The proceeds can finance employment generation or targeted food supplementation.

Famines

Famines, as opposed to chronic undernutrition, are specific, time-bound events. They often occur without a decline in food availability at the national level. Moreover, sharp declines in food availability do not always result in famine. The poor suffer most in famines. Effective action requires understanding the way markets and governments work in a crisis, and the capacity of people to protect themselves. Alleviating famines requires early warning mechanisms, food supply management, food supplementation, employ-

ment generation, and agricultural assistance. Properly implemented, these strategies can be highly effective.

The main actors in famine relief are the UNHCR, the WHO, the Food and Agricultural Organization (FAO), and UNICEF, along with many CBOs and NGOs. The International Monetary Fund (IMF) has a special facility to finance food imports. The World Bank's role is assisting countries in overcoming poverty and the institutional weaknesses that are most often the root cause of famine. For this, the Bank should coordinate closely with United Nations (UN) disaster relief, show flexibility in lending for the foreign exchange requirements of food emergencies, and help countries recover from such crises and return to normal development.

Famine from desertification and drought develops slowly. It can be greatly mitigated by advance warning and prompt countermeasures. Governments can stabilize prices and food supplies by building up food reserves or the financial reserves for the purchase of food imports. Drought-prone countries can strengthen their capacity to mitigate drought. The Bank is integrating the impact of drought into country assistance strategies and project design.

Another major source of vulnerability is volatile international food prices, such as the world food crises of the early 1970s. The Bank, in conjunction with the IMF Food Facility, the WFP, and others, can help countries design cost-effective strategies and financing arrangements for such emergencies.

Income Generation Programs

Specific targeted interventions to improve the incomes of the poor and hungry can powerfully complement broad-based growth policies. Primary education, especially for women, not only reduces fertility and improves child welfare and nutrition, it also greatly enhances the income-earning capacity of the poor.

Informal sector employment reduces poverty directly and provides safety nets in times of economic crisis. Cities should encourage the growth of the informal sector. Hawkers, microenterprises, artisans, and the like not only generate significant income, they also are efficient channels of marketing, distribution, and waste recycling.

Such growth requires a crime-free environment, improved land rights for men *and* women, and reduced regulation.

Providing the poor with access to credit has been difficult. The Bank has had little success in developing and funding credit for the very poor. Done successfully, credit helps the poor participate in economic growth. The Grameen Bank of Bangladesh is an example of a highly successful program that has helped increase the incomes, and consequently the calorie intake, of the rural poor. It lends primarily to poor women, with excellent credit recovery. This approach is now being extended to other developing nations. The Bank has allocated \$2 million to the Grameen Trust to assist similar programs in other countries. In addition, the Bank is exploring mechanisms to promote other promising nongovernment programs to assist the very poor.

The Foundation for International Community Assistance (FINCA) has helped establish a network of more than 1,800 village banks in Latin America and Africa which provide small loans to self-employed borrowers, many of whom are women. In Bolivia, Thailand, and West Africa, the Freedom from Hunger organizations are pioneering credit with education, again using village banking. In Pakistan the Aga Khan Rural Support Program also combines credit with training to reach women in the poorest villages. In Indonesia the International Fund for Agricultural Development (IFAD) funds a rural credit program to assist poor farmers and landless workers in 2,000 villages, based on self-management principles.

Group-based lending for microenterprises is most appropriate where there is high population density, landlessness, and a thriving urban or rural nonfarm economy. In some countries it is being tested in urban settings. Such credit, however, is not necessarily a powerful or cost-effective tool to assist the very poor in sparsely populated and poor agroclimatic zones, such as the semi-arid tropics.

Where soil, water, and other conditions are poor and growth is slow, special programs can improve the management and income-generating potential of natural resources in a cost-effective and sustainable manner. Such programs should usually be community based. Where this does not create sufficient income, governments must establish policies that help the

hungry migrate to cities. Where migration is insufficient or unfeasible, men's and women's incomes need to be supported by special employment schemes. Successful examples are the Maharashtra Employment Guarantee program in India and employment programs in Botswana.

The Bank first assisted land reform in the 1960s, in Kenya. The 1975 *Land Reform* policy paper emphasized the Bank's readiness to support land reform and other land policy options. Until recently, however, few of the 1975 proposals had been implemented. The end of the Cold War and the disappearance of farming collectives and apartheid provide new opportunities to transfer land to the poor.

The Bank encourages land reform where land is concentrated in the hands of a few. Giving the poor secure rights to land allows them to increase their income and access credit, and is an important security factor in emergencies. Moreover, smaller farmers in developing countries are more efficient than larger ones and use more labor. Land rights of women are often especially weak and must be strengthened. In South Africa market approaches to land reform involving CBOs are being encouraged rather than expropriation by land reform agencies.

Agricultural Research

Efforts are needed to improve the technology available to small farmers. The Malthusian nightmare of widespread starvation has so far been postponed by rapid advances in agricultural technology such as the green revolution of the 1960s and 1970s. But hundreds of millions of people continue to go hungry, and the global population continues to expand at an alarming rate. International research must be bolstered to ensure the Malthus prophecies do not come to pass. Intensified support for the CGIAR is required for commodities important in the consumption and sustainable production of the poor. More research at the national level in developing countries can help adapt the findings of international agricultural research to local conditions—especially farming systems of the poor. The Bank will continue emphasizing agricultural extension for small farmers—both men and women—through the training and visit (T&V) system and other approaches. Only through these actions can

small farmers continue to be effective food producers and competitive exporters.

World Bank Actions

Poverty reduction is the cornerstone of the World Bank's mission. This goal encompasses the more specific objective of reducing hunger in its three forms. In addition to raising the incomes of the poor so they can purchase the food they need for an adequate diet, a sound poverty and hunger strategy includes other more specific measures to overcome poor nutrition. The Bank's country poverty assessments provide an integrated framework for country assistance strategies to raise the incomes of the poor and improve nutrition and food security.

The Bank's basic strategy for poverty reduction was set out in *World Development Report 1990*. The Bank's 1992 *Poverty Reduction Handbook* provides detailed guidance for poverty reduction operations to the Bank's country teams. In addition, recent work in Africa has shown how assistance programs can include drought relief and famine avoidance to anticipate and substantially mitigate slow-onset disasters. International experience with strengthening the economic opportunities of the poor is now being widely disseminated and integrated into various sectoral projects. And collaboration with development NGOs and CBOs in poverty projects is expanding.

Recognizing the importance of a participatory approach, the Bank is preparing a participatory sourcebook to provide guidance on participatory approaches. This sourcebook will complement social assessment guidelines, and an intensive effort will be made to train staff in these techniques.

The Conference on Overcoming Global Hunger initiated a valuable dialogue with the NGO community. There is a shared desire to see hunger visibly reduced. The Bank is ready to participate in pilot tripartite in-country consultations to be initiated locally as a forum for exchanging views among government representatives, NGOs, and the Bank on country-specific hunger reduction strategies.

Recent research, *World Development Report 1993*, reviews of structural adjustment efforts and public expenditure patterns, and the discussions

at the conference have identified those actions that are particularly important in reducing hunger, and which should be more systematically included in Bank-supported programs. They will

require dissemination inside and outside the Bank. The specific actions are listed in the table below. Bank actions in support of the program are discussed in the last section of this report.

Actions to Reduce Hunger

Actions to Reduce Hunger: World Bank Support to Member Countries

Other Agencies Active in This Area

PART I: Growth, Poverty, and Hunger

1. ASSISTANCE STRATEGY TO REDUCE POVERTY

The Bank will promote broad-based, employment-intensive growth and improved access of the poor to education, health care, and other social services (as discussed in *World Development Report 1990*). Specifically, the Bank will continue to support measures that:

- Encourage macroeconomic stability and openness of the trade regime.
- Reduce direct and indirect taxation of farm sectors to encourage domestic food production and rural income and employment growth.
- Eliminate antiemployment taxes and credit subsidies.
- Reduce direct and indirect labor taxation and increase cost-effective, labor-intensive infrastructure construction.
- Accelerate redirection of government spending to safe drinking water and sanitation, basic education, basic health care, and other social services for the poor, especially women.

NGOs, IMF, regional development banks

2. PROTECTING THE POOR AND HUNGRY IN STRUCTURAL AND SECTORAL ADJUSTMENT PROGRAMS

- Seize opportunities in program and policy reforms to increase the income-earning potential and livelihood security of the poor.
- Encourage compensatory expenditures for vulnerable groups through safety net actions including social funds and employment-oriented programs, especially where basic food prices are likely to rise.
- Assist in better targeting food subsidies to the poor and vulnerable groups including through such programs as items 4, 5, and 6 in this list.
- Ensure that funding levels for synergistic primary health, nutrition, and targeted food assistance programs remain sufficient to maintain or expand existing levels of coverage.

IMF, regional development banks, NGOs

3. PARTICIPATION AND DECENTRALIZATION IN INVESTMENT LENDING

- Integrate the lessons from the learning groups on participation in the Bank's operations.
- Ensure greater beneficiary participation by decentralizing functions and fiscal resources to local governments and community-based organizations (CBOs)³ and by strengthening accountability of local leaders to ultimate beneficiaries.

NGOs, CBOs

PART II: Specific Actions and Programs

4. SIMPLE, LOW-COST ACTIONS

In follow-up to conclusions of *World Development Report 1993* and the goals of the 1990 World Summit for Children and the 1992 International Conference on Nutrition,⁴ the Bank stands ready to collaborate with UNICEF in assisting borrowing countries to prepare and finance actions for implementing synergistic, low-cost, hunger-reducing health and nutrition interventions to achieve the following actions and goals:

UNICEF, WHO, bilateral donors, NGOs

Actions to Reduce Hunger: World Bank Support to Member Countries	Other Agencies Active in This Area
<ul style="list-style-type: none"> • Reduce vitamin A, iodine, and iron deficiencies through fortification, supplementation, and dietary modification. • Expand childhood immunization coverage from 80 percent to 90 percent. • Implement a low-cost program for control of parasitic infections that cause anemia and malnutrition. <p>These simple low-cost actions would be implemented through community-level delivery with nutrition education for behavioral change.</p>	
<p>5. TARGETED FOOD SUPPLEMENTATION</p> <p>Encourage countries to shift food subsidies to targeted food assistance programs that provide food entitlements to children and their families where children or mothers have been identified as being at risk of becoming malnourished or having low birthweight babies in health posts, schools, or other social programs. Food entitlement may involve on-site feeding, food stamps, or free ration cards rather than take-home food distribution.</p>	UNICEF, CBOs, NGOs
<p>6. MONETIZED FOOD AID</p> <p>Assist borrowing countries and implementing agencies in monetizing food aid and making counterpart funds available to finance the above food supplementation programs and the synergistic interventions provided in these programs for nutrition education, micronutrient supplementation, and health. Monetization should be done without depressing domestic producer incentives.</p>	WFP, bilateral food aid, CBOs, NGOs
<p>7. PROMPT RESPONSE TO DROUGHT AND FAMINES</p> <ul style="list-style-type: none"> • Integrate the impact of drought into the country assistance strategies and project designs of drought-prone countries or regions. • Strengthen the countries' capacity to prepare for and mitigate drought. This will reduce the need for emergency relief and smooth the transition from drought to recovery. • Build on recent experience with Southern African drought relief and coordinate the Bank's lending more closely with the UN's disaster relief operations and subsequent recovery requirements. • Assist countries in designing cost-effective strategies and financing arrangements to stabilize the prices of the most essential staple foods in case of large, temporary, international price shocks, drought, or other calamities. • Improve lending instruments to provide greater flexibility for foreign exchange requirements associated with drought and famines. 	UNDHA, FAO, WFP, UNDP, IMF, CBOs, NGOs
<p>8. INCOME GENERATION PROGRAMS</p> <p>Within the context of country-specific poverty strategies, evaluate and provide support for targeted income generation programs to:</p> <ul style="list-style-type: none"> • Improve access to and quality of preprimary and primary education for disadvantaged groups, especially girls. • Encourage countries to provide crime-free space and improved land rights for men and women, and to remove excessive regulation of informal sector activities. • Within the context of overall financial sector reform, support policies and programs that make financial services available to the poor, particularly women, and address the credit and savings needs of the self-employed poor. • Assist communities in semi-arid areas, mountain zones, and other difficult agroclimate zones in improving their management of key natural resource (pasture, forests, watersheds) as, for example, in the Burkina Faso environmental management project; where income generation potential is poor, help finance employment generation programs along the lines of the largely self-targeting Maharashtra Employment Guarantee Scheme and Botswana employment programs. • Encourage countries with highly unequal land distribution to design market-assisted land reform programs as, for example, is being initiated in South Africa. 	IFAD, CBOs, NGOs
<p>9. AGRICULTURAL RESEARCH AND EXTENSION</p> <p>To ensure long-term food supplies and improve rural incomes:</p> <ul style="list-style-type: none"> • Emphasize small farmer extension, as in T&V and other similar programs. • Strengthen national agricultural research systems, with special emphasis on the commodities and farming systems characteristic of the poor. • Mobilize a continued high level of support for the CGIAR and encourage research on commodities that are particularly important in the consumption and production of the poor, and on policies and programs aimed at raising the purchasing power of the poor. 	IFAD, FAO, CBOs, NGOs, ILO, WFP
<p>10. FOLLOW-UP TO THE CONFERENCE ON OVERCOMING GLOBAL HUNGER</p> <p>Participate in locally organized tripartite pilot in-country consultations in countries where representatives of the government, CBOs, NGOs, and the Bank can explore improvement in specific policies or actions to reduce hunger.</p>	FAD, FAO, UNDP, CGIAR, CBOs, NGOs

Growth, Poverty, and Hunger

The first part of this report focuses on the causes of hunger and on the World Bank's strategy for reducing poverty and hunger by promoting broad-based, employment-intensive growth and by providing basic social services to the poor. It also emphasizes the importance of investing in people and the poor's role in their own development. Part II details specific actions and programs that have proven successful.

Causes of Hunger and Elements of Food Security

Hunger is the most deplorable manifestation of poverty. It can take three forms, all of which are considered in this report:

- *Starvation*, a life-threatening condition caused by insufficient food often associated with famines
- *Chronic undernutrition*, due to a persistent lack of calories and protein
- *Specific nutrient deficiencies*, from inadequate protein and micronutrient intake, often combined with infections and inadequate nutritional knowledge.

All three forms are often considered to be primarily a problem of food supply or availability. Indeed, it is true that food availability in a given area is necessary to avoid famine. Availability can be ensured either by sustainable production, storage, or imports. But adequate food supply is

insufficient to prevent starvation or alleviate malnutrition. Only if poor households have the income to buy food, or the land and water resources to produce it, can they be sure they will not suffer from hunger. This is why recent debates have focused so much on household food security.

As Shlomo Reutlinger stated in 1977, when great attention was focused on food supply:

Malnutrition can be wholly or partly caused by poor quality of nutrition or poor health status of the afflicted population. However, in recent years nutrition scientists have reached some measure of agreement that many millions of people, adults and children in developing countries suffer from malnutrition...because they do not have the means to obtain enough of their accustomed diet (Reutlinger 1977).

Amartya Kuma Sen, in *Poverty and Famines: An Essay on Entitlement and Deprivation*, found that during the Ethiopian famine of 1972–74 there was “no abnormal reduction in food output, and [national] consumption of food per head at the height of the famine in 1973 was fairly normal for Ethiopia as a whole” (Sen 1981). But 50,000 to 200,000 people died. Most were nomadic and seminomadic herders who saw their incomes

plummet when livestock prices fell and they could not afford to buy food.

These findings startled some in the development community and have yet to penetrate the consciousness of many outside it. Even within the development community, some groups continue to remain primarily concerned with providing in-kind food aid, improving production, and otherwise trying to assure that food is available to poor people in developing countries.

Development organizations used findings from Reutlinger, Sen, and others to create a new framework for reducing hunger. This framework, articulated in a 1986 World Bank policy study, *Poverty and Hunger*, established these key principles of food security:

- *Food security is access by all people at all times to enough food for an active and healthy life.* Food insecurity, by contrast, is lack of access to enough food. Countries with widespread undernutrition have a national food security problem.
- *Food security requires meeting two conditions.* One is ensuring that there are adequate food supplies available through domestic production or imports. The other is ensuring households whose members suffer from malnutrition can acquire food, either because they produce it themselves or because they have the income to acquire it.
- *Food insecurity is either chronic or transitory.* Chronic food insecurity involves a continuously inadequate diet caused by the persistent inability to acquire food by any means—producing, buying, bartering, sharing, foraging, and so on. Transitory food insecurity is a temporary decline in a household's access to enough food, arising from instability of food prices, food production, or household incomes.
- *Policies for reducing chronic food insecurity differ from those for reducing transitory food insecurity.* Policy options for reducing chronic food insecurity include increasing the food supply (through domestic production, imports, or improving market integration), targeting development assistance or income transfers to the poor, and helping the poor obtain knowledge about nutrition and health practices. Policy options for reducing transitory food insecurity may include stabilizing supplies

and prices and assisting vulnerable groups with emergency employment programs, income transfers, or food.

- *Within countries the food-insecure poor comprise different subgroups.* These subgroups are differentiated by location, occupational patterns, asset ownership, race, ethnicity, age, and gender. Cost-effective programs to improve food security must be tailored to the needs and circumstances of each group (World Bank 1986).

Food security does not involve whether food is imported or not, merely whether it can be accessed. Of course, producing your own food provides both domestic availability and purchasing power. In inaccessible, remote areas, and for subsistence farmers, food availability and access are essentially the same. Elsewhere, food security can also be met by purchases and imports, especially where domestic agricultural endowments are poor and can produce food only at a high cost. Older schools of thought emphasized domestic production and self-sufficiency based on the assumption that imports are unreliable and importing countries could easily be blackmailed by withholding of food exports. Such fears were clearly exaggerated. Even during the worst food crises, as in the early 1970s, there have always been alternative suppliers, even to unpopular governments. No studies indicate hunger resulted from import suspension. If a country needs to import and has insufficient foreign exchange reserves to do so, the International Monetary Fund (IMF) maintains a special lending facility to help countries buy food, the IMF Food Facility. The facility's infrequent use since its creation in the 1970s is a reflection of the low food prices that have prevailed for the past two decades, not a lack of potential usefulness.

The Bank's policy framework on poverty and hunger, reiterated in *World Development Report 1990*, emphasizes broad-based, employment-intensive growth and human resource development as the best way to reduce poverty and hunger (World Bank 1990). The validity of this strategy is continually reaffirmed. Bank country studies consistently demonstrate that increasing income reduces hunger more than any other action. Direct special measures, such as bolstering health care and targeted feeding for children and nursing mothers, are also usually necessary to reduce malnutrition.

Nutritional status is strongly affected by behavior, such as breast feeding, sanitation habits, or the use of local vegetables. Consequently, health and nutrition education must be an integral part of the strategy to reduce malnutrition and specific micronutrient deficiencies.

The importance of the direct interventions has been further strengthened over the past few years by:

- New research showing that the consequences of malnutrition are far more negative than previously assumed.
- Evidence that micronutrient deficiencies, infectious diseases, intestinal parasites, and environmental factors often contribute to malnutrition as much as calorie deficiencies.
- Recognition that economic growth alone is insufficient to eliminate hunger. Economic growth would require more than a generation for most countries to achieve significant progress for the lowest income groups. Within the overall growth-based poverty strategy, more direct steps are needed to accelerate hunger reduction.
- Increasing incomes also are insufficient, even among low-income groups. Health and nutrition education improves behavior and nutritional status.
- Greater awareness that governments and donors, including the Bank, need to consider the consequences of adjustment operations on food consumption and nutrition and encourage compensation for the needy.

World Bank's Strategy to Reduce Poverty and Hunger

The Bank's poverty reduction strategy has two important elements. The first is promoting broad-based, employment-intensive growth. This calls for policies that harness market incentives and build infrastructure, technology, social, and political institutions. The second element is providing basic social services to the poor. Access of the poor to clean drinking water, primary education, primary health care, family planning, food, and nutrition are especially important.

The two elements are mutually reinforcing. In some countries, such as Brazil and Pakistan, growth has raised the incomes of the poor, but social services have received too little attention.

As a result child mortality remains unusually high and primary enrollment unusually low. The poor should be better-equipped to take advantage of economic opportunities. Some other countries, by contrast, have long stressed social services, but growth has been too low. In Cuba and Sri Lanka, for example, primary enrollment rates and under-5 mortality rates are exceptionally good, but the potential for raising the incomes of the poor has been wasted for lack of economic opportunity.

Progress has been greatest in countries that implemented both parts of the strategy. By promoting the productive use of labor, these countries have furnished opportunities for the poor and, by investing in health, nutrition, and education, they have enabled the poor to take full advantage of the new possibilities.

Policies to achieve broad-based growth and human resource development reduce or eliminate antiemployment biases in trade policy, market regulation, the tax regime, labor laws, and financial sector policies. They focus government expenditures on basic education and health care and other basic social services, and on growth-enhancing public investments and programs. They finance cost-effective infrastructure using labor-intensive techniques. They provide resources, credit, and employment opportunities to women—who play an especially important role in any hunger reduction strategy. And they ensure sustainable resource use through cost-effective environmental policies and programs.

Broad-based growth best helps the poor because it relies on productively using their most abundant resource—labor. In virtually every developing country, poor people depend on income from work on their own land, from wages, or from other self-employment. Countries that have succeeded in reducing poverty over the long term have encouraged broad-based rural development and urban employment, thereby increasing the returns to small farm production and wage labor. With increased incomes, the poor can afford more food, reducing hunger in the process. Improved nutrition and lower morbidity and mortality follow.

The importance of growth in reducing poverty and hunger cannot be overstated. In the 1980s the child mortality rate fell more than twice as much in countries where average incomes rose

by more than one percent a year than in countries where average incomes fell.

Human resource development improves the education, health, and earnings capacity of the poor. Moreover, better education of parents, especially women, reduces fertility and directly improves child nutrition and health. Improved nutrition, especially among pregnant and lactating women and the very young, not only improves survival chances and quality of life, but also increases cognitive test scores, school performance and, ultimately, productivity and income.

Many of the poor live in rural areas, where hunger is often most pronounced. A major reason for their poverty has been persistent urban bias in policies and development expenditures. Agricultural taxation by developing country governments during 1960–80 was often enormous (Shiff and Valdes 1992). The greatest negative impact on agriculture was from the indirect effects of overvalued exchange rates and industrial protection policies, not from direct agricultural policies such as export taxes. The direct policies often provided some protection, especially to food crops such as wheat in Guatemala or Nigeria, and other crops with limited comparative advantage. Still, these protections and direct credit and infrastructure support could not compensate for what was taken out of rural areas by export taxes, exchange rate overvaluation, and industrial sector protection.

Direct support through credit and marketing programs only reaches the poor in the few countries that also tax agriculture less. In most places these programs instead support the better-off commercial farmers. Social sector expenditures—primary health care, primary education—are also usually biased against rural areas. The Bank's poverty reduction strategy advocates eliminating trade rate and exchange policies that result in urban bias.

Structural adjustment during the 1980s and early 1990s has reformed the exchange rate regime and trade policies in many countries, especially in Latin America. But taxation of agriculture is still severe in many other countries, especially in Africa. This part of structural adjustment is often highly controversial. Opening trade for agricultural foods favors agricultural exports where many developing countries have comparative advantage. Many nongovernmental organi-

zations (NGOs) think this is a mistake, as will be discussed below.

The Bank also advocates redirecting government support toward agricultural smallholders and eliminating credit and other subsidies to large, commercial farms. Government finance for credit programs should focus on the small-scale sector and the poor. Redirecting support will enhance the competitiveness of small farmers and increase the demand for labor, indirectly helping agricultural workers. Reducing urban bias in public expenditures has been less successful than reducing the bias in exchange rate and trade policies, even in some of the strong adjusting countries such as Mexico.

The Bank has always favored land reform to promote more efficient small-scale farming. This policy was spelled out in the 1975 *Land Reform* policy paper, which recognized the political difficulties associated with land reform (World Bank 1975). The Bank was rarely able to translate its favorable view of land reform into support of a country-led reform program. The demise of the Cold War, democratization, and developments such as the end of apartheid in South Africa are opening new opportunities.

A recent report by the UN's (United Nations) Administrative Committee on Coordination's Subcommittee on Nutrition clearly demonstrates that countries experiencing broad-based growth enjoy sharply declining rates of underweight children (figure 1). Indonesia and Malaysia, both successful in reducing the number of underweight children, needed to adjust because of the fall in oil prices and other commodities, which were major sources of foreign exchange. They adjusted their fiscal policies, depreciated their currencies, liberalized their trade regimes, and deregulated their industries. These policies raised the relative price of agricultural goods, helping farmers who make up the bulk of the poor in both countries. The incidence of poverty in Indonesia dropped from 28 percent in 1984 to about 16 percent in 1987.

Strong support was expressed at the Conference on Overcoming Global Hunger for promoting employment-intensive growth as the most viable approach to reducing poverty in the medium and long run. Within this framework, the Bank will continue to support measures aimed at:

- Macroeconomic stability, liberalized markets, and open trade
- Reducing direct and indirect taxation of farm sectors to encourage domestic food production, rural income, and employment growth
- Eliminating taxes and subsidies that discourage employment
- Reducing direct and indirect labor taxation and increasing cost-effective, labor-intensive infrastructure construction
- Redirecting government spending to safe drinking water and sanitation, basic education, basic health care, nutrition, and other social services for the poor, especially women and children.

A poverty assessment is the Bank's principal instrument for providing a factual and analytical basis for a country poverty strategy. Although the focus, topic selection, and phasing of work for the poverty assessment depend on country circumstances, it normally covers the following:

- *Poverty profile.* The profile provides data about the extent and nature of poverty and identifies relevant subgroups of the poor by their distinguishing characteristics. These characteristics include age, gender, location, occupation, education, asset ownership, ethnic origin or race, family structure and dependency ratios, and so on. The profile is used to identify poverty trends and guide policy analysis. It is

also required to define appropriate programs for the different subgroups.

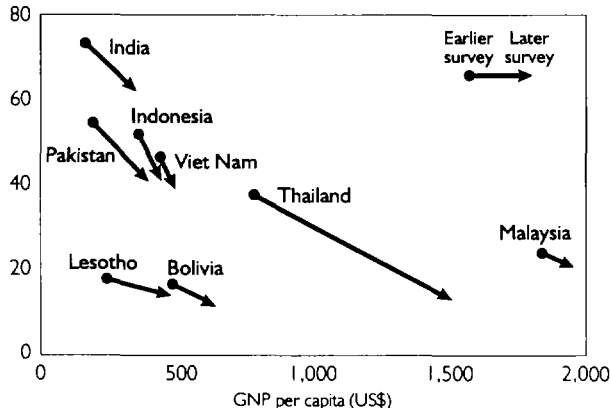
- *Incentives and regulations.* The review of country policies is intended to identify biases that limit the efficient use of assets owned by the poor or constrain the poor from acquiring human capital, land, or credit. Policies examined include those affecting the patterns of growth and labor demand, the incentive framework governing relative prices, the regulatory framework, and short-term macroeconomic management. Policies affecting the poor's accumulation of assets—human capital, land—and interactions with the environment also should be considered.
- *Public expenditures and institutions.* A public expenditure review determines whether the composition and structure of expenditures—and service delivery—support macroeconomic and sectoral policies efficiently and cost-effectively. From the poverty perspective, the objective is to identify possible reallocations of resources—within and across sectors—that will expand the access of the poor to physical and social infrastructure and targeted programs.
- *Safety net.* An analysis of the extent and nature of poverty and the extent of the poor's vulnerability to natural or economic changes should identify the type of safety net needed—and its scope. This analysis should be combined with an assessment of the extent, effectiveness, and affordability of existing safety nets, and of the existing institutional capacity to implement any recommended changes.

- *Country poverty strategy.* Based on the above analyses, the strategy should lay out priority government actions for reducing poverty. Objectives, institutional arrangements, and a timetable should be specified. The strategy should take the country's implementation capacity and any political constraints into account. The strategy should specify options and recommend choices when tradeoffs between objectives are identified—as between poverty reduction and economic growth or protection of the environment.

Box 1 provides a poverty assessment check list. An evaluation of the poverty assessment published in the *Poverty Reduction Handbook*

Figure 1. Changes in GNP and prevalence of underweight children from late 1970s to early-late 1980s

Percentage of underweight preschool children (below -2 standard deviations weight for age)



Note: Data given for the following survey years: Bolivia, 1981, 1989; India, 1975–79, 1988–90; Indonesia, 1980, 1987; Lesotho, 1976, 1981; Malaysia, 1983, 1986; Pakistan, 1977, 1990; Thailand, 1982, 1990; and Viet Nam, 1986, 1989.

Source: United Nations, *Second Report on the World Nutrition Situation*, vol. II, 1993.

(World Bank 1992a) and in the poverty progress report (World Bank 1993b) suggests that current attention to hunger is insufficient.

Even if the strategies resulting from poverty assessments are implemented successfully, there will still be more than 550 million people living on less than \$0.75 a day (1993 prices) in 2000, most of them hungry (box 2). Moreover, the world's poor, sick, old, and those who live in resource-poor regions will find it difficult to participate in growth. They will continue to experience severe deprivation. Many others will suffer temporary setbacks from seasonal variations in income, loss of the family breadwinner, famine, or adverse macroeconomic shocks. As conference participants discussed, a comprehensive approach to hunger reduction goes beyond broad-based

growth, requiring specific well-targeted and cost-effective interventions to sharply accelerate hunger reduction. Several are cheap, simple, direct interventions known to save and improve lives. These are discussed in part II of this report.

Poverty and Hunger during Structural Adjustment

A key issue raised at the conference was the impact of structural adjustment on hunger. Many countries have been hit by external shocks and have postponed adjustment to lower external earnings. Others have veered off the road to broad-based growth by creating or sustaining unsound economic structures and urban bias and by neglecting human resource development.

Box 1. Diagnosis checklist for poverty assessments

Growth

- How do macroeconomic and sectoral policies affect the demand for skilled and unskilled labor?
- To what extent do labor market regulations impede labor mobility and absorption?
- To what extent do regulations about land or financial markets discriminate against the poor?
- How do regulations affect the growth of urban employment?
- How do agricultural taxes affect rural employment and incomes?
- How does policy affect the unskilled wage or the prices of

crops produced by the poor?

- How are other intermediate indicators of poverty affected?
- How much access do the poor have to productive assets and infrastructure?

Human capital

- How much access do the poor have to basic social services?
- Is the balance in public social expenditures appropriate?
- How appropriate are the institutions, planning, and delivery capacity? How severe are shortages of skilled labor?

Safety net

- How extensive are existing safety net programs—including traditional and other nongovernmental arrangements?
- Are they cost-effective and well-targeted to the most vulnerable?
- If there is no safety net, are the country's institutions developed enough to implement safety net programs?

Source: *Poverty Reduction Handbook* (World Bank 1992a).

Box 2. Importance of economic growth for reducing hunger and poverty

Research by the Bank has found that if current economic growth trends continue, there will be about 1.3 billion people living in

poverty by 2000. But if the developing world were to grow as fast and reduce poverty as quickly as East Asia during 1985–90, only

about 977 million would be living in poverty by 2000, as indicated in the table below:

Number of poor in developing world under alternative growth patterns

Millions of people living on less than:	1985	1990	2000, if the 1985–90 trend continues	2000, if the developing world had the rate of poverty reduction found in East Asia in 1985–90
\$1/day	1,051	1,133	1,317	977
\$0.75/day	614	644	708	551

Source: *Implementing the World Bank's Strategy to Reduce Poverty* (World Bank 1993b).

Box 3. Adjustment program design checklist

The following questions should be asked in the design of adjustment operations:

- How does the poverty outcome differ under alternative adjustment scenarios?
- How do wages and employment of unskilled workers differ under the scenarios?
- How mobile is labor between the tradable and nontradable sectors?
- How flexible are wages in nominal terms? in real terms?
- Along which path is the demand

for unskilled labor greater?

- How do prices of the products consumed by the poor differ along these paths?
- How much domestic demand contraction is necessary to restore external balance?
- What is the likely distributional impact of the contraction?
- What specific risks under the program bear on the poor?
- Which groups are likely to be adversely affected?
- How can the poorest and most vulnerable groups be protected?

- What are the tradeoffs with fiscal management?
- How adequate is the monitoring system for tracking changes in the welfare of the poor during adjustment?
- What additional investments are warranted to facilitate the poor's participation in the economic growth to be generated by adjustment?

Source: Poverty Reduction Handbook (World Bank 1992a).

These policies are often fiercely defended by entrenched interest groups. Symptoms of inappropriate policies include unsustainable government spending, balance of payment deficits, and large social spending imbalances favoring the middle and upper classes and urban areas. Structural adjustment is the main instrument to restore broad-based growth in countries that have experienced macroeconomic instability, lack of growth, and increased poverty. Structural adjustment programs seek to restructure the productive capacities of a country. In practice, this means using monetary, fiscal, trade, and other macroeconomic policy tools along the lines discussed in the previous section.

Macroeconomic difficulties were triggered in the 1980s as the debt crisis and international recession exposed structural weaknesses. When structural adjustment programs were implemented, little attention was initially paid to their effects on the poor. Macroeconomic issues seemed more pressing. The aim was to achieve a rapid transition to new growth paths. As the decade continued it became clear that macroeconomic recovery and structural change were slow to come in many countries. While structural adjustment often increased rural incomes, evidence of declines in other incomes and cutbacks in social services became evident. Many observers called attention to the situation, but it was the United Nations Children's Fund (UNICEF) that brought the issue onto center stage. As a consequence this aspect is now routinely reviewed in all adjustment programs financed by the Bank. As UNICEF advocated,

attention is focused both on how adjustment policies affect the poor and on specific measures to cushion the short-term pain. The Bank now has a checklist of questions to ask when appraising adjustment operations (box 3).

The starting point for adjustment is macroeconomic disequilibrium. The usual symptoms are an unsustainable current account deficit, internal financial problems, and slow growth. Adjustment has two objectives: reducing the demand for imports and domestic goods to stabilize economic conditions, and restructuring the economy to reach a higher growth path. Since restructuring calls for reducing urban bias and more efficient use of labor, it is fully consistent with broad-based growth shared across income groups, which will reduce poverty over time. Targeting measures will counter the adverse effects specific vulnerable groups suffer in the short to medium run. Protecting or increasing public expenditures on the health and nutrition of the poor is especially important. Where food prices are likely to rise, safety net actions, including social funds and other employment-oriented programs, need to be speeded up. A cautious goal is ensuring that the most vulnerable do not suffer a further decline in their welfare. A more ambitious objective is creating conditions that will start them on the road to more secure livelihoods. Careful analysis is required to identify the vulnerable groups most likely to lose at the beginning of the adjustment effort, to strengthen and further develop existing safeguard mechanisms, and to develop and initiate new protections where existing programs are inadequate. CBOs

and NGOs can often not only help identify the likely victims but also can assist in the implementation of the safety net and targeted development measures.

Country circumstances determine when individual adjustment operations should focus more specifically on poverty reduction—by addressing distortions and regulations that especially disadvantage the poor and by supporting a reorientation of public expenditures toward infrastructure and social services for the poor. Within the overall spending envelope given by the macroeconomic framework, special efforts should be made to safeguard, and increase where appropriate, budgetary allocations for basic health, nutrition, and education. While these measures are subject to administrative and fiscal feasibility, all adjustment operations are expected to provide protection for the most vulnerable.

The short-run effects of adjustment can create difficulties for two reasons. First, the process of economic restructuring is often sluggish and uneven. Because existing distortions and privileges are defended by politically powerful groups, adjustment programs may not be implemented fully and rapidly. Where they are, firms and labor markets take time to adjust, and in the meantime economies can suffer higher unemployment or underemployment and labor incomes may decline. Second, demand-reducing measures may be unavoidable, and these are likely to hurt the consumption of both the poor and the nonpoor. The need for cuts in public spending can lead to a particularly sharp short-run conflict with two essential parts of the strategy advocated in this report—delivery of social services and provision of transfers and safety nets.

Structural adjustment often has immediate positive impacts on rural incomes. Yet it is usually associated with a recession and lay-offs brought about by reductions in government spending and elimination of protection of inefficient industries. Some of the rural and urban poor will suffer unless actions are taken to mitigate or offset the impact of the recession on the vulnerable groups. The poverty profile and short-term indicators of poverty can help in the design of reform programs and systems for monitoring poverty during adjustment. Because the poverty profile indicates who the poor are, where they live, and their economic activities and social con-

dition, it can be used to establish a baseline for monitoring during adjustment. The profile can be used to identify the key indicators that are correlated with the incomes of the poor and that can be measured readily during adjustment. A similar approach can be used to monitor key social indicators and access to public services. Targeted measures are needed to counter the adverse effects that specific vulnerable groups suffer in the short to medium run.

The impact of structural adjustment on the poor remains highly controversial. The Bank has produced several reports on the impact of structural adjustment, the latest of which, *Adjustment in Africa: Reform, Results, and the Road Ahead*, provides a comprehensive evaluation (World Bank 1994). This report reviews only those issues directly related to food production and food consumption and to targeted expenditures for primary education, primary health care, and nutrition programs.

Food Production and Consumption

At the preparatory workshop for the Conference on Overcoming Global Hunger, participants questioned whether adjustment improves food production, food consumption, or household food security. Evaluating the impact of adjustment on incomes, food production, and food consumption of the poor is difficult because of conceptual difficulties and inadequate data. One conceptual difficulty stems from differences in the impact of food price increases on the urban and rural poor. The urban poor lose when food prices rise—at least in the short run. So do those rural poor who do not produce their own food or have surpluses to sell. In Mexico, for example, about half of the rural poor are net sellers of maize, while the other half are net buyers of maize. Any change in maize prices, up or down, has an immediate adverse impact on about half of the rural poor in Mexico.

In the longer run, increases in food prices may not affect net buyers adversely if growth elsewhere in the economy or the elimination of distortions against agriculture increases demand for their labor and increases rural wage rates. Such wage increases are often delayed, leading to sequencing and safety net issues. Ravallion (1990), for example, estimates that it takes about

three years for an increase in the price of rice in Bangladesh to result in a corresponding rise in the wage rate sufficient to offset the impact of the rice price rise on the rural poor. Any evaluation of the impact of structural adjustment on the poor must examine food production, labor demand, food prices, and wage rates of different subgroups among the poor.

Structural adjustment usually increases the price of tradable foods and nonfoods. In rural areas, export production becomes much more profitable relative to domestic production. The concern is whether the rural poor can participate in the newly available production and income gains. A special concern is that women engaged in nontradable food production will not benefit, and that smallholders in general may not be able to respond to the new opportunities. Even worse, these two groups may be squeezed out by more powerful producers who become interested in the production of profitable exportables. Policymakers need to focus on supporting the production efforts of the poor and preventing anticompetitive behavior in output markets and distortions in input and land markets, which reduce the smallholders' ability to participate fully in the new opportunities. Box 4 elaborates on these points.

Opening the trade regime has sometimes reduced the price of domestically produced crops, either because they were heavily protected prior to adjustment or because it takes time for private marketing to emerge after the withdrawal of a parastatal. Sometimes prices have fallen because international prices fell just as a country tried to liberalize agricultural trade. In several Latin American countries all three factors coincided. If these difficulties are transitory, it becomes appropriate to temporarily restrain imports and help poor producers market and store their crops during the transition. Such temporary assistance should be withdrawn when the markets and producers have had time to adjust to the new realities.

Where a country lacks comparative advantage, adjusting to reductions in prices of previously protected commodities is difficult. Many rural areas depend on the sale of a single crop for the domestic market or for export. If wheat prices in the wheat-producing highlands of Guatemala decline, both the net sellers of wheat and the

landless workers engaged in wheat production will lose. The region may have difficulty finding another crop with comparative advantage. Poor bread consumers all over Guatemala, however, will gain from the opening of the wheat trade. For this reason it may be a good thing. This is one of the reasons why free trade in food is so controversial. If the policy is implemented, special programs may be needed to help highly specialized losers find new agricultural enterprises or non-farm livelihoods. In Mexico, for example, the Bank supported just such a strategy to deal with the anticipated decline of maize prices as a consequence of the North American Free Trade Agreement.

Assessing the impact of a specific structural adjustment program on incomes and food production and consumption is a difficult and data-intensive task. One approach is to ask whether the poor are better-off as a result of economic reforms than they would have been in their absence. This approach requires one to construct a counterfactual scenario of how the economy would have evolved in the absence of reforms. A second approach is to ask whether economic reforms have improved the welfare of the poor. This approach compares the welfare of the poor at two points in time and thus requires baseline data at the time prior to the implementation of reforms. A third approach asks how the welfare of the poor under the current set of reforms compares with the welfare of the poor under a more ideal set of reforms. Like the first approach, it requires the construction of a counterfactual.

Each approach requires income data from a national household survey, preferably disaggregated at the individual level. The data should be supplemented with information on food consumption and other welfare measures. Baseline information on the same set of households or information to construct counterfactual scenarios is also needed. Household survey data permitting a longitudinal assessment of the impact of adjustment on poverty are absent in most countries. In the absence of better data, one can only compare benefits to the poor from the preadjustment policies with the likely impact of policy reforms on their incomes.

The impact of structural adjustment has been studied most carefully in Africa. In Africa, the economic crises of the late 1970s and early

1980s caused large declines in per capita income—and certainly hurt the poor. Most African countries fared badly on all fronts in the early 1980s. Growth was stalled or negative. Policies were strongly biased in favor of urban areas and against agriculture, where most of the poor earn their living. Spending and the provision of rationed goods were heavily skewed to the better-off.

Recession in the early to mid-1980s, precipitated by an adverse movement in the terms of trade and government strategies in response to the crisis, worsened things for the poor. In countries with fixed exchange rates, the initial response was to tighten foreign exchange rationing and to defend the official exchange rate. From Ghana to Tanzania, this heightened dualism in markets. Influential people derived greater

Box 4. Does commercialization hurt the poor?

Commercialization, like technology, can be the prime impetus for poverty-alleviating growth. However, many NGOs are skeptical about export crop production, believing it exposes the poor to unnecessary risks. Recent case studies by the International Food Policy Research Institute indicate technological changes and commercialization generally benefit the poor in regions producing commercial crops for export markets, increasing incomes and job security.

Commercialization is usually introduced to create new markets where demand for traditional commodities has become inelastic. Commercialization by itself does not generally bring adverse consequences. Bad consequences usually reflect bad policies—constraints on trade, production coercion, and ill-advised tenancy laws.

In Guatemala opening new markets for vegetable exports boosted production of high-value, labor-intensive crops. Small farmers' incomes grew, and agricultural employment jumped 45 percent. This success reflected good farming conditions, roads, cooperatives, and farmer know-how.

Commercialization is not without its problems. In many countries it is difficult for women to take advantage of new export markets developed through commercialization and technological advancement—even though household incomes and the health of women

and children increase. In The Gambia, Guatemala, Kenya, the Philippines, and Rwanda, women's role in new technologies or commercialized crops was greatly reduced, even where women were important contributors to farm production before the change.

In The Gambia, where rice was traditionally a women's crop, women had trouble using new rice irrigation technology because they couldn't hire the necessary labor. But household income increased, increasing caloric intake and reducing women's seasonal weight fluctuations. In the Guatemalan export vegetable cooperative, household food consumption improved despite male control of new income. Paradoxically, the expanded employment demand increased child labor to the point where school schedules had to be altered, while income increases enabled new investments in improved child welfare. Rather than undermining the benefits of commercialization and technological change, these examples reiterate the need to improve women's access to productive resources.

Another common concern with commercialization is increased incentives for landowners to evict tenants and move to owner operation of farms. In the Philippines, an administrative ruling excluded tenants from contracts for sugarcane growing, leading to landlessness and reduced tenant welfare. Such consequences can be avoided by good policy.

Coerced production is another threat to successful commercialization. Governments and monopolists may coerce production in an effort to shift losses from a poorly designed commercialization scheme, or to capture excessive profits. In Rwanda an unsuccessful tea production program resulted in smallholders being coerced to produce unprofitable tea. The new processing capacities were not utilized, so the parastatal tea factory expanded by expropriating nearby small farms. Egyptian cotton and rice schemes and Chinese cereal programs also have suffered from coerced production because of bad program design.

The opposite concern is exclusion from new production opportunities. Colonialism frequently reserved major production opportunities for whites. Similar constraints on smallholders have re-emerged in the form of regulations passed for the indigenous elites. Until 1992 in Malawi, small farmers were only allowed to produce tobacco under contractual arrangements with large estate owners, for whom tobacco production was reserved by regulation.

Commercialization and technological change must be accompanied by enlightened policy. Otherwise increased income and employment may be undermined by inequitable distribution.

Source: Binswanger and von Braun 1991.

and greater rents from scarce foreign exchange. By the early 1980s in Tanzania, for example, the availability of consumer goods in rural areas plunged. With the collapse of urban labor markets in many countries in the early 1980s, the urban middle class probably suffered the largest welfare declines. The urban poor, a much smaller group, also suffered. But they were partially protected by the greater resilience of the informal sector, where most urban poor obtained their livelihoods. Rural and urban poor women were more vulnerable, and were probably disproportionately hurt by falling incomes, rising prices, and cutbacks in social services.

In countries with flexible exchange rates there was generally no rise in rationing of foreign exchange or other products. But the failure to tackle fiscal problems and decline of competitiveness led to worsening poverty, especially in rural areas. Absent exchange rate adjustment, the impact on poverty was even more severe, as household data from the Côte d'Ivoire Living Standards Measurement Survey clearly showed. GDP declined under an abandoned adjustment effort, and the number of people living in extreme poverty increased by 57 percent. The decline in income (as opposed to a redistribution of income from the poor to the wealthy) was the biggest influence on poverty during the second half of the 1980s.

How did countries that implemented adjustment policies fare? Depreciations of the real exchange rate are strongly associated with renewed growth in Africa. Economic modeling for Côte d'Ivoire (Lambert, Schneider, and Suwa 1991) and Cameroon, Madagascar, Malawi, and Niger (Dorosh and Sahn 1993) indicate that real exchange rate depreciations reduced both poverty and income inequality. Half the adjusting countries effectively implemented basic adjustment reforms and saw GDP per capita growth increase. In countries that have undertaken some reforms and increased GDP per capita growth rates, the majority of the poor are probably better-off, and almost certainly no worse off.

Evidence on income sources and food consumption patterns of the rural poor (90 percent of Africa's poor) also allow some inferences about how adjustment reforms have affected the poor (Dorosh and Sahn 1993). Most poor agricultural

producers in Africa still rely on selling their produce for a significant part of their income, but the share of tradables they sell is low. Improvements in the price of tradable crops (as a result of real exchange rate depreciations and marketing reforms) have a positive, direct impact on the incomes of the rural poor in the short run, but the effect is not large given the low share of exportable tradable goods they produce.

Many governments have reduced taxation of agriculture (through real exchange rate depreciations and marketing reforms). But only a third of the adjusting African countries increased real producer prices for export crops because of major declines in world prices. In the other adjusting countries, reforms have not increased real producer prices, but have stemmed the impact of sharp falls in world prices. So many rural areas have not seen export booms as a result of adjustment.

Even where exportable prices rose in real terms, women probably benefited little, because they primarily produce food for home consumption and lack access to resources to cultivate export crops. For net sellers of food it is the producer prices that count, and data about producer prices are sketchy. Evidence suggests there have not been strong increases in food crop producer prices, particularly parallel market prices, though official producer prices have increased in some countries. This is consistent with food production data which show the rate of growth in food production has increased in African countries that reduced taxation of agriculture. This is likely to have improved the lot of the net food sellers.

At the same time, real depreciations and agricultural reforms probably had little impact on the consumption of net buyers of food. First, the rural poor in most African countries spend the most on food products such as millet and cassava that have little international market value. Domestic production of nontradable foodstuffs has increased in recent years, holding down real price increases. The consumption of own-produced nontradables ranges from 32 percent in The Gambia to 88 percent in the west and south of Madagascar. This high share insulates the poor from increases in imported food prices resulting from real exchange rate depreciations and marketing reforms.

For the urban poor, it is real consumer prices that count. Liberalizations of the marketing of domestic and imported major staple foods have not pushed up real open market prices even when there have been large real depreciations. Limited supply kept parallel market prices high in the preadjustment period. Indeed, real consumer prices have fallen in some countries, including Tanzania, which had the most severe rationing. Real consumer prices for maize, rice, and beans all fell sharply between 1985 and 1987, when food crop marketing was first liberalized. Even in 1992, real prices for these staples remained well below those of the early 1980s (Mayfield 1992 and van den Brink 1993). Major reforms of the rice sector in Guinea and Madagascar have not increased real prices relative to the open market prices before liberalization.

Careful attention to the impact of reforms on population subgroups at high nutritional risk is needed. There are clear instances where specific poor rural groups have been hurt, or have benefited only marginally. For example, in the Mulanje and Phalombe districts of Malawi, the ADMARC depots were closed prematurely, before the market or alternative programs could take over its food security role. They had to be reopened. Attention is needed to timing and sequencing adjustment efforts to avoid such occurrences. Poor urban consumers in Madagascar benefited somewhat from controlled rice prices before the devaluation, but were hurt by the removal of subsidies (though they benefited from other reforms). Some of the urban sector has been hurt by cutbacks in public sector employment. But the effects may be limited, as many of the retrenched were not poor to begin with and have been able to find work elsewhere, according to surveys in two countries.

Social Sector Expenditures

What has happened to social sector spending in adjusting countries? And what have been the consequences for health and nutritional status? The data do not show major cuts in health and education expenditures, but they do show continuing social spending misallocations that work against the poor.

A recent study on Latin America (Grosh 1990) traced public social sector expenditures for nine

countries in the 1980s to determine how social services and social well-being fared during the economic stringencies of the decade.⁵ Real per capita public social spending on health, education, and social security fell during some part of the 1980s in every country in the study. The share of health and education expenditures in total government expenditures fell while social security rose. Numerous efforts to increase the efficiency and equity of social services were unsuccessful, judging from available data. In Brazil the misallocation of social expenditures remains significant (box 5). Despite lower funding, and no apparent increases in equity or efficiency, social indicators generally improved in the 1980s. Possible explanations for this apparent paradox include measurement error, time lags, technological changes, the growing role of NGOs and the private sector, and current benefits of past investment in water, sanitation, and women's education.

In Africa, there is no evidence of a trend to shift education spending away from the secondary and tertiary levels and toward the primary level. Countries varied greatly in the share of education expenditures allocated to primary education: from a low of 33 percent in Uganda to a high of 86 percent in Ghana. For most countries, the share was between 40 and 55 percent, with a median of 52 percent, roughly in line with the median in Asia in 1985 (Tan and Mingat 1992). The poorest children do not attend school.

The story is much the same for health. Many African countries have a strong bias toward secondary and tertiary care. There is no trend toward primary health care or basic health services. In addition, personnel expenditures tend to squeeze out expenditures for essential materials, drugs, and operation and maintenance. Averaged across countries, personnel costs absorb about 70 percent of the recurrent health budget. Box 6 provides a checklist against which to evaluate public expenditures. Some countries, however, are shifting spending to lower-level health facilities (where the most cost-effective health interventions are carried out) and to nonsalary recurrent items.

Throughout the 1980s, Zimbabwe directed new investment to completing the basic health infrastructure—doubling the number of rural health centers from about 500 to more than 1,000 during 1980–90. Senegal has set annual targets for

increasing its spending for drugs, transport, and maintenance.

A Bank study recently examined whether government health expenditures in Asia were targeted at the poor and high mortality areas. The

study found that neither was happening, and that infectious diseases continue to exact a heavy toll (Griffin 1992). Government programs need to be reoriented to give children a healthy start, ensuring environments free from preventable deadly

Box 5. Redirecting social expenditures in Brazil

Level and composition

Brazil spends a higher share of gross domestic product (GDP) on social services than other middle-income countries. Total social spending in 1986 was an estimated 25 percent of GDP, comprising federal government programs (9 percent of GDP), state and local government social expenditures (9 percent), and private household (nonreimbursed) spending on health and education (7 percent).

Incidence

The poorest 19 percent of the population receive only about 6 percent of social benefits. A large share of social expenditure benefits higher-income groups. Regional inequalities are also severe.

Economic efficiency

Inefficient spending is indicated by strikingly low social indicators, particularly in health and education. A large share of social spending pays for private rather than public goods. For example, an estimated 78 percent of all public health sector spending is devoted to high-cost curative hospital services; only 22 percent goes to basic preventive health care—despite the fact that preventive care is more cost-effective and is much

more likely to improve health and potential quality of life.

Delivery of services

Resources are poorly managed in agencies and programs, with wastefully high administrative and personnel costs.

Financing and sustainability

Financing of social programs contributes to mistargeting and inefficiency. The large share of revenues earmarked to particular federal agencies or activities has built empires and impeded the rational allocation of resources. Heavy reliance on payroll taxes—which are regressive—and payroll-based social contributions have distorted the economy. The use of ad hoc agreements (*convenios*) for revenue transfers creates inefficiencies by causing stop-and-start spending patterns and arbitrary allocation of funds. Direct cost recovery of social services is inadequate.

Safety net

No safety net is provided for the poor.

Recommendations

Improved services for the poor can be achieved by better targeting, decentralization with increased

local accountability, new approaches to financing, and expansion of the federal role in quality control and consumer protection. Targeting could be improved by shifting emphasis within certain sectors toward programs that help the poor and away from programs that subsidize the middle class and the rich. Mechanisms to improve targeting include user charges, increased consumer information, and deregulation of prices for private social services. Management and efficiency of some federal programs could be improved through more rapid decentralization of responsibility to the states. Financing of social programs could be improved by reducing reliance on payroll taxes and increasing reliance on income, value-added, and corporate profit taxes, and greater local cost recovery. Options to strengthen the federal government's role in quality control include preparing a social budget, reviewing social welfare indicators annually, and establishing a program to evaluate public and private social services. The government has recently begun to address some of these issues.

Source: *Poverty Reduction Handbook* (World Bank 1992a).

Box 6. Checklist for evaluating public expenditures

In evaluating the overall public expenditure program and the individual sector programs, the following specific issues need to be addressed in establishing the information base for the analysis:

- How much is being spent, and on what?

- On whom is it being spent?
- How efficient and cost-effective are these expenditures?
- How well are services being delivered?
- Is there a role for the private sector or nongovernmental organizations?

- How are expenditures being financed? Are they sustainable?
- How effective is the safety net?

Source: *Poverty Reduction Handbook* (World Bank 1992a).

diseases. The poorer countries are, the less they can spend on health. Yet the poorer their health outcomes, the more the emphasis should be on public health.

Continuing misallocations of social spending clearly work against the poor, but trends in aggregate public spending do not tell the full story. First, the private sector provides many social services. Second, inferences about the delivery of basic services from aggregate public spending are misleading. For example, in Côte d'Ivoire the poor were forced to cut their spending on education and health care in response to declining incomes even though public spending for health was protected. Girls particularly suffered. Third, there could be regional differences in access within countries that do not show up in national data. The remote poor may have little access to public services. Finally, there has been little work on the direct impact of changes in social spending on the health and nutrition of the poor. Disaggregated budget data would enable a detailed analysis of benefits to the poor from public spending.

A relatively small amount of well-targeted funds can significantly impact hunger. A review of food programs in Latin America concluded that, with sensible targeting, the total nutritional needs of Latin America could be met several times over with current expenditure levels (Musgrove 1991). Targeted programs may not stand out in the context of aggregate health and education expenditures. The lack of progress on overall expenditure reallocation hides significantly better targeting of social programs at the poor. This is especially true in Latin America, as Honduras' health and nutrition program shows. Broad review of Latin American food programs finds sensible targeting criteria included in most. These steps toward better targeting of relatively small programs are significant advances.

Participants in the preparatory workshop for the Conference on Overcoming Global Hunger discussed the poor progress on better-targeted social spending. The poor and hungry need to be heard. Borrowing governments ignore these groups when deciding how to target social expenditures and overall budgets. This continues despite consistent Bank efforts to persuade governments to better help the neediest.

Where it supports structural adjustment, the Bank is committed to encouraging countries to

seize the opportunities provided in adjustment programs to redirect policies and programs in favor of the poor; better target social expenditures and food subsidies to the poor and vulnerable, partly through the programs discussed in part II of this report; increase compensatory expenditures for vulnerable groups through safety net actions including social funds and employment-oriented programs; and provide funding levels for primary health, nutrition, and targeted food assistance programs sufficient to maintain or expand existing levels of coverage.

The Bank's lending to reduce poverty and hunger complements its structural adjustment efforts. Poverty reduction is the central theme of the Bank's lending programs. To this end, Bank-supported investment operations seek to improve the targeting and quality of basic health and education services, provide a social safety net, improve access to safe water, agricultural extension, and credit, increase food security, and enable the poor to acquire land and other assets.

Participation and Decentralization

A recurrent theme during the conference was the need to involve the beneficiaries and local organizations with the identification, design, monitoring, and evaluation of all hunger related programs. As the NGOs stressed at the conference, projects and programs that aim to provide social or economic services to a large number of people will be more effective if they have strong beneficiary participation. When communities and individuals take full ownership of projects, they are far more likely to succeed (box 7). Irrigation, forestry, livestock, water, health, and other projects undertaken by the Bank with local participation have performed much better than those without beneficiary involvement. At the conference Bank officials and NGO representatives acknowledged that community participation is too often neglected, and that greater effort is needed to promote participatory development. To achieve true participation, new attitudes and new skills are needed. Introducing this new approach will require careful planning and management, particularly where there is little experience with beneficiary participation in public sector projects and service delivery.

With a grant from the Swedish International Development Authority, the Bank created a learning group to understand the role of local participation in development projects. This group has studied twenty projects that included a high degree of local participation. It is incorporating the lessons learned in a Participation Sourcebook to help guide governments and Bank staff in adopting participatory approaches in project work.

The institutional design of poverty-reduction projects is also critical. Local NGOs and CBOs should be encouraged to provide leadership in such programs. Special care is needed to ensure that local vested interests do not obstruct the proper administration of programs. Social analyses can help clarify the gender, sociocultural, and demographic dimensions that may significantly influence the outcome of programs. *Beneficiary assessment* is one promising method of collecting information on these factors. It has been used to strengthen program design in a number of Bank projects (box 8).

NGOs and CBOs can provide valuable insights about a country's culture, practices, and attitudes to project design and implementation. NGOs rightly stress that effective participation requires full recognition, respect, and support of community rights and social processes. Programs

must respect practices and food preferences which contribute to cultural identity. Many NGOs and CBOs have an innovative, entrepreneurial approach to development. They have created programs—such as the Grameen Bank in Bangladesh—which have clearly reduced poverty and hunger. The Bank is increasingly involving NGOs and CBOs in all phases of project and program development and execution. At the conference the Bank underlined its commitment to further developing mechanisms for Bank-NGO collaboration.

Participation by poor and hungry groups in program administration often requires devolving central government authority and fiscal resources from hierarchial bureaucracies to local governments and communities. As the NGO statement to the conference emphasized, true empowerment of the poor depends on increasing their access to productive resources—land, capital, technology, and skills. This empowers local groups to participate in their own development. The best-intentioned central bureaucracies do not sufficiently consider local factors as a municipality or CBO would. A review of sector reports completed in more than ten countries reveals that development projects would have been more successful had the borrower governments devoted greater fiscal resources and responsibili-

Box 7. Ghana rural water supplies—importance of local participation

Between 1973 and 1981 the Water Utilization Project in Ghana installed 2,700 boreholes and handpumps in 1,000 poor villages with a total population of 600,000 to 700,000 people. It soon became evident that residents used the wells only when other water was not available—wellwater did not taste the same—and as long as the pump did not break down. Villagers repaired the pumps only reluctantly because they viewed them as Canadian or government pumps—not their own.

The project began to improve in the early 1980s when the project focus was shifted from technology to community development. The participation of the villagers, particularly women, and a public

health component, using public radio broadcasts, were incorporated. An estimated 75 percent of the rural population in this area now has access to safe water. About 90 percent of the pumps are working and health standards have improved; the incidence of guinea worm and diarrhea has declined and women use less effort to collect water.

This project demonstrated that the learning period can be long and that projects must be allowed—indeed, helped—to evolve. The project did not succeed until the beneficiaries were active partners and participated fully. The project today is vastly different from when it was first established.

The current phase of the pro-

ject will expand the number of wells and handpumps to include all villages in the region and replace the pumps with a more appropriate model manufactured in Kenya. There is also pressure for this project to expand into more activities. Others argue, however, that the project should remain focused on water supply and that the next stage should be to shift responsibility to Ghanaians—and encourage the government to adopt similar approaches in other parts of the country.

Source: *The Water Utilization Project: A Case Study on a Water and Health Education Project* (CIDA 1990).

ties to local authorities. In Mexico, for example, municipalities successfully implemented tens of thousands of small-scale development projects once they were given small sums and sufficient authority under the Bank-assisted Municipal Funds Programs.

How well does decentralization work in serving the poor? Much depends on local political and social structures. For example, a recent report on the results of the decentralization of rural development administration in Karnataka, India, suggests that local governments have speeded up the execution of development projects and programs, and made them correspond more closely to the preferences of local communities. Nevertheless, they have not increased those program activities which directly benefit the poorest or better dealt with environmental externalities. Central support for such programs is necessary even if they are locally planned and executed.

The Municipal Funds of Oaxaca (one of the poorest states in Mexico) directly transferred project resources to small rural communities. For the first time, these communities had the fiscal resources to carry out small local projects. These resources helped to mobilize considerable contributions from beneficiaries.

Decentralization of fiscal resources must be accompanied by mechanisms for ensuring greater accountability of local governments to their populations, as has occurred in India with the recent reintroduction of an elected local government (box 9). The Bank is progressively strengthening Bank-assisted operations by integrating the lessons from the Learning Group on Participation into its activities. This includes encouraging greater beneficiary participation through greater decentralization of functions and fiscal resources to local governments and CBOs and strengthening local accountability to beneficiaries.

Box 8. Beneficiary assessment

Beneficiary assessment is a largely qualitative method of inquiry that seeks to sensitize decisionmakers to the points of view of key actors in development—beneficiaries, service providers, and managers. Since 1981 beneficiary assessments have been conducted for twenty-six World Bank-financed projects in seventeen countries. Assessments have so far been conducted in agricultural, urban, family planning, health, educational, industrial, and energy projects by local personnel, with orientation provided by Bank staff or consultants.

Beneficiary assessment involves interviews with a sample of beneficiaries followed by one to three months resident observation of project beneficiaries. Project managers or policy designers participate in the assessment from the outset. Interviewers are trained to be precise, based on a preformulated guide, to facilitate quantification of findings.

Findings from beneficiary assessments conducted to date include:

- Renters in a squatter upgrading project in La Paz, Bolivia who had not been provided water and sewer connections continued using traditional ways. This negated the value of the improvements for the entire area. Subsequent upgrading covered all residents of a site—homeowners and renters.
- Residents in diverse urban areas—in Burundi, Ecuador, and Thailand—rejected long-term loans for piped water and home improvements. Technicians had estimated the ability of these people to pay for betterment on the basis of average monthly income, but the people considered such long-term commitments too risky. They feared that, during unemployment, they would not be able to afford the monthly payment.

The residents preferred paying rent or the higher rates for trucked water. Loan terms were restructured to better accommodate beneficiaries' financial situations.

- Parents in rural Mali, where only 15 percent of primary school-age children were in school, were found to value formal education mostly as a stepping stone to public sector employment, for which there has been a rapidly diminishing demand. An informational campaign is being conducted about the benefits of literacy and mathematical skills to the families' agricultural production in order to encourage parents to send their children to school.

Source: Poverty Reduction Handbook (World Bank 1992a). See also Salmen (1987 and 1992).

Box 9. Rural development administration in India

The Indian constitution developed after independence (1947) gave the states strong powers to administer their own development. Agriculture and irrigation, for example, are state matters. While it mandated elected local governments at village and district levels—the Panchayati Raj—the constitution left the assignment of local functions and resources to each state. Most states starved local governments of resources and let the electoral process at the village and district level decay.

A revival of the Panchayati Raj system began in the 1980s in the states of West Bengal and Karnataka, where district elections to the councils at village,

block, and district level became mandatory. The state's own centralized development agencies were subordinated to the elected council, which received substantial authority to decide development spending. These measures were opposed by the state level bureaucracies and specialized development agencies; however, the result has been accelerated rural development, much more closely matched to the desires and needs of local populations, and a reduction in misappropriation of funds and corruption. The local bodies in Karnataka still do not fully take the interests of the poor into account, but service delivery has improved.

After forty-five years of independence, India recently approved a constitutional amendment that makes similar changes mandatory for all the states that have ratified the constitutional amendments. Apart from the mandate of direct elections to the village, block, and district councils, the amendment mandates an independent electoral commission at the state level to supervise the elections, and a finance commission with statutory representation of both the state and the districts. The commission assigns responsibilities to the different levels of government and redistributes the fiscal resources of the state among the state, the districts, and the villages.

Specific Actions and Programs

Part I of this report discussed ways to reduce poverty and hunger with general economic policies and investments in human capital, and how to adjust economies that have veered off the path of broad-based growth while protecting the welfare of the poor. The report also discussed general policies to increase effective participation of the poor in their own development. In part II the report deals with direct interventions that can cost-effectively reduce hunger or increase the incomes of the poor. Participants at the Conference on Overcoming Global Hunger emphasized the need for greater support for such interventions.

The most appropriate mix of actions depends on the economic circumstances of each country and on the characteristics of the poor and hungry. These factors should be analyzed in the poverty profiles and strategies for each country. This section emphasizes actions likely to be cost-effective in most countries. The actions represent best practice distilled from the worldwide experience of countries and international organizations. The interventions will not likely result from private sector initiative. They can be implemented by NGOs and community groups, the government or the private sector, but they require partial or full government financing. The actions are ordered roughly in terms of the immediacy of their impact on the reduction of hunger, and the cost and complexity of their implementation. The

precise priority depends on country considerations and on the specific characteristics of the different subgroups of the poor.

Urgent Low-Cost Actions to Reduce Hunger

Increasing the income, education, and access of poor people in developing countries to basic health care, clean water, and sanitation is the surest way to reduce hunger. However, experience has shown that remarkable short-term results can be achieved—even without growth—by implementing a variety of low-cost direct interventions. These actions can be undertaken by governments, NGOs, or community groups with support from donors and the specialized agencies and organizations of the UN, such as the World Health Organization (WHO), UNICEF, and the World Food Programme (WFP). Several of these interventions are simple and cheap, and can therefore be successful even where the government is weak. There is no excuse for delaying implementation of these actions. The poor and hungry cannot wait for macroeconomic stabilization and structural reform.

The best recent example of a simple, low-cost action (implemented by countries with international assistance from UNICEF, the U.S. Agency for International Development, and others) is the campaign to make oral rehydration therapy widely available in developing countries (box

10). It has saved and improved millions of lives, even though the therapy does not cure diarrhea or its underlying causes—inappropriate behavior combined with lack of clean water, sanitation, and health services.

As discussed in *World Development Report 1993* (World Bank 1993c) and during the Conference on Overcoming Global Hunger, there are at least three other sets of actions that can cheaply and quickly reduce malnutrition:

- Measures to overcome micronutrient deficiencies
- Expanded childhood immunization
- Control of parasitic infections that cause anemia and malnutrition.

Micronutrients and Protein-Energy Malnutrition

Micronutrient deficiencies seriously undermine the health and productivity of the poor—especially deficiencies of vitamin A, iodine, and iron. Both vitamin A and iodine deficiency are particularly common in Asia and Sub-Saharan Africa. Vitamin A deficiency increases the severity and mortality of infections, especially measles and diarrhea. In many countries one quarter of early childhood deaths could be prevented by ensuring children receive adequate vitamin A. Vitamin A deficiency also causes vision loss and is the pri-

mary cause of acquired blindness in children. The WHO calculates that 13.8 million children have some degree of eye damage because of vitamin A deficiency; of these, 250,000 to 500,000 go blind every year, and two-thirds of the blinded children die.

Iodine deficiency causes mental retardation, delayed motor development, and stunting, as well as neuro-muscular speech and hearing disorders. Iodine deficiency is the leading preventable cause of intellectual impairment in the world. Iodine deficiency causes cretinism in about 5.7 million people and mental retardation in about 20 million people.

Iron deficiency is the most common micronutrient disorder. It reduces physical productivity and the capacity to learn. By reducing appetite, it may diminish a child's food intake and growth. Women especially suffer from iron deficiency because menstruation and childbearing raise their need for iron. Anemia—a shortage of iron in the blood—increases the risk of death from hemorrhage during childbirth. The problem is most active in India, where 88 percent of pregnant women are anemic. Almost 60 percent of women are anemic in other parts of Asia.

Diets must contain both energy and protein. Because little is known about the relative importance of adding energy or protein to an initially

Box 10. Oral rehydration therapy: an effective, low-cost way of reducing deaths

One of the most successful examples of a simple, low-cost action is oral rehydration therapy (ORT) to reduce death caused by diarrhea. Ten years ago, diarrhea was one of the major killers of the world's children, claiming nearly 4 million lives each year. Most of the victims died of dehydration, a symptom of larger, complex problems, including lack of adequate education, nutrition, and water and sanitation.

In the mid-1970s, however, doctors found that an oral solution of sugar, salt, and water could prevent dehydration better and cheaper than an intravenous injection of glucose, which had been the standard until then. The solution was produced and packaged

for less than \$0.10 a packet. UNICEF, USAID, and others then aggressively promoted the packet's use in the developing world through education programs, including contests and public demonstrations, and by tapping the support of civic organizations, religious groups, and heads of state. As a result, ORT is used by one family in three in the developing world, saving about one million lives a year. Diarrhea is no longer the leading cause of childhood death.

Still, diarrhea is by no means a conquered foe. It continues to cause about 1.5 million deaths a year. One major problem is that ORT cannot address two leading cause of diarrhea: dysentery and

persistent diarrhea, which require appropriate antibiotic treatment. Developing countries and aid organizations therefore must also increase efforts in other areas. Some of the areas include improving water cleanliness and sanitation and educating parents about preventing diarrheal disease, such as the importance of breastfeeding, giving children extra meals after the illness is over, and washing hands before touching food.

Nevertheless, low-cost, highly effective programs such as ORT cannot wait and need to be expanded rapidly. Such programs are well within the capacities and financial resources of even the poorest countries.

poor diet, the effects of deficiencies in either or both components is combined under the term "protein-energy malnutrition." Protein-energy malnutrition raises the risk of death and may reduce physical and mental capacity. Worldwide about 780 million people are estimated to be energy-deficient according to WHO standards. It is not known how many of them are also protein-deficient, or how many people who get enough energy may still suffer from a protein shortage.

According to *World Development Report 1993*, in 1990 dietary deficiencies caused a direct loss of almost 46 million disability-adjusted life years (DALYs) and represent 3.4 percent of the global burden of disease (table 1). (DALYs measure the burden of disease; they combine healthy life years lost because of premature death with those lost as a result of disability.) Anemia accounts for 1.3 percent of the total female disease burden, and 24 percent among women of reproductive age. Children under five are the principal victims of vitamin A deficiency, iodine deficiency, and protein-energy malnutrition. The nutritional disease burden for young children is 32 million DALYs, or 6 percent of their total burden of illness.

Malnutrition's total impact on health is much larger. Mild or moderate protein-energy malnutrition and micronutrient deficiencies (as well as

overconsumption of energy, fat, salt, and sugar) are risk factors for illness and death. Studies in Asia and Africa consistently show that mild-to-moderate stunting or underweight increases the risk of premature death and contributes to 25 to 50 percent of childhood mortality. The greatest risk occurs for children in their second year, after they are weaned. Malnourished children die principally from measles, diarrhea, respiratory disease, tuberculosis, pertussis, and malaria. Child deaths from these diseases cost 231 million DALYs, making the total burden attributable to malnutrition at least one-quarter that amount, or 60 million DALYs.

Immunization

One way to tackle such problems is through population-based health interventions, including the Expanded Program on Immunization (EPI), which relies on personnel with limited training to provide drugs, vaccines, or specific health services directly to target populations—in schools, at work sites, or in households. Government finance for such community-based programs is justified because of their high cost-effectiveness. The objective is usually to provide services to all members of a community, because the services

Table 1. Direct and indirect contributions of malnutrition to the global burden of disease, 1990

(millions of DALYs, except as specified)

Type of malnutrition	Sub-Saharan Africa		India	China	Other Asia and islands	Latin America and the Caribbean	Middle Eastern crescent	Formally socialist economies	Established market economies	World
<i>Direct effects</i>										
Protein-energy malnutrition	2.2	5.6	1.7	0.9	1.0	1.0	1.0	0.2	0.2	12.7
Vitamin A deficiency	2.2	4.1	1.0	2.5	1.4	0.5	0.5	0.0	0.0	11.8
Iodine deficiency	1.7	1.4	1.0	1.3	0.5	1.4	1.4	0.0	0.0	7.2
Anemia	1.0	4.5	2.7	2.3	1.0	1.5	1.5	0.4	0.6	14.0
Total direct	7.0	15.5	6.3	7.0	3.9	4.5	4.5	0.6	0.9	45.7
Total DALYs per 1,000 population	13.8	18.3	5.6	10.3	8.9	8.9	8.9	1.7	1.1	8.7
<i>Indirect effects (minimum estimate)</i>										
Mortality from other diseases attributed to mild or moderate underweight ^a	23.6	14.9	3.3	8.0	2.4	8.0	8.0	0.0	0.0	60.4
Mortality from other diseases attributed to vitamin A deficiency ^b	13.4	14.0	1.0	7.0	1.8	2.0	2.0	0.0	0.0	39.1

a. Based on the global burden of disease attributable to deaths from tuberculosis, measles, pertussis, malaria, and diarrheal and respiratory diseases in children under age five; in developing countries 25 percent of those deaths are attributed to mild or moderate underweight.

b. Based on estimated deaths attributable to vitamin A deficiency in age groups 6–11 months and 1–4 years. These account for, respectively, 10 and 30 percent of all such deaths in high-risk countries and for 3 and 10 percent of all such deaths in other countries. Thirty lost DALYs are attributed to each child death; losses are redistributed to the regional classification used in this report.

Source: *World Development Report 1993* (World Bank 1993c).

create externalities or indirect benefits, and because the diseases they typically combat are particular problems for the poor. Health interventions are also particularly important for hunger reduction, including immunization and mass treatment for worms. The EPI now reaches about 80 percent of children in developing countries and averts an estimated 3.2 million deaths a year at a cost of \$1.4 billion a year.

Vaccines to prevent tuberculosis, measles, diphtheria, pertussis, tetanus, and polio have revolutionized preventive medicine over the past two decades. Costs are less than \$10 per DALY gained for measles immunization, and less than \$25 for a combination of polio and DPT (diphtheria, pertussis, and tetanus) immunizations. These vaccines, together with BCG immunization against tuberculosis and leprosy and immunization of pregnant women against tetanus, form the basis of the EPI. As a result of the EPI, the share of children immunized rose from less than 5 percent in 1977 to 20 to 30 percent by 1983. By 1990 polio, DPT, and measles vaccines had reached approximately 80 percent of all children, and about 35 percent of pregnant women were receiving tetanus toxoid.

Had vaccination coverage remained at the low levels of the 1970s, as many as 120 million DALYs a year (the equivalent of 23 percent of the global burden of disease among children under age five in 1990) would be lost to the diseases prevented by the EPI. At current levels of vaccination coverage these diseases cause a loss of 55 million DALYs, or 10 percent of the disease burden among children under age five. The cost of fully immunizing a child in low-income countries is about \$15, with a range of \$6 to more than \$20, depending on the prices of labor and other local inputs.

Two extensions of the EPI appear to be justified. First, coverage should be extended, probably to 90 percent of all children. The costs of expanding coverage are relatively high, but so are the gains. Those not covered often lack any health services and are disproportionately vulnerable to the diseases. Second, it makes sense to include additional items in the package: hepatitis B and yellow fever vaccines for selected countries and vitamin A and iodine supplements in regions where deficiency of these nutrients is highly prevalent. If micronutrients are not delivered through EPI,

some other vehicle must be found for reaching very young children. Adding these two vaccines and two micronutrients to the EPI (EPI Plus) would improve health substantially, particularly in the poorest households, for a modest increase of about 15 percent in the cost of reaching each child with complete services (vaccines and micronutrients). The estimated costs and health benefits of the EPI Plus cluster in two different settings are shown in table 2. Total annual costs range from between \$2.2 billion and \$2.4 billion for EPI Plus—less than 2 percent of the public health expenditure of developing countries. Expanding coverage from 80 to 95 percent would probably increase annual costs by between \$500 million and \$750 million. In low-income countries the increased coverage would reduce the global disease burden by about 6 percent.

Mass Treatment for Parasitic Worms

The most common intestinal worms—roundworms, hookworms, and whipworms—each infect between 170 million and 400 million school-age children annually. Schistosomiasis infection, also caused by parasitic worms, affects almost 100 million school-age children annually. The immediate effects of infection—including failure to thrive, anemia, and impaired cognition—can now be rapidly reversed by low-cost, single-dose, oral therapy. Studies of single-course treatment of school children with hookworm or schistosomiasis in Kenya, with worm-induced disease in India, and with trichuriasis in the West Indies showed remarkable spurts in growth and

Table 2. Costs and health benefits of the EPI plus cluster in two developing country settings, 1990
(U.S. dollars except as specified)

Costs and benefits	Low-income countries (high mortality and fertility)	Middle-income countries (low mortality and medium fertility)
Cost per capita	0.5	0.8
Cost per fully immunized child	14.6	28.6
Cost per DALY gained	12–17	25–30
Cost per DALY gained as a percentage of income per capita ^a	0.14	0.03
Potential health gains as a percentage of the global burden of disease	6.0	1.0

Note: Figures are based on 95 percent coverage.

a. Income per capita in 1990 was assumed to be \$350 for low-income countries and \$2,500 for middle-income countries.

Source: *World Development Report 1993* (World Bank 1993c).

development in all the populations studied, including large percentages of children with asymptomatic infections. Treatment also improved cognitive development.

Because it is not necessary to determine which species are present, curing worm infections is simple with inexpensive modern drugs such as Albendazole and Praziquantel. The safety of these drugs has led the WHO to develop protocols for mass use (where a high prevalence of infection exists) and by providers who are not medically trained. That makes for high cost-effectiveness. Treatment usually cures the current infection, but in endemic areas, children will inevitably become reinfected. A return to pre-treatment levels of infection typically takes about twelve months for roundworm and whipworm and twenty-four months or more for hookworm. Rates of reinfection can be reduced by environmental improvements, especially sanitation, but where this is impractical or unaffordable, it is cost-effective to repeat the therapy at regular intervals.

The benefits of individual treatment can be significantly enhanced by communitywide treatment which, by lowering the overall levels of environmental contamination, slows the rate of reinfection. Treatment programs targeted at the most heavily infected group (school-age children) reduce infection immediately both among those treated and in the rest of the population. Treatment through schools also allows delivery at a relatively low cost. A program in Montserrat cost less than \$1.50 a person for a cycle of eight treatments. A program managed by an NGO in Jakarta initially cost \$0.74 a person a year. After expansion to almost 1,000 schools, costs fell to \$0.26. Such programs are extremely cost-effective, at \$15 to \$30 per DALY gained. In light of this cost-effectiveness and the burden of disease addressed, the Rockefeller Foundation and the United Nations Development Programme (UNDP) are initiating a major program to document and explore the potential of school-based health interventions that focus on deworming, provision of micronutrient supplements, and health education.

World Bank officials recognize that the main actors in these areas are countries, NGOs, UNICEF, the WHO, and bilateral donors. The Bank stands ready to assist each borrowing coun-

try to prepare and finance actions to implement the three hunger-reducing health and nutrition interventions to achieve the following goals through community-level delivery:

- Reduce vitamin A, iodine, and iron deficiencies through fortification, supplementation, and dietary modification.
- Expand childhood immunization coverage from 80 percent to 90 percent.
- Implement a low-cost program for controlling parasitic infections that cause anemia and other forms of malnutrition.

Food Supplementation

Direct, low-cost actions to reduce hunger are needed. They will not solve chronic malnutrition alone. That will require greater financial and institutional resources. Nevertheless, such actions have been profoundly successful and highly cost-effective. National health services, NGOs, and other groups are able to provide basic health care services to poor groups at affordable costs. Programs to care for pregnant women and children under 3, monitor growth and vaccinate children, provide supplemental feeding, and educate families about proper nutrition and health have been implemented around the world. Growth and nutrition monitoring can also take place in school feeding programs and other social or community-based programs. Many programs have achieved excellent results. Their expansion must therefore be a high priority.

Programs that provide food are not easy to implement effectively. Inadequate targeting and lack of attention to other causes of malnutrition often mean that food is wasted. With proper targeting and attention to changing behavior, however, some supplementation programs have worked. For example, a program in Tamil Nadu, India achieved remarkable gains by distributing food only where children's growth faltered, while providing information to mothers through highly motivated community nutrition workers (box 11). This success came despite economic stagnation. There was no improvement in districts not participating in the program.

Most developing countries have also created programs to assist those who have insufficient resources to eat, often costly programs handing out food staples, subsidizing food prices, or giv-

ing food rations or coupons. Many of these programs are poorly targeted and wasteful. By redirecting the resources spent in wasteful programs, hunger reduction could be achieved at reduced cost in many countries. The best programs raise the real incomes of the direct beneficiaries and provide a safety net to protect a wider group of the poor against collapses in real incomes.

General Food Price Subsidies

General food price subsidy schemes supply unlimited amounts of subsidized food to anyone who wishes to buy it. Brazil, China, Colombia, Egypt, Mexico, Morocco, Pakistan, Sudan, Thailand, Tunisia, and, before 1972, Sri Lanka have all operated schemes of this kind, some national and some regional. Costs ranged from less than 1 percent of total public expenditures in Colombia in 1978 to 1980 to 10 to 17 percent in Egypt between the mid-1970s and 1984. Egypt's experience illustrates the advantages and drawbacks of these schemes.

Egypt's marketwide food subsidy program has been costly, but it has succeeded in reaching the poor. During 1981 and 1982 the transfer value represented a sizable portion of the total expenditure of the poorest urban and rural groups—8.7

percent in 1981 and 10.8 percent in 1982. A common feature of these schemes is that the rich receive a greater allocation per person than the poor, although this amount often accounts for a smaller share of income. In Egypt urban households in the top quartile received 18.1 Egyptian pounds (equivalent to 3.4 percent of household expenditures), compared with 15.4 Egyptian pounds (8.7 percent of household expenditures) for urban households in the lowest quartile (table 3). All benefits going to the nonpoor add to the costs of reducing poverty. Indeed, if general subsidies are to provide reasonable transfers to the poor, they become very expensive. In Egypt, only about twenty cents of each dollar spent reached those in the lowest quartile.

A better way to reach the poor is to limit subsidies to commodities consumed mainly by the poor. In Egypt benefits from subsidies on coarse flour accrue mainly to low-income groups. The urban poor gain more from the bread subsidy than do the rural poor, but the reverse is true for the wheat subsidy.

Rationed Food Subsidies

An alternative to a general subsidy is to provide a quota, or ration, of subsidized food to house-

Box 11. Tamil Nadu Integrated Nutrition Project: making supplementary feeding work

In the late 1970s the government of the state of Tamil Nadu in South India was operating twenty-five different supplementary feeding programs. Evaluation showed these programs to be ineffective and identified several reasons.

The Tamil Nadu Integrated Nutrition Project, the first phase of which ran from 1980 to 1989, was designed to target services more effectively, to improve family nutrition and health practices, and to improve maternal and child health services.

Children aged 6–36 months were weighed each month. Of every 100 children selected for feeding, 44 were normal in weight but faltering in growth, 34 were moderately malnourished and faltering, and 22 were severely malnourished. Supplementary feeding was pro-

vided immediately to those who were severely malnourished, and feeding for children with faltering growth was provided after one month (for children aged 6–12 months) or three months (for children aged 12–35 months). The children selected were fed for at least ninety days. If they failed to gain at least 500 grams, they were referred to health care, and feeding was continued for up to 180 days. Intensive nutrition education was directed at mothers of at-risk children. Food supplementation was also offered to women whose children were being fed, to those who had numerous children, and to those who were nursing while pregnant.

The project cut severe malnutrition in half and prevented many at-risk children from becoming

malnourished. Of those receiving food supplementation, 67 percent gained enough weight to graduate in ninety days; all except the severely malnourished graduated within 150 days. Because participants were fed only when required, food was only 13 percent of the project's total cost, much less than is typical in supplementation programs. When the program began in 1980, 45 to 50 percent of the children required feeding. By 1988 the project had brought the share down to 24 percent. The decline was achieved by improving access to health institution service and raising demand for such services and access to potable water and sewerage.

Source: World Development Report 1993 (World Bank 1993d).

Table 3. Distribution of the annual income transfer from the general food subsidy, Egypt, 1981–82

Type of household and income level	Amount of transfer (Egyptian pounds)	Transfer as a percentage of household expenditure
Urban		
Poorest quartile	15.4	8.6
Richest quartile	18.1	3.4
Rural		
Poorest quartile	11.9	10.8
Richest quartile	15.2	2.7

Source: Alderman and von Braun 1984.

holds, while permitting unlimited sales on the open market. Schemes of this type have operated in Egypt and in South Asia (Bangladesh, India, Pakistan, and Sri Lanka). The absolute transfer under a general ration is similar for all income groups. Thus, the rations tend to be more progressive than general food subsidies. For example, the absolute transfer to the richest quartile in urban areas under Egypt's general food subsidy was 20 percent greater than that received by the poorest quartile. With the general ration, the rich received 5 percent less than the poor.

Ration programs have often been established for political purposes and have rarely been targeted to the neediest. But it is possible to introduce better targeting and a degree of self-selection into rationing schemes without costly means testing. In northeast Brazil, small amounts of subsidized basic foods were sold through shops in poor neighborhoods that the well-to-do regarded as unsafe. The inconvenience of the locations and the limit on purchase size further discouraged affluent nonresidents from participating. India is now targeting 1,752 poor rural blocks for priority attention in its public food distribution program. It is also expanding the employment guarantee scheme to the same blocks, so that the poor will have the income to buy the food in the expanded network of ration shops.

Food Coupons or Food Stamps

Food stamps are similar to ration schemes, except that the quota is measured in nominal currency units rather than commodity weight. Food stamps are usually better-targeted to needy groups than rations.

Facing fiscal crisis, Sri Lanka in 1978 replaced its forty-year-old general food subsidy and ration scheme with a food stamp program. The total

transfer was lower, and administrative efficiencies led to substantial savings. Stamps for food and kerosene were targeted to families with self-reported incomes of less than 300 rupees a month—about half the population. The government removed all other subsidies on food by 1980. Food subsidies' share of GNP dropped from 5.0 to 1.3 percent between the mid-1970s and 1984. And their share of total government expenditure fell from 15 to 3 percent during the same period. But the real value of food stamps eroded in the 1980s from 83 percent of the benefits of the general subsidy at the time of introduction to 43 percent in 1981–82. Similarly, Mexico has replaced its general urban maize subsidy program with the Tortivale program. The program successfully targets one kilogram of tortillas per day to urban households earning less than two minimum wages.

Targeting Hungry Families through Nutrition and Growth Monitoring

The most precise way to target food and nutrition is through monitoring in health posts and schools and through special programs. Monitoring programs often combine health, education, and nutrition with subsidized or free food. Many countries currently have primary health care systems to help the sick that are completely separate from food distribution systems that help the hungry. Few have integrated systems that successfully address the relationship between hunger and health—a child may be taking in enough calories, but could also be carrying a parasite. Chile has achieved this integration over the past thirty years and shows the long-term payoffs of this strategy (box 12). A recent United Nations (UN) study found that “the only effective way to improve growth is to reduce the burden of infection at the same time as improving dietary intake. Conversely, health programs that do not attend to increasing food availability at the family level and improving dietary intake by sick individuals will have limited impact on growth and morbidity” (Tomkins and Watson 1989, p.42).

Nutrition monitoring in health or family welfare programs or in schools can identify undernourished children or their mothers. Through the children or the mothers the programs can identify and target other poor people—hungry fami-

lies. The hungry child or mother provides reliable information on the nutritional status of the rest of the family. While providing the food or purchasing power for the whole family of the hungry individual is costly, it is usually much cheaper than food subsidy schemes, which rely on imprecise targeting. There may even be a net savings if poorly targeted programs are phased out. Such programs can also educate families and monitor their progress.

Providing take-home rations for families would overburden the health system or school-based monitoring program. Instead, food stamps or vouchers can enable the family to obtain free food in ration shops or other outlets. On-site feeding is preferred only where the special nutritional needs of the monitored child or mother are the primary objective.

Providing food entitlement through health-based programs is particularly attractive. The health post can diagnose and treat disease and nutritional deficiencies with drugs or special foods. It can also provide vaccinations and health and nutrition education to improve behavior. Chile's programs are based on this approach. The Jamaican, Honduran (box 13), and Mexican experiences are also instructive.

Jamaica. Jamaica's food stamp scheme was introduced in 1984 to protect vulnerable groups from the full impact of exchange rate movements and reduced public spending. Stamps are targeted to pregnant and lactating women and to

children under five through registration at primary health care clinics. The system encourages preventive health care and successfully screens out wealthier households, which tend to use private facilities. Coverage is high among the intended beneficiaries. This part of the program is markedly progressive. Poor, aged, and handicapped people already on welfare programs and households with annual income under 2,600 Jamaican dollars are also eligible for food stamps. This part of the program is less well-targeted; there is both incomplete coverage of eligible households and leakage to nontarget households.

Jamaica reinstated a general food subsidy in 1986. Although coverage is wider under the general subsidy scheme, targeting food stamps through health posts has a larger impact on the incomes of the poor, at half the cost (table 4). Administrative costs (which are not reflected in the table) are kept low by relying on existing government networks. The value of the stamps has eroded over time, though adjustments were made in 1988, 1989, and 1990.

Mexico. In Mexico, a program similar to Jamaica's and Honduras' was tested through the health centers. While Honduras' PRAF is a countrywide program focused on poor departments (see box 13), the Mexican program is exclusively rural, and distributes food rations rather than coupons. Based on the initial positive results of this pilot, the government is considering a major expansion to the poor in selected rural areas.

Box 12. Chile's success in combining health and nutrition programs

Chile has a long history of combined health and food distribution programs, the most important ones being the Complementary Feeding Program, the School Feeding Program, and the Day-Care Center Food and Education Program. The key objectives of the Complementary Feeding Program are preventing malnutrition among the most vulnerable groups and promoting health through periodic medical visits, immunization, and education on the use and demand of health services among low-income families. The distribution of food not only involved provision of

free food but was also used as a device to attract beneficiaries to demand health and nutrition services (education and food distribution). This was accomplished by channelling the distribution of milk through the infrastructure of the primary health care system, with health clinics and rural posts serving the population nationwide. Since 1983 additional food and more frequent health controls are provided to low-weight pregnant women, undernourished children, and those nutritionally at risk.

Results have been startling. From 1960 to 1992 the infant mor-

tality rate fell from 119.5 to 16 per thousand live births; the child mortality rate dropped from 9.1 to 0.80 per thousand; low birth weight declined to about 6 percent in 1992, a decrease of 45 percent since 1976; and life expectancy at birth increased by more than 13 years, a world-record gain. The greatest reduction in infant maternal mortality has taken place in poorer rural areas, where mortality rates were highest. The decline was achieved by improving access to health institution service and access to potable water and sewerage.

Box 13. Honduras Family Assistance Program

The Family Assistance Program (PRAF) was created in July 1990, and a pilot program was undertaken in 1991 to test the delivery of food coupons through the basic health network. The coupons are targeted to low-income children under 5 and pregnant or nursing mothers. The intervention is concentrated on the earliest stages of infancy and childhood to improve the chances of reaching children before malnutrition causes permanent damage. To maintain eligibility, beneficiaries must meet health surveillance requirements. The program is self-targeted since better-off women usually use private clinics rather than public health facilities.

Beneficiaries receive the equivalent of \$45 a year in monthly coupons. The coupons are redeemed in private stores, which cash the coupons in at private banks, and the banks rediscount the coupons at the Central Bank. Thus the PRAF administers the program, but uses the private sector and existing government institutions. As a result, it has a reasonable administrative cost of 7 percent of total outlays. To simplify the administration of the program, PRAF does not control how beneficiaries spend the coupon. Yet, surveys of beneficiaries and spot checks of participating stores

show that about 88 percent of funds are spent on food, and the balance on school supplies, children's shoes, and medicine.

An evaluation of the pilot program found that the food coupon scheme was cost-effective in alleviating poverty and was more efficient than other nutrition assistance programs. It also provided incentives for using primary health care services. In fact, no sooner was the program started than it became apparent that the existing health system would not be able to cope with the increased demand for health services which accompanied the introduction of the food coupon. During the first year consultations had increased by 131 percent at health centers and posts. To cope, a nutrition and health project was designed to support the expansion of the food coupon program and help the government strengthen the delivery capacity of the primary health care network. As a result of conversations with the Bank and the government, the World Food Programme decided to monetize its food aid to Honduras and use the available funds to participate in the food coupon program.

The PRAF program currently benefits about 100,000 mothers and young children. This represents about 25 percent of the pop-

ulation at risk of malnutrition. It is operated in parallel with another successful food coupon program operated through the primary school network that benefits about 200,000 children.

As a result of the PRAF food coupon program, the government has decided to reevaluate its long-term nutrition strategy. The new government policy, expected to be issued in 1994, would favor the food coupon approach over donations in-kind, which are more costly to administer. Eventually, most external food aid is expected to be monetized and channeled through the food coupon program. Breastfeeding and nutrition education programs would be strengthened in the poorest departments, and school feeding programs would be improved.

One weak spot of the PRAF is the lack of a comprehensive analysis of the impact of the program on mothers and children's nutritional and health status. There also is still considerable scope to expand the program to cover a higher percentage of the population at risk of malnutrition. There is thus need for additional donor support. Because of its stronger impact on nutrition at an early age, the food coupon program distributed through the health centers should receive priority.

These examples prove that nutrition and growth monitoring is a highly effective mechanism to target malnourished families. Targeting can be done in schools or other social or community-based programs, but targeting through the health system has additional advantages. The health post can identify whether malnutrition is due to disease, parasites, or lack of micronutrients or food. It can initiate treatment of the disease or parasites and remedy nutrient deficiencies with foods or supplements. Information on malnutrition accrues at low cost in the routine operation of health posts; this information should be used to better target food aid and

subsidies. Increased access of health posts to food resources is therefore a high priority. Primary health services can be empowered to write "prescriptions" for food for entire families once they have identified the hungry child or mother. As the Honduran and Mexican examples show, such capacity makes the primary health care system more attractive to users. Vaccinations, other public health inputs, and health and nutrition education can be provided to those most in need. These synergies should be fully exploited.

At the conference the Bank committed itself to encouraging countries to shift food subsidies to targeted food assistance programs which provide

food entitlements to families whose children or mothers have been identified as being at risk of malnourishment or low-weight births. Food entitlement should involve on-site feeding, food stamps, or free ration cards rather than take home food distribution.

Improving Effectiveness of Food Aid and Dealing with Famines

For many years in the development community, providing food aid for emergencies and overall food availability has been controversial. Some analysts argue that food aid destroys farm incentives by increasing supply. Others have stressed its unreliability. However, recent evidence suggests that, appropriately used, food aid does not damage farm incentives as much as has been assumed (box 14). On the other hand, food aid is unreliable and tends to be cut during food crises, as in 1973–75. Industrialized countries no longer have large surpluses they need to dispose of. They are likely to hold on to more of their stocks, leaving less for food aid. At the same time, international food crises reduce countries' purchasing power. Countries should therefore avoid excessive dependence on food aid. Food aid should not be seen as a mechanism to directly augment the food supply. It provides the best supplemental resource if it replaces commercial imports without depressing prices and reducing the incentives for domestic food production.

Table 4. General and targeted subsidies, Jamaica, 1988
(percent)

Item	General subsidy	Targeted subsidy (food stamps)
Cost as a share of government expenditure ^a	3.0	1.6
Share of transfer going to		
Poorest quintile	14.0	31.0
Richest quintile	26.0	8.0
Transfer as a share of expenditure per recipient		
Poorest quintile	2.3	9.5
Richest quintile	0.1	1.0
Share of households covered		
Poorest quintile	100.0	51.0
Richest quintile	100.0	6.0

a. Does not include administrative costs.

Source: Jamaica Statistical Institute and World Bank 1988 and 1989

Food Aid

Food aid can be a valuable resource for poor countries. There is a large political constituency for food aid, which includes farmer groups in donor countries, individuals, and organizations concerned about hunger. In 1989 food aid to developing countries amounted to about \$2.5 billion. Food aid represented about 18 percent of total U.S. assistance.

What is the best way to use food aid to reduce hunger? Individuals, NGOs, and donor countries want to make sure that donated food actually gets dispensed to those who need it. They are worried that schemes other than direct distribu-

Box 14. Impact of food aid in Africa

Though food aid averages only 10 percent of total financial aid to developing countries, it represents more than half the food available for consumption in Botswana, Cape Verde, Mauritania, and Mauritius.

What is the relationship of food aid to food production and commercial imports? Three main hypotheses have been advanced:

- Food aid is an addition to local food supplies that ultimately lowers prices and acts as a disincentive to local producers. The immediate effects may be small, but a lagged response can be generated.

- Food aid displaces commercial imports and does not add to domestic food supplies. If there is full displacement, prices should not change and there will be no effect on incentives.

- Food aid is determined to some extent by local food production. But in the medium run it can generate a positive supply effect that increases the level of production.

Lavy (1990) used Sub-Saharan Africa to test these hypotheses. He found that food aid has a significant positive effect on food production. Any disincentive induced by the additional supply of food is offset by the positive effects. The

total net increase in food supply following an increase in food aid is, however, of lower magnitude than expected—because food aid tends to replace almost an equivalent amount of regular food imports.

Food aid is more likely to have a positive effect in countries that use fertilizer intensively. One possible explanation for this is that countries that enjoy a relative abundance of regular food aid can use the resources made available through reduced food imports to invest more in the agricultural sector.

Source: Lavy 1990.

tion of food simply will not achieve this. Therefore they often advocate providing donated food directly to the hungry, as donations or wage payments. Unfortunately, experience shows such direct provision is often costly and inefficient.

People who are not consuming enough food do not need to be given food. They instead need money, food stamps, or ration cards to purchase food. Evidence suggests that poor people spend up to 85 percent of their earnings on food. They are not wasting money. People will meet their nutrition needs more cost-effectively if they receive the money equivalent of the commodities supplied from food aid. Purchasing power provides recipients a wider range of options to deal with challenges to people's livelihood and food deprivation. In India in the mid-1960s, for example, sales of food aid and associated foreign exchange savings accounted for 30 to 40 percent of government revenue. Some of that revenue paid for the infrastructure for the green revolution, which in turn led to considerable increases in food production. Funds can also finance rural employment.

Two-thirds of nonemergency food aid is currently sold in the markets of developing countries. Food aid commodities are often sold below full market value, depressing producer incentives. The proceeds from the sales are often used for general government spending. The revenues from these sales must be better directed to programs that give high priority to hunger alleviation. The other third of nonemergency food aid is directly distributed to people in food-for-work projects and other programs. This aid contributes to hunger alleviation, but would be more cost-effective in the form of purchasing power.

By selling the food in the target country cities, the money can finance food coupons and the overhead costs of combined health and nutrition programs. A good example is Honduras, where the WFP and bilateral donors have used proceeds from the sale of donated food to finance health-based food coupons.

Using food aid in this way will meet the concerns of NGOs, community groups, policymakers, and others that food aid get to the needy. Farmers in industrialized countries wishing to sell their excess harvests should also be satisfied. And the poor in the target country will have a cost-effective way of receiving the benefits of food aid.

Donor governments, NGOs, and international organizations should assist beneficiary organizations to monetize food aid. Where possible, donor governments should amend laws or regulations that obstruct monetization. Monetization will not depress producer incentives if food aid is sold at import-parity prices, and if it replaces commercial imports. The proceeds should be earmarked for more effective low-cost food and nutrition programs, or for employment generation. This will require bilateral donors, the WFP, and other international agencies to carefully coordinate with ministries of health, agriculture, or food supply, and with finance services, the private sector, and NGOs in the countries receiving the food aid.

Famines

Famines often occur without a decline in aggregate food availability, and sharp declines in food availability do not always result in famine. Famine is typically more complex. Understanding its causes and taking effective action require understanding the way markets and governments work in a crisis and the capacity of people to protect themselves. Alleviating famines requires addressing food supply management, health care, employment generation, and agricultural assistance. When done right, such strategies can be highly effective. Botswana is a good example (box 15). To avoid famines we must fight poverty. It is typically the poor who suffer in famines. Their vulnerability depends on the history of poverty prior to the aggregate shock.

The main actors in famine relief are the United Nations Department of Humanitarian Affairs (UNDHA), the WFP, the Food and Agricultural Organization (FAO), UNICEF, and many community groups and NGOs. The IMF has a special food facility to finance imports of food.

Famine from drought and desertification is a slow-onset disaster which can be greatly mitigated by advance warning and prompt countermeasures. Governments can stabilize prices and food supplies by building up financial or physical reserves, or through imports. The Bank has never sought to be a relief agency, and it is not equipped to become one. The Bank aims to support countries and other organizations so they can eliminate particular famines. The Bank also

has a role to play in fighting poverty and institutional weaknesses—the root causes of vulnerability to famine. The Bank can help countries recover from such crises, and return to a normal development path. In famine-prone settings, relief and development are two sides of the same coin. The Bank has helped by approving Emergency (Drought) Recovery Projects in Sudan in 1991, an emergency food-related grant to UNICEF for use in Somalia in 1992, a major drought recovery operation in Southern Africa amounting to nearly \$400 million in 1992, and an Emergency (Drought) Recovery Project in Kenya in 1993.

The Bank is analyzing the impact of drought and famine on Africa's human resource and development potential. This analysis, scheduled for completion in 1994, hopes to substantially improve the Bank's response to drought in a number of important ways. Among them are actions to:

- Integrate the impact of drought into the country assistance strategies and project designs of drought-prone countries
- Strengthen the country's capacity to prepare for and mitigate drought

- Move from emergency relief to recovery and development
- Better coordinate Bank activities with UN disaster relief operations
- Design projects better able to cope with and adapt to the onset of droughts, building on the Bank's recent experience in Southern Africa
- Use more flexible lending instruments to deal with the multiple needs for foreign exchange as droughts materialize.

The Bank will also encourage governments to adopt policies to stabilize prices and food supplies by building up financial or physical reserves, or through imports. By stabilizing prices, governments can reduce speculation and keep food prices within the reach of the poor. Kenya did this in 1984 when it imported food just before domestic supplies were exhausted. By contrast, uncertainty about future food supply (both harvests and imports) in Bangladesh during the 1974 famine led to sky-rocketing rice prices and a collapse in the food purchasing power of poor people. Mass starvation resulted. The worst period of starvation actually preceded the threatened decline in aggregate food availability. On the other hand, Botswana was able to

Box 15. Drought relief in Africa: food interventions in Botswana

Like many other African countries, Botswana had to cope with episodes of severe drought in the 1980s. Unlike some other countries (Ethiopia, Mozambique, Sudan), it has succeeded, through appropriate policies, in avoiding the worst effects of famine.

During the 1979–80 drought, relief in Botswana relied almost entirely on transporting food aid into famine-affected areas and distributing it to the destitute. Because of logistical difficulties, this approach was unsuccessful. Beginning in 1981 Botswana implemented a broad, integrated program for drought relief and recovery that combines food supply management, employment generation, and agricultural assistance.

Effective food supply management lies at the core of the pro-

gram. Botswana received large amounts of food aid in 1982–87, but its relief efforts did not depend on the timely arrival of these supplies. Large-scale imports of food from South Africa were combined with support for rural incomes through public works and grants. Private traders and retailers were used to distribute food. Food prices remained broadly uniform across the country during the drought period.

"Take-home" rations were distributed to all households that contained children under 10, pregnant and lactating women, and destitutes. The government set up a special trucking operation to supply maize to remote areas. Over one-third of the population received free rations during the drought. Intensive feeding was

provided for malnourished children at health facilities, and a feeding program for primary school children was maintained throughout. Health measures, including efforts to provide a clean and dependable supply of water, were also important.

Despite large decreases in domestic food production, the program was effective: the percentage of children who were undernourished had fallen in 1986 to less than predrought levels. There were no deaths from starvation. During the 1991–93 Southern African drought Botswana used similar tools to prevent the drought from creating a famine.

Source: World Development Report 1993 (World Bank 1993c).

avert tragedy by importing food from South Africa and supporting rural incomes through public works and grants (see box 15).

A major source of vulnerability is the volatility of international food prices, as with the world food crises of the early 1970s. The Bank, in conjunction with the IMF Food Facility, the WFP, and others, can assist countries in designing cost-effective strategies and financing arrangements for food emergencies caused by international price increases and droughts.

Interventions to Improve the Incomes of the Poor and Hungry

Achieving broad-based growth, regardless of the level of structural adjustment involved, requires specific policies and programs attuned to two broad tasks. First, economywide and sectoral policies must encourage employment-intensive rural development and urban employment. Experience indicates that this requires moderate taxation of agriculture and relatively undistorted product and factor markets.

Second, specific policies and targeted programs must improve the poor's participation in growth and reduce hunger. The poor need increased access to primary education, credit, land, public infrastructure, and services. Technical change must be accessible to small farmers and the urban poor. The specific programs should emerge from country poverty strategies. Areas where the Bank has been successful in the past have taken place in a wide variety of settings. Land transfers can reduce poverty, especially where land distribution is highly unequal. Other policies to increase and secure access to land, especially for women, can also reduce poverty. Subsidized credit programs have failed to reach the poor, but approaches such as group lending offer promising alternatives. Flexible programs that involve the intended beneficiaries, build institutions, employ NGOs and local groups, and respond to local needs are the best way to mold infrastructure, services, and technology to the needs of local communities and the poor.

Resource-poor regions, where poverty and environmental degradation are interrelated, require a different approach. Since the potential for growth in these regions is limited and the pop-

ulation is increasing, policies that facilitate out-migration are essential. But in many of these regions additional programs requiring government subsidies will still be necessary to meet basic needs, maintain yields, preserve natural resources, and generate employment.

Education

The role of education for both boys and girls has been stressed several times in this report. Education accelerates growth and earning potential. It has direct impact on hunger since it imparts health and nutrition information. It reduces fertility rates and therefore lowers the high dependency levels common among poor households. Yet it remains insufficiently targeted to the poor, especially poor girls, in many countries. The main problem remains access to preprimary and primary education, which increase cognitive skills and earning capacities more cost-effectively than secondary and higher education.

Urban Informal Sector Employment

Cities in developing countries are growing rapidly. The influx of rural residents in search of employment and improved living conditions continues. Even where economic growth is strong, many cities simply cannot provide formal sector employment for all the migrants, and urban unemployment is unusually high. One often overlooked solution is to encourage informal sector employment growth. Informal employment includes street vending, shoeshining, lottery ticket sales, street-corner repairs, and small-scale retailing and manufacturing.

These activities are sometimes held in low regard by policymakers in developing countries. Many policymakers believe the informal sector is unproductive. Local business elites often oppose informal sector activities because they compete directly with their own businesses. Cities often outlaw vending near churches, government buildings, and central squares. They also require excessive licenses and tax payments, as in Cali, Colombia. As in most Latin American cities, the street traders of Cali are closely regulated by municipal and departmental authorities. Several hundred pages of municipal and police regulations specify the conditions for street trading.

Street traders must carry identification cards and other official documents. Most also must obtain municipal trading licenses and health permits.

Informal sector activities are not negative. The informal sector can contribute to increases in income and food intake in several ways. Informal sector workers are important distribution channels for goods. They play a key role in solid waste recycling. Informal sector workers build skills that may lead them into the formal sector. Children, for example, contribute to household earnings through jobs, and with age may become employees of construction firms. For poor women, the informal sector can provide alternatives to prostitution.

Informal sector jobs should not be scoffed at. In many cases, workers in the informal sector do as well as or better than those with formal jobs. Vendors in Lima, Peru, enjoy incomes 38 percent higher than the legal minimum wage. Food vendors in Bangkok made three times the minimum wage. Average incomes in the informal sector are often depressed by disproportionate numbers of apprentices and other trainees. Average wage comparisons should adjust for this, but generally do not.

The Bank encourages developing countries to strengthen the informal sector as a means of promoting growth and reducing unemployment and hunger. Restrictions on the informal sector should be avoided, if not eliminated. Governments should provide crime-free space, improve land rights, and reduce public administration, regulation, and taxation constraints on the informal sector. Education and programs to help entrepreneurs can also be useful.

Credit for the Poor

The poor, especially poor women, are generally excluded from formal finance, both as borrowers and savers. Private banks exclude the poor because small transactions are unprofitable. What counts for the poor more than low interest rates is access to interest-bearing savings and timely small loans. Even if they have to pay interest rates above the market rates faced by larger borrowers, the poor are often much better-off compared with borrowing in the informal market.

Providing financial services to the poor and women is not easy, as numerous failed programs

show. Bank-supported agricultural credit programs have usually failed to reach those groups, despite considerable effort. Many borrowers are not creditworthy and do not have profitable projects. Instead, successful programs work with individuals or groups on a long-term basis. Successful programs emphasize savings, credit discipline, and trust. Many of the successful programs have found that women—the borrowers most often discriminated against—are capable entrepreneurs with profitable, small-scale projects and surprisingly low loan delinquency rates. Small-scale credit is therefore a particularly effective way to reach women and help them to increase income and their children's calorie intake.

Group-based lending for microenterprises is most appropriate in areas with high population density, landlessness, and a thriving semi-urban or rural nonfarm economy. In some countries group-based lending is being tested in urban settings. Such credit is not effective in sparsely populated or risky agroclimate zones, such as the semi-arid tropics.

In recent years, few local initiatives have succeeded as well as the Grameen Bank of Bangladesh. Beginning in one village in 1976 as an action-research project conducted by Professor Mohammed Yunus, Grameen Bank has grown to more than 1.4 million borrowers. It extends over \$14 million in loans every month, with an average size of \$75. It had an outstanding portfolio of \$113 million at the end of 1992, while enjoying a repayment rate of 97 percent. Ninety four percent of Grameen Bank's borrowers are poor, rural women.

Grameen Bank lends to five to eight self-selected persons who have agreed to form a group in which they guarantee to monitor each other. Such group lending helps screen out risky borrowers, and creates peer pressure to monitor and enforce the terms of the loan. Group enforcement substitutes for collateral, which most poor people lack. The group is organized and trained by Grameen Bank workers.

Independent research (Khandker, Khalily, and Khan 1993) has documented Grameen Bank's significant impact on its members. Compared to nonparticipant control groups, Grameen Bank borrower incomes rose by more than 50 percent, and per capita food and nutrient intake by 9 per-

cent. Expenditures on clothing, health, and education rose by 18 percent. Employment, particularly of women, rose by 36 percent, compared with only 18 percent in villages without Grameen Bank branches.

The Grameen Bank model has been successfully replicated in pilot programs in other developing countries. A Grameen Trust was recently established in Dhaka with the objective of promoting Grameen replicators outside Bangladesh. The oldest replicator is Amanah Ikhtiar Malaysia (AIM) in Malaysia, which currently has more than 19,000 borrowers. AIM is adding 1,000 new borrowers a month, while maintaining a repayment rate of more than 99 percent. Some of the AIM's staff were trained at Grameen Bank in Bangladesh. Other similar programs include Project Dunganon (Philippines), Savedred (Sri Lanka), and the Mudzi Fund (Malawi).

The family of Grameen Bank replicators is by no means the only initiative of this type. For example, the Foundation for International Community Assistance (FINCA) has helped establish a network of more than 1,800 village banks in Latin America and Africa that provide small loans to self-employed borrowers, including many women. Last year these banks processed 2 million loan payments, with an average repayment rate of 97 percent.

In Bolivia, Thailand, and West Africa the Freedom from Hunger organizations are pioneering a system of credit with education, also using the village banking approach. Loans are provided to small, self-managed associations, with field staff providing advice on health, nutrition, and microenterprise management. In Pakistan the Aga Khan Rural Support Program also combines credit with training to reach women in the poorest villages. In Indonesia the International Fund for Agricultural Development (IFAD) has funded a rural credit program to assist poor farmers and landless workers in 2,000 villages, also based on self-management principles.

Within the context of overall financial sector reform, the Bank will provide increased attention to programs that make formal financial services available to the rural and urban poor, particularly women. Since Bank-assisted programs have rarely been as successful as programs designed and managed by NGOs and community groups, the Bank is willing to directly support NGO and

community group efforts to spread such programs. The Bank announced at the conference that it would join donors and other partners in exploring programs that address the credit and savings needs of the self-employed poor. As a first step, the Bank will begin consultations with other donors regarding long-term support and funding for microcredit programs. The Bank also will commit \$2 million in 1994 to assist Grameen Bank replicators in countries other than Bangladesh.

Credit extended by the Grameen Bank and similar programs works well in many places. However, there are many regions where it cannot make much of a dent. Credit presupposes economic growth. If an economy is growing, people borrow money and are able to pay off the principal and interest with increased income. With increased income, they are able to save, purchase equipment, and generally reinvest their profits. If there is no economic growth, however, the only way to increase income and pay off the loan is by taking business away from competitors. Established small entrepreneurs may be hit hard as a result, and hunger and poverty may simply be shifted around. Banks are likely to lend only to the most financially healthy farmers and enterprises in poor economic environments.

Food Security in Resource-Poor Areas

An increasing number of poor people live in environmentally fragile areas with little agroclimatic potential, such as the Loess Plateau in China, the highlands of Bolivia and Nepal, the African Sahel, and the semi-arid tropics. These regions need a special development strategy for three reasons. First, their growth potential is limited, and approaches based on intensive agriculture or credit are unlikely to succeed. Second, they are increasingly occupied by poor people with the fewest skills and the least access to infrastructure and supplies. Third, environmental degradation in these regions adversely affects both the immediate area and regions downstream or downhill.

The causes of these growing pressures on natural resources are complex and interconnected. In many countries poor farmers are being marginalized and pushed to frontier areas. In addition, population growth and the commercialization of agriculture have forced farmers

who once relied on environmentally sustainable cultivation to use their land more intensively. Where land and climate are good, this poses little threat. But the intensification of traditional farming methods, such as slash-and-burn agriculture, has damaged the productivity of many marginal soils and areas. Overgrazing, mismanaged irrigation, and an ever-widening search for fuelwood often accelerate the decline. Policies that discriminate against smallholders in granting access to land and forests make matters even worse. For example, land policies have directed population movement away from the most productive land by giving a few large estates preferential access, as in Southern Africa, or by limiting migration, as in Tanzania. Resource degradation is not the only possible outcome. When policies and market opportunities for smallholders are less discriminatory, the rural population improves the sustainability of the resource base over time, as

recent research on the Machakos district shows (box 16).

Providing massive infrastructure to develop resource-poor regions may be neither cost-effective nor viable. A better strategy would start with investment in education and training to spur outmigration to areas of better potential. Spending to meet basic needs such as health care and drinking water also will be required. Outmigration would be most effective in countries where labor demand is growing strongly in other regions.

Experience, however, shows that migration is only a partial solution. Growth in areas of greater potential is often not high enough; many resource-poor regions have rising populations despite outmigration. Additional programs will therefore be necessary. These programs will involve training poor farmers in better techniques for farming, animal husbandry, and soil and moisture conservation, increasing the opportuni-

Box 16. Land resource degradation is not inevitable: Machakos, Kenya

Increasing population growth and agricultural intensification in a low-income area do not have to be accompanied by land resource degradation, and land resource management cannot be divorced from the overall development process. These are two of the principal conclusions of a recently concluded study of land resource management in the Machakos district of Kenya covering a sixty-year period from 1930 to 1990.

Other conclusions of the study, conducted by a team led by the Overseas Development Institute (ODI) of London under the supervision of the Bank's Environment Department, include: market outlets are important to providing a wide range of economically and technically viable land-use options which permit the user to devise an overall sustainable system and to modify it under changing economic and social conditions; this process is an integral part of the process of agricultural innovation; land resource management innovations come from multiple sources and their introduction is enhanced

by strong links between a local society with a broad, development-oriented leadership structure; and nonagricultural and urban growth support the above processes by reducing the share of the society that relies on the land resource for its livelihood and increasing the options open to those who choose to do so, by creating demand for the products of land.

Agricultural conditions are poor in the Machakos district. The area is semi-arid, with annual rainfall of 600–1,000 millimeters, divided into two wet seasons. Few of the soils are classified as good. In the late 1930s the district was considered by the colonial administration to be degrading alarmingly and to be rapidly approaching, if not exceeding, its capacity to support its inhabitants and their livestock. Today the area has a population five times as great and the value of agricultural output per capita (at constant prices) is estimated to be three times larger than it was then.

The cultivated area has expanded by four times and there

has been a corresponding reduction in the area of general grazing, bush, and scrub. Much of the land used is now under continuous cultivation, and almost all of the cultivated area is in some form of terracing. The rate of erosion has been sharply reduced, though it does still occur, and there is no evidence to suggest that the quality of soils is declining under current practices.

The farmers of Machakos have made a large investment in their land resources. This has been achieved without significant use of credit in any formal sense. Cash earned from off-farm work and from the sales of farm products appears to have supported the use of families' own labor (or labor mobilized through groups). Since the 1950s an ongoing process of agricultural innovation and change has also taken place in the district. Major changes have occurred in the structure of the society. Women have taken a more active role and this has influenced family roles, including traditional agricultural tasks.

Box 17. Environmental management project in Burkina Faso

The natural resource endowment of Burkina Faso is unusually harsh. With population increasing at an annual rate of 2.6 percent in the 1980s, the poor's resources are coming under increasing stress.

In the late 1970s the better-endowed but disease-prone southwest was opened up to rapid settlement by the eradication of river blindness. At the same time, emigration to the better-endowed Côte d'Ivoire was an attractive option available to and exercised by many young Burkinabe. As these options began to close in the mid-1980s, labor became increasingly abundant relative to land. Land improvement practices were rapidly adopted by individual farm enterprises. This process was aided by effective research and extension. But it became apparent that some practices could not be implemented by individual enter-

prises alone. To reap the full benefits, collaboration between enterprises was necessary.

The Environmental Management Project was designed on the basis of about twenty pilot operations undertaken in the preceding five years to test ways of enabling and obtaining collaboration between enterprises. The outcome was *l'approche terroir*—community land management planning and implementation based on a social unit (the community's *terroir*) rather than a physical unit such as a watershed. The project, cofinanced with France, Germany, and Norway, became effective in February 1992 after a ten-month delay occasioned by the proviso that the land tenure law of 1984 be amended. That law had nationalized rural land and, though never effectively implemented, had cre-

ated uncertainties that rendered land improvement works risky.

The project is the first phase of a long-term program to reverse natural resource degradation through participatory and holistic community land management planning and implementation. The first such plans are now being finalized. The plans include specific land improvement works, land husbandry practices to be adopted, and land-use rules governing access to common assets such as pasture, forests, and water. Works such as check dams or dikes and shelter belts will be funded by the project as a grant, with the community contributing the unskilled labor. Formulation of these plans is an unavoidably slow process: blueprints are of no use since site-specificity is an essential ingredient of ownership.

ties for diversification and off-farm employment, and providing local user groups (such as the village forestry associations in Korea and the rangeland management associations in Botswana) with rights to manage degraded communal lands. A recent example is the community-based resource management project in Burkina Faso (box 17).

In many of these areas, farmers can adopt low-cost, low-input technologies that would increase and stabilize yields, diversify production, and maintain the resource base. One such technology, contour cultivation, has raised yields substantially—by 6 percent to 66 percent—on slopes of up to 32 percent. When contour cultivation is supported by a vegetative barrier—vetiver grass, for example—the benefits are even greater. Vetiver grass has been used for many years in the Caribbean, Kenya, and South Asia. It holds soil while allowing for water filtration. It is cheap to establish, manage, and maintain. In some regions more substantial interventions will be required. Programs that target only a few households or villages cannot prevent soil erosion. In China, for example, the government started research to improve erosion

control and agricultural production in the Loess Plateau, a 630,000 square kilometer area in the northwest. By constructing new terraces, eliminating uncontrolled grazing, and constructing soil dams to create cultivable flatlands, China increased per capita grain production more than 30 percent.

Special attention also needs to be given to community-based forestry management in resource-poor areas, both to provide a source of income and to ensure the sustainability of forests. The Bank supports investments in social and participatory forestry for three reasons. First, government policing and centralized control of forests have been ineffective in reducing degradation. Second, forest dwellers are poor, and forestry programs must address their needs. Finally, people are more likely to manage forests when their interests in the forests (income, tenure, culture) are protected. Bank investment in social forestry programs increased from about 15 percent of total forestry lending during 1967–80 to more than 65 percent during 1980–92.

Project evaluations indicate that Bank-supported investments in such programs are

economically viable and environmentally sustainable (the number of trees planted and maintained were higher than in reforestation sites in more than half of thirty-five projects reviewed since 1985). While there are no direct measurements of changes in the income of resident populations derived from forestry, these programs provide effective mechanisms to distribute benefits from the forestry project. Three types of built-in mechanisms for income flows to local residents have been used since 1985. The first income-sharing mechanism is investment bonuses in the form of cash incentives for private tree planting in smallholders' woodlots. In Malawi (1986) these bonuses included credit for fertilizers and other inputs. More farms planted crops underneath tree shades, thereby expanding household income.

Collective benefits are a second type of income-sharing program. In these programs, district and community groups retain a percentage of income from government-financed forest plantations and reforestation areas. These proved worthwhile in China (1990) and Mexico (1990), where forests were maintained by local groups. Incomes also improved from sale of nontimber forest products.

The third mechanism, agroforestry zoning, supports farm forestry around production and protection forests (such as in Algeria in 1992, Côte d'Ivoire in 1990, India in 1985, Nepal in 1991, and Nigeria in 1987). Beneficiaries are given access to the forests. The sale of forest products supplements agroforestry incomes. In Côte d'Ivoire (1990) agroforestry zones also serve as buffers for nearby large-scale forest plantations. Local residents earn additional income as hired laborers in the plantation. A similar approach was used in contractual watershed management in Algeria (1992). Assemblies of local groups and municipal officials are paid by the government to protect the area from migrant encroachment. This protection fee is collectively managed by assemblies that finance marketing of nontimber forest products such as gum, fruits, and fuelwood.

Despite these agricultural and forestry resource management measures, economic activities in resource-poor areas are typically insufficient to provide employment for growing

populations. Outmigration to towns and other rural areas is therefore necessary, as are programs to assist emigrants. Where migration is limited, employment programs should be created. Employment problems are particularly acute for women during the off-season, since they can rarely migrate in search of jobs. Employment problems are also severe during drought years. Employment schemes raise income and improve nutrition. They also maintain and create rural assets such as roads, irrigation, and soil conservation and forestation programs.

Since poor people are willing to work for low wages, public employment programs can offer wages that screen out the nonpoor so that resources can be used more effectively. In two large rural schemes in South Asia—the Maharashtra Employment Guarantee Scheme in India and the Food for Work Program in Bangladesh—the share of participants with incomes below the poverty line was at least 90 percent in the early 1980s. These schemes have attracted people who are often excluded from other programs, such as women and members of scheduled castes in Maharashtra. Many countries in Latin America and Sub-Saharan Africa administer similar programs.

The Employment Guarantee Scheme began in the early 1970s. It provides employment on request, within fifteen days, no more than five kilometers from the participant's home village. An unemployment allowance is paid when this is not possible. About three-quarters of the program's budget is spent on wages. The current scheme provides guaranteed employment year-round. Political commitment to the program is firm, and the effect on employment is significant. In 1984–94, 180 million person-days of employment were provided, representing 3 percent of total rural employment. The Government of India is generalizing the approach to 1,752 poor rural blocks.

Employment programs have also been effective in Sub-Saharan Africa, as recently discussed in an IFPRI (International Food Policy Research Institute) study by von Braun, Teklu, and Webb (1992). The Bank has intensified assistance to communities to improve their critical natural resource management issues. The Bank is also stepping up assistance in the design and finance

of employment programs, where income generation potential is poor.

Land Reform

The specific programs discussed so far help the poor gain income and obtain food. They do not, however, address the poor's lack of productive assets. The rural poor comprise the largest segment of the poor. The key for most of the rural poor is stabilizing and sustaining income by owning land (under community-based or freehold tenure). Land allows the poor to produce food directly, or gives them the rental income to buy it. It also improves their access to credit and integrates them into broader social networks—crucial during droughts and other emergencies. Transferring land from large holdings to small farmers usually increases production and rural growth. In low-wage countries, large farms tend to have lower productivity than small farms and to employ proportionally fewer workers. Land reform can improve the efficiency of agricultural production and help employ more people.

In economies like Iran, Korea, and Taiwan (China), land reform has substantially improved agricultural growth and poverty alleviation. Successful land reforms were precipitated by social revolutions or other major political upheavals, such as decolonization. Failure to reform highly dualistic systems of land ownership has often resulted in peasant uprisings and long civil wars, as in El Salvador, Guatemala, Mozambique, and Nicaragua. In many countries that have attempted land reform, however, the attempts have failed or been very costly. Those attempts were government-administered, with public agencies buying and redistributing the land. Such programs encountered formidable administrative and other problems.

For many years the Bank has recognized the benefits of land reform. As discussed in the 1975 *Land Reform* sector policy paper, the Bank has always been ready to help countries implement land reform (World Bank 1975). Bank assistance to Kenyan land reform in the early 1960s was the largest such effort. But the Bank has been reluctant to become more involved because of the poor performance of land reform agencies in many

countries. And the Bank has frequently been discouraged by the political sensitivities of various governments from involvement in land reform.

Market-assisted land reform is a more promising approach than using land reform agencies and relying on expropriation. Small farmers or farmer groups would be provided with a partial grant and credit to buy the land of their choosing. Since land prices reflect nonfarming benefits or specific privileges, such as tax advantages or credit subsidies commonly acquired by large landowners, the price of land usually exceeds the capitalized value of (unsubsidized) agricultural profits. Beneficiaries are therefore unable to finance land purchases with credit alone, and a substantial grant is necessary. To transfer land to poor beneficiaries in a market-assisted land reform of commercial farms, four conditions have to be met:

1. The privileges and distortions that drive the price of land over the capitalized value of farm profits must be curtailed to reduce the cost of land reform and to prevent subsequent reaggregation of land.
2. Severe macroeconomic instability must be eliminated so that land will no longer have value as an inflation hedge. A long-term mortgage market must emerge in which beneficiaries can finance a part of the land purchase.
3. The poor must be given a partial grant so they can pay for any land price premium over the capitalized value of realizable farm profits and still have a sufficiently low debt-equity ratio to engage in own-account farming without threat of bankruptcy.
4. Beneficiaries must include more than the few remaining commercial farm workers to achieve a sufficient density of family labor on which the superiority of family farms is based.

These preconditions for successful land redistribution are formidable, and warrant caution in planning new programs. In countries with highly uneven land distribution, however, the potential benefits in terms of employment-intensive agricultural growth, social stability, and an improved climate for private investment may be so powerful that market-assisted land reform should be attempted. The Bank has recently reemphasized its commitment to land reform, and will actively encourage countries with highly unequal land

distribution to design market-assisted programs. South Africa is a country where land reform is urgently needed (box 18).

Agricultural Research and Extension

The Bank has always emphasized technology as a primary means for agricultural growth. The Bank advocates extension for smallholders of land, supports national agricultural research, and has been residual grantor to the Consultative Group for International Agricultural Research (CGIAR) for more than twenty years.

Technology and World Food Supply

The diffusion of agricultural technology has resulted in steadily falling food prices and increasing supply, reducing the possibility of Malthus's prediction of mass starvation. (Thomas Malthus predicted in the 19th century that the growth in food supply would be unable to match the number of people needing it, and the poor would be unable to afford food at the sharply rising prices. So far Malthus's theory has not come true because technology has improved faster than food demand.) Even in developing coun-

Box 18. Land reform options in South Africa

In addition to being an emotive political issue in South Africa, the skewed distribution of land—86 percent of agricultural land is owned by large-scale, white farmers—impairs the efficiency of agricultural production. A successful land reform program is essential to increased growth and employment and a smooth transition to majority rule in South Africa. To assist South Africans in a meaningful analysis of land reform options, the Bank summarized international experience with land reform. This summary complemented an analysis of local circumstances by South African experts aimed at developing policy options.

The process began with a workshop for South Africans that identified the lessons of international experience in several areas of agriculture (land reform, resettlement, pricing, and marketing) but refrained from applying these lessons to the South African case. From the workshop emerged an interest in exploring the implications of these lessons for South Africa. Given the difficulty of identifying a local institution that would be widely regarded as neutral or objective, the Bank agreed to design a work program for developing a set of land reform options. The work program relied on teams of South African experts to prepare reports on various aspects of land

reform (legal issues, agricultural policy, technical support systems). A politically representative advisory group was formed to provide advice on the work program in the hope that the group would eventually accept ownership of the program. When the South African teams completed their reports, a Bank team drafted a synthesis report. This report—along with each of the reports prepared by the South African teams—was presented at a workshop on land reform options in South Africa.

The main themes that emerged from this workshop were:

- A market-assisted land redistribution program is likely to perform better than one administered and operated by the public sector.
- The program must be undertaken in a reformed legal framework in which rights of individuals, of groups, and of women are fully protected.
- The role of the public sector is ensuring adequate supplies of land in the market and monitoring the overall operation of the program.
- Criteria for participation are necessary and must be discussed and agreed in advance.
- Welfare objectives can be met by including a grant component in the program.
- A matching grant scheme that

forces participants to use some of their own resources in order to gain access to land will help in self-selection of participants and encourage productive land use.

- The grant elements of the program are essential to redistributing assets and ensuring that beneficiaries emerge from the program with a net increase in their asset position and a low debt-asset ratio as a means of ensuring the viability and sustainability of their enterprises.
- In addition to addressing the fundamental issue of social justice, the program is likely to significantly increase net rural employment.
- A redistribution program will not be able to provide land for everyone—the program will need to be complemented by a rural safety net and by programs for urban groups.
- The program will also be a vehicle for supporting a wide range of land-use activities, including trading and small-scale enterprises.

The study team estimated that the program would create more than one million rural livelihoods at relatively low unit cost and, at the same time, address issues of social justice.

Source: Land and Agriculture Policy Center 1993.

Box 19. A food supply crisis is unlikely—at least for now

Modern day Malthusians warn that Malthus will ultimately be right: the world will run out of food. But for now there is little evidence to support this warning. Since 1980 world cereal yields have grown by 2.25 percent a year; world population has grown by 1.75 percent a year. Cereals account for 60 percent of total calories in developing countries and about half of total cropland used for agriculture. The rapid growth in crop yields has caused cereals prices to fall and area planted to cereals to decline. A number of factors suggest that current surplus production capacity will not be needed soon.

One of the most important changes in the world food situation is the changing patterns of demand in developing countries.

Since diets have improved greatly in many countries, total food demand is growing more slowly than in the past. The world population growth rate is also projected to slow during the next several decades—to 1.0 percent a year by 2025. This would further reduce the growth of food demand and weaken the Malthus's warning.

Other factors are also changing, especially in the formerly centrally planned countries of Eastern Europe and the former Soviet Union. These countries were large food importers during the 1970s and 1980s, but they may become food exporters within a decade. The big change will likely be in consumption. Because of highly subsidized prices, per capita consumption of cereals in these coun-

tries was nearly double that of Western European consumers despite much lower incomes. This is changing, and consumption levels for cereals are expected to decline by 30 to 40 percent. This could free substantial supplies for export. Economic reforms could also stimulate production, causing even larger exports. These changes could cause the region to shift from importing 20 percent of the world's cereals trade to exporting an equal amount in span of twenty years.

These calculations do not mean that agricultural technology can be neglected. Only rapid technical change and sustainable resource use can ensure the needed longer-term food supply, and continued, if not enhanced, research effort is essential.

tries, the green revolution in the 1960s and 1970s led to high growth rates of food production. At the same time, population growth worldwide has slowed markedly (with notable exceptions). A recent Bank study calculates that, with current food demand and technology trends, a worldwide food supply crisis is unlikely in the next two decades (box 19). Even with the catastrophe postponed for two decades, there are hungry people all over the world. Moreover, short-term famines remain a problem for many countries. This reinforces the view that individuals' lack of income to purchase food or resources to produce food are at the root of the hunger problem, not aggregate supplies.

Favorable current trends in worldwide food supply do not warrant reduced support for generation and dissemination of technology. Optimism is only warranted because technology will likely increase at a fast pace. To slow down technology development would sharply increase the risk of food supply problems fifteen years from now. The basic breakthroughs required to achieve food production growth generally take one or two decades to move from discovery to widespread use. For this reason alone the Bank advocates greater donor support for the CGIAR

system as a key element in a long-term worldwide food supply strategy.

The Bank itself supports international agricultural research with \$40 million a year in grants and chairs the CGIAR. Even though these grants are an important complement to those made by other donors, the total amounts are too small relative to the role of the CGIAR system in preserving germplasm resources, researching ways to increase yields, addressing environmental resource management issues, and promoting modern biological research for the benefit of developing countries. Consequently, the CGIAR system is facing a funding crisis. This crisis will require major attention by the Bank and other donors.

Access of the Poor to Improved Technology

Technology affects both worldwide aggregate food supply and the world's poor populations, who are mainly rural. Improved technology is critical to poor countries. Their ability to derive income from their agricultural resources depends on their relative international competitiveness in agricultural production. Competitiveness in agriculture generates export revenues, which can be

used to buy food imports. Trading agricultural commodities for food generally helps the poor by enhancing rural incomes and the ability to buy food. An example is the Dominican Republic, which exports high-value tropical fruits and vegetables and imports staple foods.

About 80 percent of aggregate agricultural research expenditure in developing countries is concentrated in twenty relatively large Asian and Latin American countries (50 percent in just four countries). Developing countries more than doubled their real aggregate expenditure on agricultural research between 1970 and 1980, but expenditure levels have stagnated since then. The World Bank is lending to many countries in support of their national agricultural research systems (NARS). The performance of many of these systems has deteriorated in recent years. This is partly because they have suffered from inadequate compensation to retain their best staff and partly because they have cut operating budgets. Even with the limitations of existing support systems, public national agricultural research programs can generate high economic payoffs. This suggests many countries are underinvesting in agricultural research.

To be effective, agricultural research must be complemented with effective agricultural extension and efficient marketing and input supply services. In most countries research and extension systems need to be better-integrated, including farming system research and research outreach using participatory techniques. In some countries there are now private practitioners of agricultural extension. Beyond salesmen of seeds, fertilizers, chemicals, and machinery, these practitioners are active in the broader field of farm management, often in intensive livestock or horticultural activities. Public extension should not duplicate the work of such private practitioners. Instead, public extension should focus on small-farmer development and natural resources management. Priority should be given to poor farmers. Where regular, face-to-face contact is the delivery method, sound managerial principles must be applied to effectively train and supervise a scattered workforce and make it responsive to the farming clientele.

While rich and middle-income farmers will usually benefit first from new technology, agri-

cultural extension programs can successfully target smaller farmers, many of whom are women, enabling them to remain competitive and participate in agricultural growth. Much of Chinese agriculture has grown at 7 to 10 percent a year over the past 15 years, when average farm sizes were less than half a hectare. This is partly due to excellent extension services provided by former communes and partly due to excellent technical and human resource bases.

The Bank is the largest donor for agricultural extension in developing countries. During the past three decades the Bank lent about \$2.5 billion for extension, more than all other donors combined. The Bank supports extension through investment projects, either free-standing or as extension components in agricultural projects. Except for a few commodity-based extension projects, virtually all the Bank's support for free-standing extension projects uses the training and visit (T&V) model. This model emphasizes regular, face-to-face contact between well-trained agricultural professionals and farmers.

Such programs have been highly successful. For example, an evaluation of a program in Burkina Faso found that the introduction of T&V programs has increased the adoption of improved practices. Farmers belonging to T&V contact groups have seen their crop yields increase by 25 to 30 percent. The rates of return estimated for investments in the expansion of the current T&V extension system range from 86 to 187 percent in Burkina Faso. The evaluation also showed that the average annual expenditure on extension per farm family declined by almost 30 percent after T&V programs were adopted at the national level. The Bank will continue to provide strong support to small farmer extension.

World Bank Actions

The World Bank's strategy to reduce poverty and hunger has been developed and refined over many years. This strategy forms the core of the Bank's development mission. Country poverty assessments provide an integrating framework to plan and implement Bank support to reduce poverty and hunger in each country. Programs in support of human resource development are becoming ever more important in the Bank's

lending portfolio. Moreover, food security projects and operations focusing directly on nutrition also are increasing. Experience on making Bank-supported programs complementary with drought avoidance and famine prevention is accumulating, especially in Sub-Saharan Africa. Experience on strengthening the income-earning opportunities of the poor is being widely disseminated and integrated into various sectoral projects. Collaboration with development NGOs and community groups in poverty projects is expanding.

While many of the social and human resource development programs assisted by the Bank have become better-targeted to the poor, there has been little progress over the past decade in reorienting social and human resource development expenditures in the developing world from the better-off to the poor and hungry. This is despite the considerable emphasis placed on this issue by the Bank in poverty profiles, public expenditure reviews, policy dialogue, and loan negotiations. Progress will depend partly on greater public awareness of options available to governments in the allocation of public expenditure.

The poverty profiles prepared by Bank staff, with local participation where possible, provide an important opportunity to analyze hunger in its three forms, and to consider the policies and programs required to overcome hunger. Training task managers, staff, and consultants involved in poverty assessment work will help improve the quality of their work.

World Development Report 1993: Investing in Health, identified a number of effective, low-cost actions which in many countries could sharply reduce hunger even in the absence of rapid growth. The challenge now is for the Bank to work with countries and other agencies to implement these actions as fully and as promptly as possible. Efforts will continue to disseminate the report's findings on micronutrient supplementation, vaccination, and prevention of intestinal parasites both inside and outside the Bank. Implementation of these programs, and possible financing within Bank projects in member countries, merit high priority.

Experience inside and outside the Bank has shown the effectiveness of programs that identify

the malnourished through nutrition monitoring and provide synergistic primary health care, food supplementation, and health and nutrition education. Such programs greatly reduce infant mortality and hunger and improve the health and nutrition of poor populations. Shifting fiscal resources from poorly-targeted food subsidy programs to the provision of food entitlements for the entire families of the children or mothers identified as malnourished in such programs is a high priority. These findings require greater dissemination inside and outside the Bank. The financing of food for primary health care and the expansion of services that allow more widespread food availability can come from the reallocation of food subsidies to these combined programs. In the Bank the operational responsibility for food production and subsidy issues is usually in the agriculture divisions, while that for health and nutrition is usually in the human resource divisions. Close cooperation between the divisions and disciplines is required to achieve the integration of these programs in a cost-effective and fiscally responsible way.

The Bank's own efforts to assist governments in the provision of microcredit have been less successful than some NGO or community-group-managed programs such as the Grameen Bank. The Bank needs to learn from the successful programs which approaches can be effectively exploited in Bank-assisted projects, and explore ways to extend wholesale credit in collaboration with such intermediaries.

The pursuit of market-assisted land reform in countries with highly unequal land distribution is both an opportunity and a challenge. Land reform is never easy. Using a market-based approach presents issues which must be addressed according to the specific circumstances of each country.

The other approaches to strengthening the income-earnings capacities of the poor have been discussed and widely disseminated in *World Development Reports*, the *Poverty Reduction Handbook*, and other Bank plans. They are associated with specific sectors and best addressed within sector lending operations.

The funding pressures on the CGIAR are increasing; indeed they are assuming crisis proportions as some major donors have reduced

support. The Bank will take the lead in restructuring the system and devising a new funding strategy.

Finally, there is a shared desire to visibly reduce hunger in poor countries. The Bank is

participating in a few pilot tripartite in-country consultations as a forum to exchange views among governments, NGOs, and the Bank on specific country policies and actions to reduce hunger.

Notes

1. See *Overcoming Global Hunger: Proceedings of a Conference on Actions to Reduce Hunger Worldwide*. ESD Proceedings Series no. 3. Ismail Serageldin and Pierre Landell-Mills, eds. (Washington, D.C.: World Bank, 1994).

2. Terminological confusions abound. "Hunger" as used in this report is sometimes called "malnutrition," but the latter term is often limited to chronic undernutrition and specific nutrient deficiencies.

3. Community groups include neighborhood committees, women's groups, farmers associations, and the like.

4. Goals were to achieve, by 2000, virtual elimination of vitamin A and iodine deficiencies, a reduction of anemia among women of reproductive age by one-third of 1990 levels, and a reduction of severe and moderate malnutrition among children under age 5 by one-half of 1990 levels.

5. The countries are Argentina, Bolivia, Brazil, Chile, Costa Rica, Dominican Republic, El Salvador, Jamaica, and Venezuela.

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