Rural Development
strategy

From Action to Impact: the Africa Region's Rural Strategy

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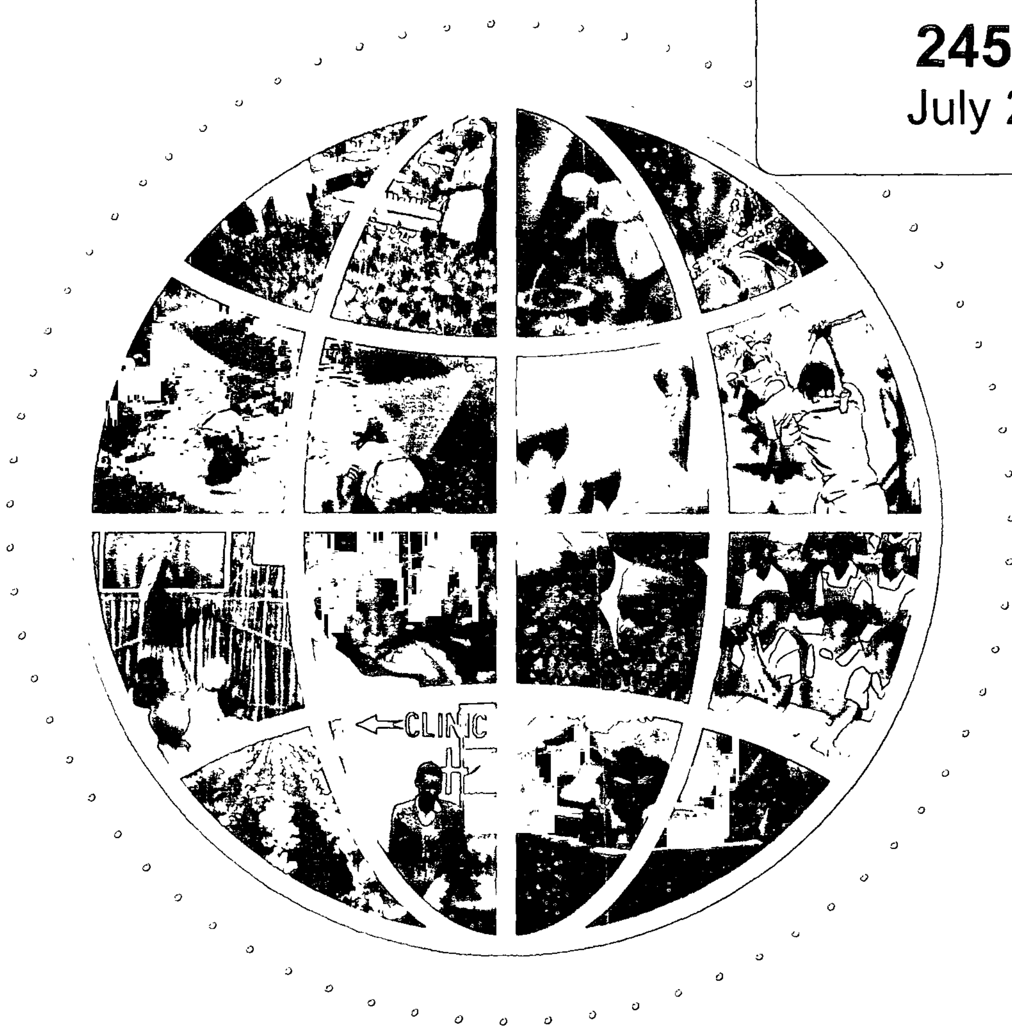

Rural Development Operations, the Africa Region

Rural Development Strategy
Regional Development Strategy

From Action to Impact

The Africa Region's Rural Strategy

Rural Development Operations, the Africa Region

Work in Progress

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This paper reflects contributions from staff of the Africa Region of the World Bank, participants in two workshops held in Africa, and many colleagues within and outside the World Bank who commented on earlier drafts. The task was managed initially by Sushma Ganguly, Rural Development Operations, and subsequently by Karen Brooks, under the overall guidance of Hans Binswanger. Other departments within the Africa region contributed ten papers from which material was abstracted. Contributions region-wide were coordinated by the Africa Regional Strategy Steering Committee and the Extended Steering Committee. Regional discussions in Nairobi in March 2001 and in Dakar in May 2001 provided the views of selected African stakeholders from the public, private, and NGO sectors. Support for regional consultations was provided by DFID and by French Cooperation. Wendy S. Ayers served as the lead writer, and she and Karen Brooks compiled the paper. Discussants and peer reviewers commented on several drafts. Karen Brooks edited the final draft.

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Abbreviations and Acronyms

AIDS	Acquired Immune Deficiency Syndrome
CBO	Community Based Organizations
CDD	Community Driven Development
CGIAR	Consultative Group on International Agricultural Research
ESSD	Environmentally and Socially Sustainable Development
FARA	Forum for Agricultural Research in Africa
FAO	Food and Agricultural Organization
GEF	Global Environment Facility
GNP	Gross National Product
HIPC	Highly Indebted Poor Countries
HIV	Human Immunodeficiency Virus
IDA	International Development Association
MAP	Multisectoral AIDS Program
NEPAD	New Partnership for Africa's Development
NGO	Non-Governmental Organization
PRSP	Poverty Reduction Strategy Paper
OECD	Organization of Economic Cooperation and Development
SPAAR	Special Program for African Agricultural Research
WTO	World Trade Organization

Foreword

Africa cannot move forward if rural areas are left behind. An attempt to achieve the Millennium Goals to reduce poverty by 2015 will require a massive effort in rural Africa. The World Bank intends to be a strong partner in this effort. Rural development is at the core of the agenda of poverty reduction in the Africa Region, and is the responsibility of all staff under the overall guidance of the Vice President. The pages that follow outline a strategy for rural development that we will support in programs of assistance to our clients. This report is the contribution of the Africa Region to the preparation of a new World Bank strategy and action plan for rural development.

The Environmentally and Socially Sustainable Development Department of the Africa Region (ESSD) led the formulation of the strategy, but the result is a truly regional product, rather than a narrowly departmental one. The process behind the new articulation of the strategy reflected the multi-sectoral nature of the task, and the importance of our clients' views on the subject. A multi-sectoral steering committee guided the early formulation of the strategy, and identified areas in which background papers were commissioned to address particular sectoral issues and linkages. A summary draft grew out of the background papers, and the steering committee reviewed the draft. The revised draft was taken to consultations with our clients in Eastern and Southern Africa (in Nairobi) and in West Africa (in Dakar). We gratefully acknowledge financial assistance from French Cooperation and from the UK Department for International Development in support of the regional consultations. Views of clients and many other reviewers within and outside the World Bank were incorporated in subsequent drafts. The Africa Region's Regional Leadership Team reviewed and endorsed the strategy in October, 2001. The final version presented below reflects the contributions of the entire region, and also expresses the shared commitment to move forward together to implement the strategy.

The new articulation of the rural strategy is timely for Africa. African leaders increasingly express a renewed commitment to agriculture and rural development in various fora (e.g., domestic discussions of their own poverty reduction strategies, regional consultations under the New Partnership for Africa's Development (NEPAD), preparations for the World Summit on Sustainable Development to be held in Johannesburg, South Africa, in August and September, 2002, and others). Although the performance of African agriculture in the 1990s improved, relative to the 1980s, the improvement was not great enough or shared widely enough to meet the very demanding goals for poverty reduction in the coming decades. African leaders will pursue more intensive efforts in the years ahead, and we will assist. The efforts can lead to the kind of rapid and widely shared growth that has benefited rural people elsewhere in the world in recent decades, notably in India and China, but has thus far eluded much of Africa. Africa's rural people can succeed with results that can improve their own well-being and preserve resources of continental and global significance.

Callisto Madavo Vice President Africa Region	Ian Johnson Vice President Environmentally and Socially Sustainable Development Network

Executive Summary

Several changes within the African continent and globally provide a motivation for a new articulation of the World Bank's strategy to assist rural Africans better to manage their own development. The commitment of governments to time-bound targets to reduce poverty has brought renewed attention to rural people and to agriculture, since most of Africa's poor are engaged in farming. After a decline in attention to rural issues and a reduction in support to agriculture during the 1990s, African governments now seek a more proactive program of public and private investment to facilitate rural growth. At the global level, the new round of WTO negotiations may bring more opportunities for African agricultural producers than did the prior one. Focused efforts to improve competitiveness and productivity of agriculture will position African countries to benefit from new opportunities.

The strategy presented below recognizes that in much of rural Africa improved performance of agriculture will lead to poverty reduction. At the same time, agricultural productivity can increase only where rural institutions are strengthened, growth is widely shared, natural resources are well managed, and rural risks are reduced or shared. The strategy therefore rests on four pillars:

- Making governments and institutions work better for the rural poor.
- Promoting widely-shared growth.
- Enhancing management of natural resources.
- Reducing risk and vulnerability.

The strategy emphasizes community participation, strengthening of voluntary producer organizations, primacy of the private sector in production and trade, a stronger role for markets, enhanced activity of local governments and private firms in provision of public services, and transparency and accountability in the use of public funds. The strategy is not new, and major elements were articulated in the 1997 *Rural Development: Vision to Action* document. The present paper newly articulates the strategy in concepts and actions consonant with the lessons of the 1980s and 1990s.

Implementation of the strategy is the responsibility of the entire Africa Region of the World Bank, and not just the ESSD family. Similarly, the instruments for implementation of the strategy consist of the entire portfolio of projects and analytical work of the region, and not just the tasks formally assigned to the ESSD units. The Africa Region is taking a number of steps more sharply to focus its programs on poverty, which implies a shift toward rural priorities. The region is assisting clients in developing poverty reduction strategies (PRSP), and is aligning country assistance strategies to facilitate implementation of the PRSPs. The Region is streamlining the portfolio and focusing the smaller number of projects more strategically to reduce poverty. The Region has drawn on its experience in addressing the HIV/AIDS crisis, and is applying the lessons to other areas. For example, Multi-country AIDS Program (MAP) operations offer a model that is being generalized to support agricultural research and the adoption of agricultural technology by small-holders. As the portfolio evolves, projects financing transactions to support development are gradually being replaced by programs financing systems to support development. For example, traditional social funds implemented outside of governmental structures are evolving into programs to support the architecture of decentralization and to transfer resources to communities either through local governments, or in consultation with the planning efforts of local governments.

The Region's operations increasingly fall into four broad categories of instruments: budget support through poverty reduction strategy credits and sector-wide programs; capacity building programs;

operations that transfer resources to communities, such as community driven development programs (CDD); and stand-alone projects, for major investments in infrastructure, or for focused programs spanning multiple types of instruments, such as the HIV/AIDS MAP and the new instrument to support agricultural research and the adoption of technology. During the process of planning the country assistance strategy, the staff in ESSD identify key interventions needed to address the four pillars of rural development noted above. These interventions are then packaged into the most appropriate instruments, many of which will be multi-sectoral in nature. Interventions that do not fit well into multi-sectoral operations can be pursued as stand-alone projects. Thus, staff need to have general familiarity with the major types of operations, and technical skills to address key issues within them. With each type of instrument, systematic efforts are made to expand successful approaches to achieve impact on a regional or national scale.

The Africa Region is decentralizing functions to the country offices, and increasing the number of locally and internationally hired staff in the country offices. The rural family at present has a larger proportion of staff in country offices than other families in the Region, and with additional training and mentoring, it can decentralize more functions to the country offices.

The Africa Region has a strong partnership with the Food and Agricultural Organization in areas such as low-cost water control and land management, soil fertility enhancement, crop intensification and diversification, integrated pest management, statistics, policy analysis and capacity building. Similarly, the Bank has a long-standing partnership in Africa with IFAD and other multilateral organizations. The Bank is strengthening cooperation with the African Development Bank in priority areas, including agriculture and rural development and HIV/AIDS. It is contributing to the multi-donor hub for rural development covering the countries of the Southern Africa Development Community, which was launched in Harare during FY00. It is working with other donors to establish a similar facility in support of food security in the Horn of Africa. Discussions are underway to establish a third multi-donor hub located in West Africa.

The implementation of the strategy has important implications for the future work program of the ESSD family. Much of the work will be multi-sectoral. Poverty Reduction Strategy Credits will, for the near future, be the primary vehicle through which the Bank supports continued progress on policy and regulatory reform, matched with budgetary resources for implementation. The agenda of agricultural policy reform remains large, and we will pursue this largely by contributing sectoral perspectives to PRSC operations. Much of the agenda to improve agricultural competitiveness through better functioning of the private sector will come under the interventions to support capacity building; e.g., in wholesale and retail trade, rural financial institutions, improved functions of national governments (such as statistical reporting and market information), and improved capacity of local governments to provide services. Major infrastructure operations may be identified with the participation of rural staff, but are likely to be carried forward largely by staff in the infrastructure units.

In addition to contributing to and leading some of the joint activities noted above, staff in the ESSD family will have primary responsibility for operations to support growth in agricultural productivity. This support would be through the generation and adoption of improved technology, the transfer of resources to rural communities through operations supporting community driven development with matching grants for a broad menu of activities, and additional work in natural resource management (land, water, and forests).

This strategy is applicable to the entire Region. We do not envisage a selection of particular focus countries, but countries that are considered to be well-performing, have large rural populations, and seek additional support to rural development will be those in which efforts will be concentrated.

The strategy seeks to have an impact that is national and continental in scope. The test of the success or failure of this approach will be seen in the indicators of rural poverty in our client countries, rather than in indicators of the sectoral composition of the Bank's portfolio as traditionally measured. Countries that are designing Poverty Reduction Strategies within the HIPC framework are also adopting measurable indicators to track the impact of the programs. The PRSP process will thus lead to better statistical reporting on correlates of poverty. The staff of ESSD will participate in the process to assure that the indicators chosen appropriately capture rural dimensions of poverty. In addition to the statistical tracking under the PRSP process, the ESSD staff will substantially improve monitoring and evaluation of the impact of programs and projects financed with our support, whether in HIPC countries or others. Efforts to improve monitoring and evaluation will serve as the core of the future analytic work within ESSD in Africa.

Although monitoring of outcomes will be the fundamental measure of our success, we must also have improved ability to monitor the spatial dimensions of our lending program. The Region's present coding system attributes the full amount of multi-sectoral loans to the unit that manages the operation. Successful implementation of this strategy will require adjustment in the way the Bank, or at least the Region, organizes information about its activities. The spatial dimensions of the various operations must be better tracked, both to assure that resources are actually going to rural areas, and to make explicit the contributions of the various units within the region.

The efforts and accomplishments of Africans to reduce rural poverty warrant dynamic and effective support from their partners. The Africa Region of the World Bank is committed to move on the actions noted above and in greater detail in the paper that follows, and continually to seek new ways to assist.

1. Why a Rural Strategy for Africa and Why Now?

Sub-Saharan Africa's population remains predominantly rural (70 percent), and poverty is widespread. The challenges for the rural poor of the region have been substantial in each historical epoch, and the early twenty-first century is no exception.

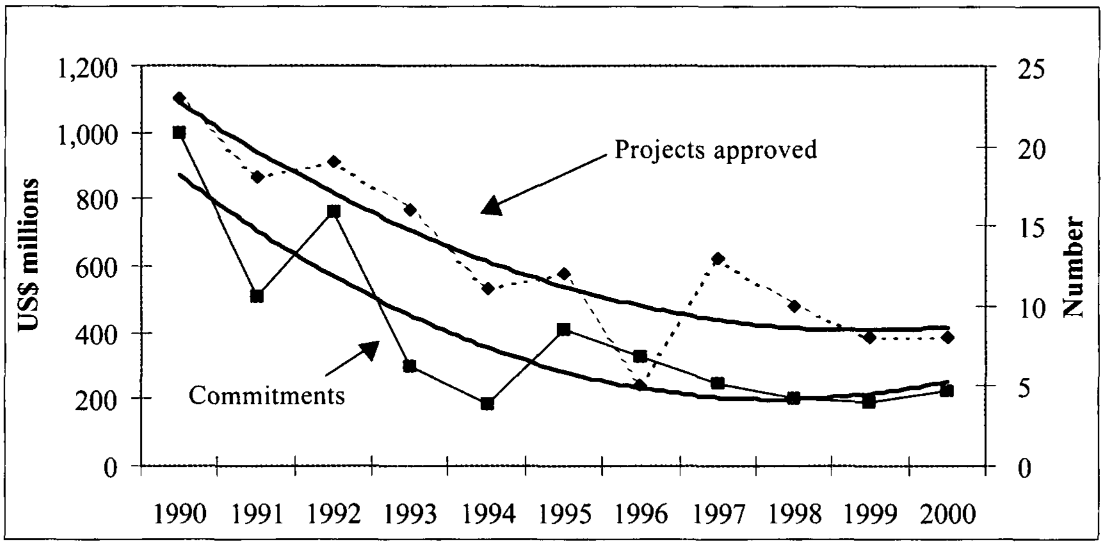
The nature of the challenges and opportunities for Africa's rural poor has changed enough in recent years to warrant a renewed articulation of the strategies that rural people and communities can employ to reduce poverty and improve well-being. The Highly Indebted Poor Countries (HIPC) initiative and the linked process to formulate strategic interventions to reduce poverty offer a unique opportunity to put the prospects of Africa's rural poor again at the center of the policy agenda. The New Partnership for Africa's Development (NEPAD) and other initiatives at the regional and national level express a renewed commitment of Africans to work together to secure their continent's future. At the global level, the new round of WTO negotiations may bring greater access to markets for African agricultural producers than did the Uruguay Round. The international community's commitment to cut the global incidence of absolute poverty in half by 2015 implies a massive effort in rural Africa. All of these factors contribute to renewed emphasis on African agriculture, and a search for new ways to spur growth.

The potential gains of growth of rural communities have increased, but so have the costs of decline. Exclusion of young people from meaningful political and economic opportunity fuels an ongoing and roving conflagration of conflict and lawlessness. When HIV/AIDS is overlaid upon endemic poverty, coping mechanisms and complex social relations that formerly served well now fuel the roadside trade in coffins. Much of Africa is now in crisis, and in this respect rural areas are not isolated. The renewed interest in rural Africa confirms the opportunities inherent in rural areas. It furthermore shows a belated knowledge that neglect by national governments and the international community under the present circumstances is neither benign nor conscionable.

As rural development moves back onto the radar screen of the donor community, all actors have a weighty responsibility to assure that resources are better used now than in the past. At the risk of over-generalizing, one could argue that the decade of the 1980s was the last for the old centrist and statist models of agricultural intervention, most of which failed. In the 1990s development efforts focused largely on stabilizing the macroeconomic environment, reforming policies and regulations, and investing in basic health and education. This last decade of the twentieth century could be broadly characterized as a period during which African governments and their development partners withdrew from many of the expensive and ineffective agricultural interventions pursued under earlier models of development, and turned attention to better macroeconomic management and investment in human resources. The World Bank's lending for agriculture and rural development in Africa during this period declined, as did that of other development partners:

- In FY90 commitments totaled about US$1 billion (23 new projects), but in FY00 they totaled just US$224 million (8 new projects) (Figure 1).
- During the decade, lending for rural development comprised a shrinking proportion of the Africa Region's total annual lending, from 23 percent in FY90 (28 percent of projects), to 10 percent (10 percent of projects) in FY99-FY00 (figure 2).
- The loan/credit amount per project declined, from about US$40 million in 1989–90 to just to US$26 million in 1999–2000.

Figure 1. Rural lending and project approvals, Africa region, fiscal years 1990–2000

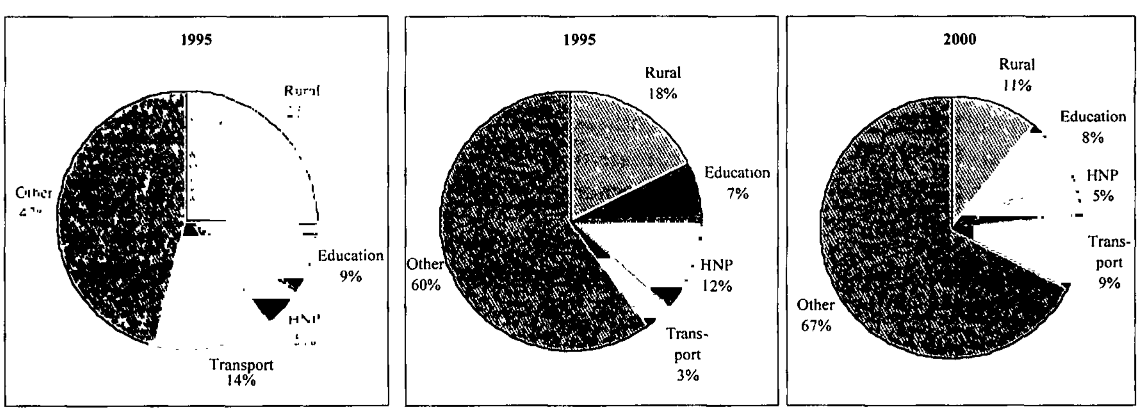


Source: Business Warehouse from Rural Development Department

Over the past decade about 89 percent of rural lending has gone for agriculture, 6 percent for natural resource management, 3 percent for rural water and sanitation and 2 percent for rural roads.

Many activities outside the agriculture + 3 sectors (i.e., agriculture, natural resource management, rural water and sanitation, and rural roads) that are captured by the Bank's portfolio database, such as education, health, nutrition and community infrastructure, take place in rural areas. The Rural Development Department recently carried out an analysis of lending in rural areas for all sectors for FY99 and FY00. The analysis showed that about 33 percent of total lending for Africa during 1999–2000 supported activities in rural areas. This implies that on a per capita basis rural inhabitants benefit much less from public spending than do urban dwellers.

Figure 2. Distribution of lending commitments in Africa, fiscal years 1990, 1995 and 2000



Source: Business Warehouse from Rural Development Department

Many of the changes in policy in the 1990s were favorable to agriculture, such as correction of over-valued exchange rates, dismantling of extractive marketing boards, and opportunities for small-holders to enter previously protected sectors. As the policy regime shifted during the 1990s and resources for rural development declined, African agriculture responded and adjusted surprisingly well, but on balance did not thrive or grow fast enough to contribute to reduction of poverty. With the lessons and accomplishments of the 1990s, African governments now seek a more proactive program of public and private investment in agriculture and rural development to achieve targets of poverty reduction. Within the development community, a new consensus is building around the understanding that macroeconomic stability and investment in health and education are important but not sufficient in and of themselves to induce the kind of widely-shared growth by the poor that is needed to meet the global targets for poverty reduction. The commitment of governments to time-bound targets to reduce poverty has brought renewed attention at the national level to agriculture, where most of Africa's poor earn their livelihoods.

Africa's present rural challenges have a history that predates the 1990s. Rural areas are severely undercapitalized, as reflected in the low use of fertilizers, tractors and other agricultural technologies, limited infrastructure, inadequate education and health, and depleted natural resources. Long secular persistence of poor policies and institutions explains the under-capitalization. Much of this can be attributed to the legacy of slavery and colonialism, both of which discouraged production and capital formation in the smallholder sector of Africa. Abduction and enslavement destroyed economic, political and social life of affected societies and undermined the formation of well-performing, sustainable states that arose in many other regions as populations grew and economic diversification provided revenue bases for public entities.

Colonial rulers used instruments other than slavery that were equally extractive. Small-holders were prohibited in many areas from growing or marketing cash crops. Colonial governments maintained monopolies in marketing and input supply that enforced prohibitions on sales and raised prices of inputs. Head and hut taxes forced rural families to send members to work for wages, often outside the village. Access to public goods and services was confined to the estate or settler sector. Similarly, investments in infrastructure primarily served the marketing needs of these groups, rather than small-holders. Finally, coercive colonial regimes resorted to forced labor and eviction of villagers from traditional land holdings.

Post-colonial policies did not reverse the decapitalization of rural areas. The era opened with great hope at a time when a fatally flawed paradigm of development dominated professional thinking about economic growth. Nationalistic governments turned inward, favoring urban and industrial development over rural and agricultural. Belief in the efficacy of central planning led to the suppression of the private sector and poor macroeconomic policies. Highly centralized political, fiscal and institutional systems governed rural areas. Agricultural policies levied implicit taxes on crops and transferred resources to urban areas, although in some instances the policies also delivered costly and inefficient subsidies, especially for fertilizer, transport, and subsidized credit. Organizations of civil society, including voluntary producers' organizations, were highly constrained. Post-colonial governments in many instances simply failed to nurture the entrepreneurial initiative of rural people. Although many rural organizations remained vibrant against all odds, they were starved of resources and hobbled in efforts to promote the welfare of their constituents. Governments throughout this period were assisted by the donor community, which, in turn was guided by faulty economics and the political polarity of the Cold War era.

The legacy of scarcity, poverty, and imposed dependence is thus very relevant to the agenda of today. Rural areas still lack physical, human, social, and political capital. Poor infrastructure imposes high costs and exacerbates risks due to isolation. Natural resources are degrading under pressures of poverty. Changes to remedy this dearth of capital cannot be ordained from the top, but must derive from better incentives and stronger participation of rural communities in decisions that affect their present and future welfare. Women are especially important in small-holder agriculture in Africa. Access of women to education, land, technology, services, inputs, finance, and social protection is a key issue of African development as well as social justice.

The following chapters provide an overview of the regional context for rural development and elaborate the strategic interventions that form the core of the World Bank's support in partnership with governments, other donors, civil society and rural people, themselves. The strategy emphasizes community participation, strengthening of voluntary producer organizations, primacy of the private sector in production and trade, a stronger role for markets, enhanced activity of local governments and private firms in the provision of public services, and transparency and accountability in the use of public funds. The strategy is not new, and major elements were articulated in the 1997 *Rural Development: Vision to Action* document. The present paper newly articulates the strategy in concepts and actions consonant with the lessons of the 1980s and 1990s. It is predicated on the assumption that political, economic, institutional, organizational, technical, and financial factors must be aligned in multi-sectoral interventions at both the local and national levels.

In order to be successful, the strategy needs to tackle rural poverty in three dimensions: temporal, geographic, and across social groups. A further distinction needs to be made between transient and chronic poverty, which call for different responses. Sustained growth will contribute toward solving the chronic and some of the geographic and distributional manifestations of poverty. Nonetheless, due to high rural risks and persistent poverty in marginal areas and specific regions, transient poverty will require targeted interventions.

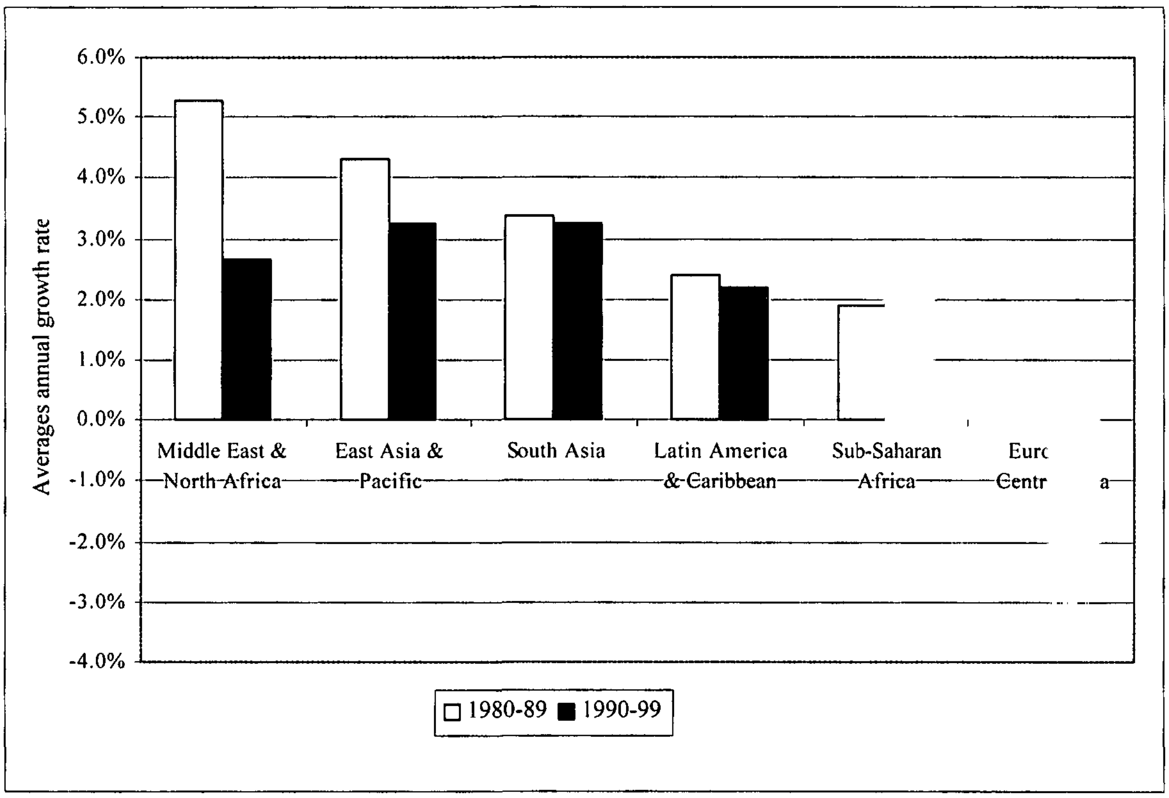
In the following pages we outline an approach that is more proactive and interventionist than that of the 1990s, but at the same time consistent with appropriate roles for the public and private sectors. We offer no quick fixes, but we firmly believe that opportunities to move in the right direction are ample, and should be pursued with professionalism and urgency.

2. Regional Context and Challenges for Rural Development

Agricultural Output is Growing but Productivity is Stagnant

Indicators of rural well-being are closely correlated with agricultural performance in Africa. Aggregate growth rates in African agriculture overall rose during the 1990s (**Figure 3**). While Africa's agricultural growth lagged all developing regions in the 1980s, the gap narrowed in the 1990s, due to improvement in Africa and deterioration elsewhere. Despite improved growth, rural poverty in Africa remains more prevalent and deeper than in other regions.

Figure 3. Agricultural growth by region, 1980–1999[1]



Source: World Bank World Development Indicators database

Although agricultural performance in the sub-continent as a whole improved in the 1990s, some countries performed well and others very poorly. The 48 countries of Sub-Saharan Africa are widely diverse in their resource and factor endowments and their abilities to commit politically to actions to increase growth and reduce poverty. During the 1990s twelve of the 48 countries of the region were able to

[1] Data for Europe and Central Asia are not shown due to lack of comparable measures for the 1980s, but growth in much of that region was negative throughout the 1990s.

maintain agricultural growth rates of 4 percent or better (Appendix 2). This is a large improvement over the 1980s, when only five countries achieved agricultural growth rates of more than 4 percent (Benin, Comoros, Mozambique, Togo and Cape Verde). Even these well-performing countries did not on average reach the rates of about 6% needed to meet the Millennium Goals to reduce poverty.

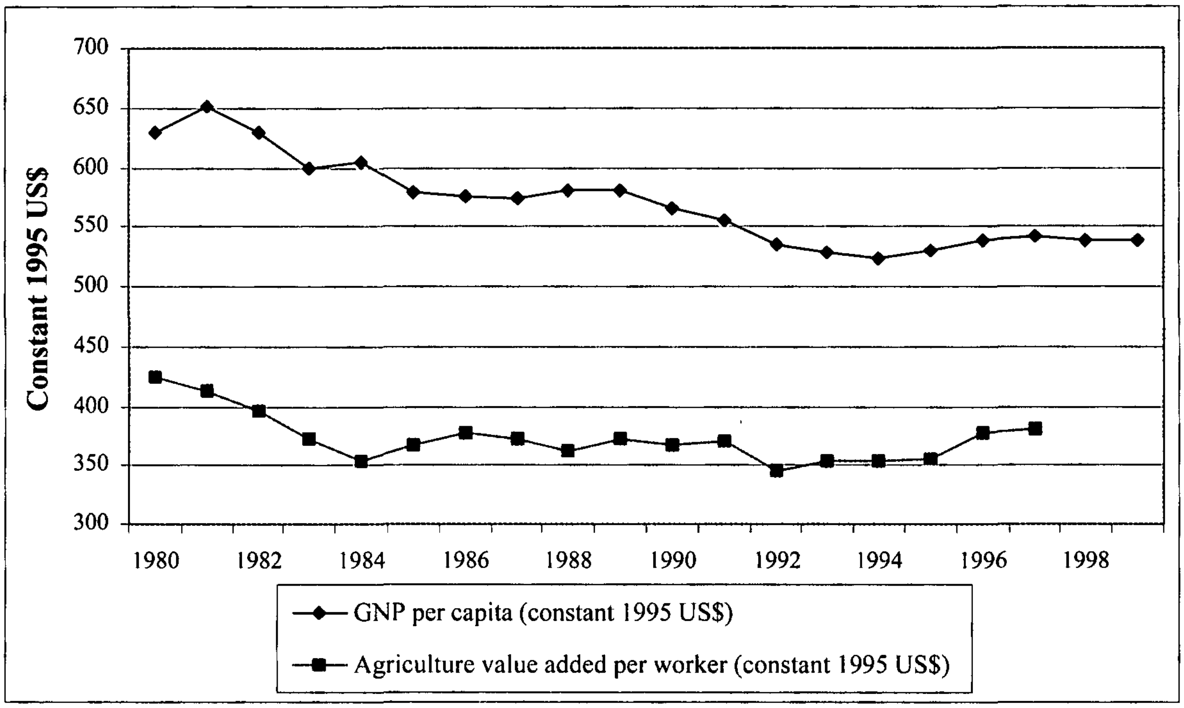
Agricultural growth has also been positive in a second group of countries, but at rates that are less than 4 percent per year on average, and in many cases less than the population growth rate in individual countries. Rural poverty is gradually worsening in these countries, although again the measures are not complete. About half of African countries fall into this category. Poverty is rising quite rapidly, particularly among displaced rural people, in about a dozen of countries that are immersed in civil or international conflict or unrest. About 100 million Africans, 20 percent of the total population of the region, live in these countries. Of these people, about 4 million are currently refugees, displaced from their homes and deprived of their livelihoods. The impact of conflict is clear from the statistics. Countries that enjoyed high rates of agricultural growth during the 1980s, including Burundi, Rwanda, Sierra Leone, Comoros and the Republic of Congo, all experienced low or negative agricultural growth when overwhelmed by conflict in the 1990s.

Agricultural Productivity. While agricultural output is growing in Africa, productivity, as measured by the average productivity of agricultural labor, has declined over most of the last two decades. As shown in figure 4, agricultural productivity per worker for the region as a whole has fallen by about 12 percent from US$424 in 1980 to an estimated US$365 per worker (constant 1995 US$) in the late nineties. Agricultural yields have also been level or falling for many crops in many countries. Significantly, yields of most important food grains, tubers and legumes (maize, millet, sorghum, yams, cassava, groundnuts) in most African countries are no higher today than in 1980. Cereal yields average 1,120 kilograms per hectare, compared with 2,067 kilograms per hectare for the world as a whole.

Achieving the poverty reduction objectives requires a reversal of the observed productivity trends. Most rural Africans depend on land and labor for their livelihoods, and increased productivity of both will raise incomes. Higher agricultural productivity also fuels economic growth by stimulating demand for locally produced non-agricultural goods and services, and by generating surplus used for investment. Rising agricultural productivity is widely regarded as the first step in the process of agricultural transformation (Timmer, 1998). The trends depicted in figure 4 illustrate the relationships between agricultural productivity and overall incomes. Reflecting the decline in productivity, average incomes (GNP) per capita in Africa fell from US$629 in 1980 to just US$540 by the end of the nineties.

Low productivity has seriously eroded the competitiveness of African agricultural products on world markets. Africa's share of total world agricultural trade fell from 8 percent in 1965 to 3 percent in 1996. Reduced competitiveness derives in part from internal factors that African governments can address, such as under-investment in agricultural research, poor development of input markets, and insufficient attention to grading and standards. It also derives from factors that are outside the control of governments, such as a lack of meaningful progress on reform of global agricultural trade. The largest trading partner for most African countries is the European Union, which accounts for about 50 percent of exports, and about 41 percent of imports. North America is second, accounting for 15 percent of exports and 30 percent of imports. Because such a large share of African exports are destined for the highly protected markets of Europe and North America, opening these markets could make a big difference for Africa's rural development.

Figure 4. Agricultural value-added per worker and per capita gnp, Sub-Saharan Africa, 1980
(most recent available - constant 1995 us$)



Source: World Bank World Development Indicators database

Low agricultural productivity is a result of low investment in virtually all the factors that contribute to productivity. Only about 4.2 percent of land under cultivation in Africa is irrigated. This compares with 14 percent in Latin America and the Caribbean, a region with similar population densities and resource endowments (World Bank, 2001b). Fertilizer application is 15 percent lower today than in 1980. The number of tractors per worker is 25 percent lower than in 1980 and the lowest in the world. Endemic animal diseases reduce the use of animal draft power. Malaria, HIV/AIDS and other diseases threaten the health of rural people. Literacy levels are slipping where people face pressures of disease and falling incomes.

Globalization Presents New Challenges

Looking forward, globalization presents new challenges for policy makers and entrepreneurs, including farmers, as well as the new opportunities associated with global flows of goods, information, people and capital. The increasing integration of domestic and international markets limits the power of domestic policy to influence rural incomes independently of world market conditions. It also exposes countries to risks from external shocks and instability. In the current environment, governments must take account of how domestic agriculture is linked to global product and financial markets. Policy makers must also recognize that macroeconomic policies often have more impact on rural incomes than do agricultural policies; adopting sound policies that encourage savings and investment and widely-shared growth is ever more critical. Globalization is also leading to a rising importance of consumer preferences in determining what is produced. This is a particular challenge for Africa, which has a long legacy of governments and donors influencing supply. African producers must now reorient toward systems that are more attuned to consumer preferences and requirements.

Steady Degradation of Natural Resources Reduces Productivity

The natural resource base on which most of Africa's rural poor depend is under pressure from poverty and population growth. Soils are degrading from poor cropping practices and increased exposure to wind and water. Much of Africa is subject to extreme annual variability in rainfall of plus and minus 35 percent, bringing poorly predictable droughts and floods and massive macroeconomic shocks. Despite higher than average variability in the supply of water, the region has very little storage capacity. For example, in Ethiopia 43 cubic meters of water are stored per capita, compared to 746 cubic meters in South Africa, and 6,150 in North America.

Fresh water, one of Africa's scarcest commodities, is threatened by inefficient use, pollution from industrial and domestic effluents, and by degradation of watersheds in major river basins. Through investments and continued reforms, Africans must manage scarce water resources effectively for agriculture, industry and human consumption, yet still leave enough to maintain healthy ecosystems. Forests, wetlands and rangelands are receding or degrading across much of Africa, with major consequences for the poor. Negative impacts of the loss of forest ecosystems include deterioration of watersheds resulting in droughts and flooding and a deepening shortage of fuel-wood. For instance, of the region's 11 major multi-national watersheds, eight have lost significant proportions of their original forest cover. The loss and degradation of natural habitats is accompanied by the loss of biodiversity, which has both short and long-term implications for the region's poor. In the short term people suffer from the loss of access to economically important natural products such as medicinal plants, foods (including famine reserves), and building materials. Longer-term impacts can include ecological instability and pest and disease outbreaks. Many coastal, marine and freshwater fisheries that provide protein for a large part of the population are threatened by over-fishing and by reduced surface water flows and pollution. Africa leads the world in the burden of disease arising from unclean water and poor sanitation, malaria, and (together with India) indoor air pollution.

The international development community has set the goal for all countries to be implementing national strategies for sustainable development by 2005 in order to reverse the loss of environmental resources by 2015. Most African countries have produced environmental strategies; few are implementing them systematically. But 70 percent of Africans rely directly on natural resources for a part or all of their incomes, and improved natural resource management can lead to higher incomes and reduce risk (see box 1).

High Population Growth in Both Rural and Urban Areas Creates New Challenges and Opportunities for Systems of Food Production, Processing and Distribution

Despite the devastating impact of AIDS, Africa's population growth is the highest in the world, at 2.5 percent per year. Population in 2015 is projected to grow to about 920 million, compared with 640 million in 2000. This is 10 percent less than population would have been without AIDS (United Nations, 2001). The demographic impact of HIV/AIDS is dramatic in the nine countries with the highest HIV prevalence (Botswana, Kenya, Lesotho, Malawi, Namibia, South Africa, Swaziland, Zambia and Zimbabwe). For example, Botswana's population in 2015 will be 28 percent lower than it would have been in the absence of AIDS. Yet, because of high fertility, Botswana's population is projected to increase during the next 15 years. In only one country, South Africa, is population projected to decline during 2000–2015 (United Nations, 2001).

Box 1. The rural poor depend heavily on natural resources: empirical evidence from woodlands in Zimbabwe

Despite ample evidence that rural households in Africa depend heavily on environmental resources, there are few rigorous studies of either the value of resource use to rural dwellers or of the economic determinants of household resource use.

Recent work in Zimbabwe has sought to shed light on a series of complex determinants of environmental resource use. Findings from this work, carried out over several years in Shindi Ward in southern Zimbabwe, showed that environmental resources? broadly defined to include wild foods, wood and wood products, grass, reeds, canes and leaves, and other woodland-based resources? in aggregate contribute roughly 35 percent of average total household income.

The study also confirmed that the poor depend more on natural resources than the rich. Even so, aggregate total resource demands still rise with income: better off households, in quantitative terms, use more environmental resources overall. The research also showed that factors determining resource use are complex: different households use different resources for different reasons at different times. Still, the conclusions are inescapable: the rural poor depend heavily on resources derived from woodlands, and deforestation poses a significant threat to rural livelihoods.

Source: Cavendish, William, 1999.

Producing food for an additional 260 million people in just 15 years will require a shift to agricultural technologies that produce more per unit of land and labor without threatening the quality of soil and water. Systems of food processing and distribution will need to be strengthened to feed an urban population that is expected to double by 2015, from 215 million to 430 million. Food safety will have to be improved as more Africans depend on complex handling and transport of food.

With proper incentives and increased investment, Africa's production and marketing of food can serve the growing population. Indeed, high demand for food as incomes and numbers of people grow will provide a strong local and regional market for increased production. Trade policies of African countries will have to be quite open to allow producers and consumers to benefit from improved performance of agriculture in the sub-continent.

Limited Rural Infrastructure Inhibits Access to Markets and Information

The lack of adequate, affordable and reliable infrastructure services (transportation, water supply and sanitation, energy and telecommunications) touches the lives of rural African families every day. Starting in the predawn hours, many women and children walk long distances to the nearest water supply, which may be unsafe or provide too little water to meet the community's needs. Women cook with inefficient stoves in kitchens filled with smoke that damages their lungs and eyes, using wood that they or other family members cut from sources increasingly distant from where they live. The family raises crops and animals, but they struggle to move beyond subsistence because they have little access to markets, inputs and vital information, because the local roads are often impassable and there are few telephones or other communications technologies for many miles. Villages lack electricity, which forces the children who are lucky enough to go to school to do homework by the light of kerosene lanterns, prevents the health clinics from regularly stocking medicines that require refrigeration, and discourages expansion of non-farm businesses that could provide alternative sources of income.

A few statistics illustrate the challenges that many rural Africans face:

- Africa has the lowest density of paved roads of any of the world's regions, due to relatively sparse population, low investment in roads, and high costs of maintenance. One-third of Africa's people live in landlocked countries without river access to a seaport and thus face high costs of access to international markets.

- Walking is the principal means of transport for 87 percent of rural households in Burkina Faso, Uganda and Zambia, according to a recent study (Brawl, 1996).
- Less than half the people in Africa have access to safe drinking water.
- Only about 5 percent of Africa's rural residents have access to modern electricity; the remainder depends on traditional fuels, mainly wood and cow dung, for cooking, warmth and light (Sanghvi, 2000).
- Very few African villages have a single telephone. The disparity of "teledensity" (number of lines per person) between urban and rural areas in Africa is estimated to be as high as 25:1 (Dymond, Juntunen, and Navas-Sabater, 2000). Cellular technology can change this, and countries should act quickly to open air space to firms and entrepreneurs who will move cellular phones to rural clients.

Better access to services, such as transport, water supply, power, and communications will improve the quality of life for rural Africans, especially women and girls. Better access also contributes directly to productivity, especially in agriculture where women and girls predominate. Time not spent collecting fuel-wood or water can instead be devoted to agricultural activities, such as composting and weeding, and/or attending school to improve basic skills. Families that have lost working members to AIDS or other calamities face particularly sharp trade-offs in allocation of domestic time, and time-saving services are particularly valuable.

Improving access to infrastructure of Africa's rural poor requires significant new investment. Yet investment in rural infrastructure has declined during the past two decades. Two recent developments offer improved prospects for the future. The strategies to reduce poverty that many African countries are devising under the HIPC process draw attention to needs for increased public and private partnership to secure the roads, bridges, power, and communications to underpin success. In addition, many governments are decentralizing, passing responsibilities and resources down to provincial and local governments that are better suited to identify priorities for construction and maintenance of infrastructure.

Low Levels of Investment in People Condemn Many Africans to Poverty and Early Death and Limit their Ability to Contribute to Development

On average, almost one in ten African children dies before her or his first birthday, a rate 15 times higher than in the industrialized countries. Life expectancy is lower in Africa than in any other region, at just 49 years for men and 52 years for women. This compares with the world average of 65 years for men and 69 years for women. Of the twelve countries in the world with maternal mortality rates exceeding 1,000 deaths per 100,000 live births, ten are in Africa. Primary and secondary school enrolment rates are lower than in any other developing region.

In many countries mortality and morbidity are worsening, in large part because of the impact of HIV/AIDS (see below). In 26 countries in the region life expectancy fell during the 1990s. Child malnutrition rates climbed in all but five African countries during 1990–96. Primary school enrolments in Africa have stagnated at slightly lower levels than were reached 20 years ago, and are the lowest in the world. Rural people score more poorly on all indicators of human development than people living in urban areas.

The international community has set as goals for education enrolling all children in primary school by 2015 and eliminating gender disparities in primary and secondary education by 2005. Meeting the goals will require building schools, training teachers and providing textbooks for an extra 80 million children during the next 15 years, most of whom live in rural areas where it is difficult and expensive to provide services. Similarly, reaching the three international development goals for health outcomes? reducing infant and child mortality rates by two-thirds by 2015, reducing maternal mortality rates by three-quarters by 2015, and providing access for all who need reproductive health services by 2015? will require substantial increases in health care services in rural Africa.

HIV/AIDS Undermines Development Processes

HIV/AIDS has now killed over 20 million Africans, and orphaned over 10 million children. HIV/AIDS undermines agricultural systems and affects the food security of rural families. As adults fall ill and die, families lose their labor supply, as well as knowledge about indigenous farming methods. Families spend more to meet medical bills and funeral expenses, drawing down savings and disposing of assets. HIV/AIDS undermines the incentives and the ability to invest in farms, infrastructure and education, threatening future prospects for rural and national development.

While HIV/AIDS prevalence is still lower in rural areas than in cities and towns, infections in rural areas are growing rapidly. Rural communities bear much of the burden of the disease because many urban dwellers and migrant workers return to their villages when they fall ill. As the number of productive family members declines, the number of dependents grows, putting families at great risk of poverty and food insecurity.

Women are particularly hard-hit by the HIV/AIDS pandemic. Biological and social factors make women and girls more vulnerable to HIV/AIDS than men and boys. Studies have shown that HIV infection rates in young women can be 3–5 times higher than among young men. Women and girls also face the greatest burden of caring for the sick and the children left orphaned. In many hard-hit communities, girls are being withdrawn from school to help families meet immediate needs.

The epidemic is tragic and made more so because it is preventable, through education, behavioral change, appropriate public policy, and treatment. The World Bank has developed an instrument to make resources available rapidly to countries wishing to implement their own programs to prevent the spread of HIV/AIDS and to help communities cope with its impacts, including care for orphans. The HIV/AIDS operations are a core element of the Bank's strategy to support rural development in Africa.

Conflict Kills, Wounds and Displaces Millions

During the past ten years, more than a dozen African countries experienced significant civil or international conflict. About 100 million Africans, 20 percent of the total population of the sub-continent, live in these countries. Some countries, including Sudan, Somalia, Burundi, Angola, and the Democratic Republic of Congo, have been in conflict for years. Others, such as, Sierra Leone, Guinea-Bissau, Liberia, Zimbabwe and Côte d'Ivoire, have only recently suffered flare-ups of violence. Millions have been killed or wounded. As noted above, about 4 million Africans are currently refugees, displaced from their homes and deprived of their livelihoods.

Conflict presents enormous challenges to rural development. In combat zones, conflict takes land out of production through placement of mines or direct displacement of farmers, contributing to national and household food insecurity. In some countries, such as Angola, a significant proportion of arable land has been laced with landmines and cannot be farmed. Even in places not directly affected by fighting, conflict destroys incentives to invest in farms or businesses. Armies consume resources that governments could otherwise spend on basic health care and education, infrastructure or other purposes.

In turn, poverty, unemployment, low education, hunger and autocratic institutions are associated with conflict. Conflict is likely to grow worse in Africa unless significant progress is made in generating widely-shared growth, reducing poverty, lowering food insecurity, and creating more representative institutions.

Women's Potential Contribution to Development is Thwarted by Unequal Access to Resources and Knowledge

Women provide 70 percent of total agricultural labor in many countries of Africa. In part this is because many African households are headed by women, as men migrate to cities in search of work or are conscripted into armies. Even in households containing both adult men and women, women often have primary responsibility for producing food. Yet, often women do not have access to the resources that would enable them to increase output. One major constraint is time. Along with cultivating fields and tending animals, they must look after children, the sick and the elderly, collect firewood and water, prepare food, transport goods, and buy and sell goods in the market (Blackden and Chitra, 1999). Women also lack access to information of more advanced agricultural technologies or labor-saving methods, in part because most agricultural extension agents are men and communicate most effectively with men. Women have difficulty obtaining capital for investment in their farms because they lack decision-making authority and access to credit or other means of acquiring new technology or agricultural inputs. A study in Burkina Faso showed that these disadvantages take a toll; women cultivate their plots less intensively than men and yields are 18 percent lower than on identical plots controlled by men (Udry, 1996). This suggests that unless the needs of women are specifically addressed in agricultural and rural development programs, growth will continue to lag (box 2).

The importance of gender to rural growth has been known for many years, and little progress has been made in turning things around. In designing future support, the World Bank will place particular emphasis on land rights for women, inclusion of women in community development programs, and access to agricultural advisory services through more pluralistic and responsive approaches to extension.

Box 2. Paying attention to the needs of women could increase Africa's food production by 15 percent

Rural women face obstacles that result in well-documented loss of agricultural productivity. For example, a survey of 750 rural households in Kenya found that men's gross value of output per hectare is 8 percent higher than women's. If women, however, had the same human capital endowments and used the same volume and quality of factors and inputs as men, the value of their output would increase by 22 percent. Capturing this potential productivity gain would substantially increase food production and reduce the region's food insecurity. If these results from Kenya were to hold true for the region as a whole, simply raising the productivity to the same level as men could increase total production by 10–15 percent. Similar results were found in an analysis in Zambia, which showed that if women commanded the same factors of production as men, output in Zambia could increase by up to 15 percent.

Source: Saito et al, 1994, cited in Blackden and Chitra, 1999.

3. The Strategy

Although specific elements of the strategy are unique to countries and regions, the strategic interventions fall into four broad categories.

- Making governments and institutions work better for the rural poor.
- Promoting widely-shared growth.
- Enhancing management of natural resources.
- Reducing risk and vulnerability.

The strategic interventions apply differentially depending on circumstances of individual countries. Given the scarcity of resources, the fiduciary responsibilities of the World Bank, and lessons learned regarding the efficacy of aid, preference is accorded to countries that are performing well and demonstrate a strong commitment to reduce poverty. This preference is reflected in the allocation of resources among countries and in increased attention to systems of public procurement and management of public finance.

Other factors that affect the emphases of national strategies include:

- Stability and strength of local institutions (for example, presence or absence of conflict, and status of decentralization)
- Relative factor endowments (for example, abundance or scarcity of land and water)
- Potential for agricultural intensification through greater commercial integration of small-holders relative to alternative farming systems for economically marginal areas
- Prevalence of HIV/AIDS and other endemic diseases of people and livestock
- Cultural traditions affecting dietary preferences and livelihoods.

For example, in countries emerging from conflict, such as the Democratic Republic of the Congo, the rural strategy will focus on rebuilding livelihood systems at the community level through participatory diagnoses and micro-projects. In large and diverse countries, such as Zambia and Tanzania, different strategies are appropriate for different regions. In many places the potential for intensification through better linkages of producers' organizations to markets is substantial. In marginal areas far from markets, intensification based on purchased inputs is not appropriate, but improved rotations and cultivation practices can strengthen food security and stewardship of natural resources.

Making Government and Institutions Work Better for the Poor

Issues of governance, including the general framework for security, the rule of law, and probity in public expenditure are particularly important for rural areas, since the least empowered within a political system suffer most from poor governance. These issues are high on the World Bank's corporate agenda, and are reflected in the Africa Region in allocation of resources among countries (more for those with demonstrated accomplishment on governance) and in increased attention to systems of public procurement and management of public finances.

Strengthening Local Government Through Decentralization

Decentralization is important to bring resources and decision-making authority closer to the people that the government serves. Well-designed decentralization that improves the functioning of sub-national governments can promote participation in development processes, enhance service delivery, and lead to projects that are more relevant, implemented with greater transparency and accountability, and are more sustainable due to a heightened sense of ownership by rural people (**Box 3**).

To enhance local accountability, fiscal decentralization must be accompanied by policies that allow sub-national governments to make budget decisions that reflect nationally-shared priorities, but are not made at the center. Local governments must be accountable to citizens for taxing and spending decisions. In general this requires giving each level of government the right to hire, pay and discipline staff performing locally managed and provided services; levy taxes and collect fees for services; and determine the level and mix of services to provide, often in conformity with national guidelines. Decentralization also involves reforming electoral processes to allow citizens to choose local government officials, and opening channels for greater citizen information on and participation in local government decision-making. Moreover, mechanisms must be included to ensure that people who are normally excluded from decision-making processes are able to participate in planning, designing and monitoring programs and policies. Strong support and oversight from the center may be needed to protect the rights of ethnic minorities, women and other marginalized groups to participate in decision-making and benefit from services.

Decentralization is a complex process. It entails gaining broad consensus on which level of government should do what, creating institutional capacities of sub-national governments to raise revenues and deliver services, and implementing mechanisms to make sub-national governments accountable to citizens for taxing and spending decisions. Successful decentralization takes time. A gradual approach, supported by carefully tailored assistance for capacity building, helps create the basis for further reforms and provides opportunities for learning.

Strategies for making decentralization successful include:

- Carefully monitoring the reform process. This can be done through surveys of users and beneficiaries of services, and making the results publicly available. Local communities should participate in the monitoring.
- Rewarding sub-national governments that meet agreed goals with increased access to funding and more independence from central government. In Kenya's Small Towns Development Program this approach has led to considerably improved revenue collection and service delivery of local governments.
- Supplying opportunities for training and other support to build capacity.
- Providing incentives to encourage central government staff to move to provincial, district and local government offices.

Putting Communities at the Center of Development

Increasingly in Africa, resources to execute development projects are delivered through programs that empower communities to pursue their own priorities for development by providing financial resources, facilitation, and technical services. Initially much of this activity was channeled through social funds that financed small infrastructure projects such as schools, clinics or boreholes. Nearly all social funds involve communities in selecting projects, supervising implementation, monitoring outcomes and contributing to costs (usually 10–30 percent of the total). They do not, however, always provide funds directly to communities to implement projects themselves.

While social funds can be effective, they have several shortcomings. They are not embedded in the institutional structures of government, so they do not provide a permanent source of finance to communities. Moreover, they are often administered through special units that operate independently of government, and this can undermine local government.

Box 3. South Africa's integrated rural development strategy promises to increase the voice of rural people

The South African government, in consultation with a wide range of key stakeholders through 2000, is now intensifying efforts to improve opportunities and well-being for the rural poor. In taking this step, the government is building on six years of experience, both positive and negative, with its own rural programmes, as well as assimilating key lessons from similar efforts worldwide. The resulting Integrated and Sustainable Rural Development Strategy is strategic in its vision and practical in its focus on mechanisms of implementation.

The strategy incorporates one of the key lessons of the international experience? rural development programs must be implemented in a participatory and decentralized fashion in order to respond to articulated priorities and observed opportunities at the local level. With the municipal elections of late 2000 and creation of the municipal councils, organs of local government will from the very start take on an important role in integrating programs to achieve synergistic rural development. Many will need assistance and guidance to develop capacity, but integration is clearly their role, and the newly created institutional structures will make this possible. The Office of the Presidency will initially provide strong reinforcement and help with coordination from above, but decisions will be taken at the municipal level. Each of the line departments will make an important contribution, and their efforts to achieve synergy and higher effectiveness in their own programs will be assisted by the strengthened integrative mechanism at both the local (municipal) and national (within the Presidency) levels.

The strength of this strategy lies in its emphasis on a mechanism that can achieve results on the ground. That mechanism, in brief, empowers rural stakeholders to use the Integrated Development Plan to select programs that address their priorities. The basket of selected programs is financed at the municipal level through an expenditure envelope comprised of the municipal budget, the commitments of the line departments made through the Integrated Development Plan process, commitments of donor organizations and NGOs, and public-private partnerships. Although these resources were available in the past, they were not channeled through the new integrative mechanism.

In addition to improved integration and targeting of existing programmes, the strategy calls for inclusion of a program supporting income-generating activities at the community level on a matching grant basis. It also names accelerated implementation of the land reform as a priority.

The new approach will be implemented throughout the entire country by 2010. It will be implemented initially in selected areas of concentration and subsequently expanded. The strategy is explicitly designed to enhance the political voice of rural people. It will be implemented through the structures of local government, which will concurrently encourage government to increase capacity and rural constituents to demand accountability. The strategy in its totality presents an opportunity for South Africa's rural people to realise their own potential and contribute more fully to their country's future.

Source: Government of the Republic of South Africa, 2001.

Community driven development programs address the limitations of social funds. These programs provide partial grants to communities to use to pursue their own development objectives (within certain defined limits). Community driven development grants generate all the benefits of community participation (better project design, implementation and sustainability as communities select projects that match local preferences, and closely supervise project implementation to ensure community funds are properly used), but they go further. By giving communities control over management of money and procurement decisions, they build local skills and institutions to manage planning and implementation of development. And they help stimulate the local private sector by encouraging communities to purchase goods and services from local suppliers, including nongovernmental organizations.

Community driven development programs also work to strengthen the linkages between community and local governments. Employees of local governmental offices working in various sectors often participate in planning within the community. This helps them learn about local priorities, which they can then reflect in local development plans. The goal of the community driven development approach is to build capacity of local governments at the same time as community capacity, so that local governments can gradually take over the responsibility of distributing funds to communities and overseeing their use.

Successful community driven development projects often embody the following principles:

- Start small and grow gradually, so experiments that fail will not be costly. Grants as small as US$5,000–10,000 per community are enough to get started. Build in processes for learning and adapting programs according to emerging lessons.
- Be prepared to provide technical and managerial support to communities and local structures that request such help.
- Create ex post accountability mechanisms to assure that communities have used funds as intended.
- Include safeguards in project rules to ensure that all community groups are able to participate in project decisions, including ethnic and religious minorities, women, the handicapped, the poor and other groups that are normally excluded.
- Provide incentives to communities to select projects that address central government and international priorities, such as preventing HIV/AIDS and caring for its victims, protecting the environment, and providing safety nets for and reducing poverty among the poorest.

Supporting Voluntary Producers' Organizations

In addition to supporting improved governance, the Africa rural strategy strengthens the institutional foundations for rural development by supporting voluntary producers' organizations. Producers' organizations amplify the political voice of smallholder producers, reduce the costs of marketing of inputs and outputs, and provide a forum for members to share information, coordinate activities and make collective decisions. Producers' organizations create opportunities for producers to get more involved in value-adding activities such as input supply, credit, processing, marketing, and distribution.

Producers' organizations have a long and mixed history in Africa. Voluntary producers' organizations are somewhat stronger in West Africa. In much of eastern and southern Africa, officially-constituted producers' cooperatives were part of the institutional architecture through the 1980s, and an assessment of the appropriate types and roles for producers' organizations is still under way. Producers' organizations may operate strictly at the local level, focusing on issues of immediate concern to farmers, such as access to credit and services and resolving conflicts over access to natural resources. They may also function at the regional and national levels, influencing policy decisions on matters such as land, trade and fiscal affairs.

The principles guiding support to producers' organizations are similar to those generally governing support to community-based organizations. The focus should be first on creating an enabling policy and legal environment within which producers' organizations can flourish and become partners with government and the private sector in decision-making and implementation. Aid should be directed at providing organizational support to help producers form and operate associations and technical assistance to strengthen capacities of producer organizations to create and implement business plans. This is especially important in mobilizing the poor and other marginalized groups who may not be invited to join existing producers' organizations.

Improvements in the legal environment and technical assistance will be enough in many cases to allow producers' organizations to initiate activities and to access commercial financial services. In other cases, financial constraints will continue to limit the organizations' effectiveness. In these cases, financial support in the form of matching grants is appropriate for producers' organizations that have demonstrated capacity to manage funds and activities. As far as possible, grants should be untied to allow producers' organizations to pursue their own priorities in their own way. To ensure that benefits are widely shared, producers' organizations, donors, and the government can jointly agree on criteria and procedures for accessing and allocating funds. This information should be made widely available to all members of the community. With untied grants, producers' organizations are free to purchase goods and services from suppliers of their choice. To enable them to make informed choices, government and others can provide them with lists of qualified service providers. To reduce the likelihood that funds are misused, programs should be subject to ex-post evaluation and audits, and groups found remiss barred from accessing funding in the future until they meet specified criteria. Use of grants should complement rather than displace the development of services provided by financial institutions. For example, grants can be designed to facilitate mobilization of savings and to leverage in commercial lending.

Augmenting the Rural Voice

Each of the interventions noted above (that is, support for decentralization, community participation, and producer organizations) also serves to enhance rural people's voice in discussions of priorities for public expenditure and national development. Development partners can amplify the rural voice in consultations and negotiations with government and demonstrate the value of broad participation through their projects and programs. Nongovernmental organizations can help identify areas of common interest and help build pro-poor coalitions that link the interests of the poor with the non-poor. The Poverty Reduction Strategy Paper (PRSP) process and its links to the Highly Indebted Poor Country (HIPC) programs provide important opportunities for the donor community to encourage participants in national policy dialogue to give appropriate weight to the interests of the rural poor.

Providing Institutions and Organizations for Management of Natural Resources

The institutional framework for appropriate management of natural resources has elements at all levels of government and within rural communities. The legal framework of property rights and extraction rights provides a foundation, either for degradation or sustainable management. Regulations govern how the laws are applied. The overall climate of governance determines how well and in whose interest the regulations are enforced. Much of the enforcement must be done at the local level through decentralized or deconcentrated public agencies, and the capacity and salary structures of these agencies affect performance of their employees. Within communities, NGO's, CBO's, and associations, such as associations of water users, can do much of the work of managing natural resources if they operate within an appropriate legal framework and have access to adequate training.

Promoting Widely-Shared Growth

Agriculture remains high on the agenda for rural development in Africa—more so than in regions with greater food security and income levels supporting a more diversified economic base. Accelerating agricultural growth through technological change and trade raises the incomes of agricultural producers. It also increases real wages of both the rural and urban poor by bringing down the price of food. African families on average spend almost two-thirds of their total household incomes on food, so lowering food prices frees resources that families can use for other priorities. The increased income from expanded agricultural output stimulates the development of rural non-farm enterprises, as rural people spend their extra income on a wide variety of labor-intensive non-farm rural goods and services, such as clothing, kerosene, processed foods, health care, transportation services, and construction supplies and services. Demand for inputs increases, drawing more private traders into rural areas. Regular supply of raw products encourages investment in processing and related activities. For the most part, small, labor-intensive enterprises produce these goods and services, raising rural employment and incomes still further. Higher employment, in turn, boosts demand for food, which keeps staple prices steady in the face of higher supply. Rising rural employment increases wage rates of both rural and urban workers. Agricultural growth contributes to reduction of poverty both directly and through its linkages with rural non-farm activities.

Increased supply of agriculture is only half of the challenge. African agricultural growth is constrained as much by demand as by supply, even though this may seem paradoxical in a region with widespread under-nutrition. Production for local consumption will always be important, and the poverty of many rural Africans implies that as incomes increase, local demand for food will also grow. Thus increased production of maize, other food grains, and root crops for local consumption will contribute to growth. Moreover, internal markets will exist for these products as long as incomes are growing from other sources; e.g., export agriculture or production of other traded goods and services that generate incomes.

Increased production of food grains, root crops, and other products for local consumption alone will not sustain sectoral or aggregate growth rates in excess of 6% annually. These are the rates necessary to achieve the Millennium Goals, but local and national markets cannot absorb increases in supply of that magnitude without reductions in price. Thus the strategy for poverty reduction and for food security implies careful attention to factors that affect the demand side and the performance of agricultural exports.

Many factors affecting agricultural exports, such as international commodity prices and the weather, are outside the control of producers or national policymakers. Three sets of factors, however, are largely within domestic control:

1. the stability of the macroeconomic environment and the incentives that it provides for investment and trade;

2. the underlying competitiveness of production, including productivity, quality, policies specific to the sector or commodity; and

3. transport costs.

Thus a core agenda supporting rapid agricultural growth would address each of these in order to assure competitive access to international and regional markets.

Management of the macroeconomic environment should seek to attain real interest rates preferably at or below 10% annually, an exchange rate that is neither greatly over or under valued, and that changes little over time, modest rates of inflation, an open trade regime with tariffs at or below 10-15%, and taxation of agricultural exports at rates not greatly exceeding those of other activities. The business environment should provide confidence to investors, both domestic and foreign. Markets for inputs and services, particularly transport, should be competitive and increasing in the volume of transactions, with corresponding downward trends in unit costs over time. Agricultural research, information, and extension services should be available to and responsive to the needs of small-holders, both for food production and for exported crops. Standards for quality and grading should be measured and reflected in pricing. Countries may need assistance in meeting phytosanitary and bio-safety standards; in particular, the minimum residue levels of the European Union and the Cartagena protocol of biosafety standards.

Without conformity to these standards, key markets will remain closed even if tariffs and subsidies in OECD countries are reduced. Key investments in transport and infrastructure that will bring substantial change in costs of marketing should be pursued as matters of national and/or regional, and not just sectoral, priority. Without attention to factors that affect competitiveness, and hence demand, strategies to increase supply will not contribute to reduction of poverty, due to price effects of increased supply.

Agriculture, although important, is not the only source of growth in rural Africa. In some villages and small towns tourism fulfils the same function, especially labor-intensive tourism employing local people (box 4). Mining and mineral processing, forestry, fishing, and other natural resource based activities are important in some places. Any activity that produces a tradable good or service that is sold out of the community and generates income can stimulate growth of other productive activities through linkages in consumption and production. In Sub-Saharan Africa today, however, agriculture is the most important rural enterprise, contributing an average of 30 percent of total gross domestic product (excluding South Africa), and over 40 percent in one-third of countries (Appendix 2). Agribusinesses, which themselves depend on agricultural growth, are responsible for an additional 20 percent of gross domestic product and about 25 percent of total rural incomes (including value-added of agro-related industries and agricultural trade and distribution.

Box 4. Tourism can help countries diversify their economies and reduce poverty

Tourism is one of the world's fastest growing businesses, and Africa is benefiting significantly from this trend. During 1985–99, tourism arrivals in Africa grew by an annual average of 7.5 percent per year, compared with a world average of 5.2 percent (World Tourism Organization, 2001). This was faster than in any other region except Asia and the Pacific. During the same period, Africa's share of the world market expanded from 3 percent to 4 percent.

Tourism is a significant source of income, employment and foreign exchange in many countries of Africa. It already accounts for over 6.4 percent of GDP and 7.6 percent of jobs (including both direct and indirect effects) (World Travel and Tourism Council, 2001). By 2011 it is projected to account for 7.6 of GDP and 9.2 percent of employment in the region. However, tourism is far more important for some countries than others; countries with beach, significant wildlife resources and large diaspora communities benefit the most. Countries where direct spending on travel and tourism accounts for more than 5 percent of GDP include Seychelles (19 percent), Mauritius (14 percent), Cape Verde and Namibia (8 percent), Comoros (7 percent), and Gambia (6 percent). Countries where tourism and travel accounts for 3–5 percent of GDP are Ghana (5 percent), Botswana, Ethiopia, Kenya, Madagascar, Sao Tome and Principe, Senegal, Zambia (4 percent), Mali, South Africa, Tanzania, Uganda, Zimbabwe (3 percent) (World Travel and Tourism Council, 2001).

For rural people, tourism offers a means to diversify sources of income. Governments and their development partners can increase the positive impacts of tourism on the poor. Measures include:

- Encouraging mainstream tourism businesses to link up with small enterprises supplying goods or services
- Developing the entrepreneurial capacities and managerial skills of small and medium-sized enterprises and local people
- Providing training to the poor to improve their employment opportunities in businesses that serve the tourism industry
- Helping rural communities start and operate small-scale tourism businesses built around community assets
- Involving local communities in managing public lands, such as national parks
- Providing a regulatory environment that protects natural resources from over-use and degradation.

Agriculture leads growth in many parts of rural Africa, but investments in infrastructure and human capital lead agriculture. Hence the agendas of income generation and provision of services are intertwined. Moreover, as agricultural growth accelerates and demand for nonagricultural goods and services grows, well-functioning infrastructure and service delivery systems raise the multipliers that spread agricultural growth broadly within the community.

In most of rural Africa small-holders participate in markets and sell at least a portion of their output for cash. For these producers, growth based on better integration with markets, diversification of sources of rural income, and interlinked development of farm and non-farm activities can reduce poverty. Many rural Africans, however, live in areas that are marginal either because they are remote or have very poor natural endowments. Small-holders in marginal areas may not be competitive producers of crop or livestock products for markets. In these areas, strategies based on more intensive interaction with markets may not be appropriate either economically or environmentally. Promising technologies are available and new ones are being developed that combine low-input agriculture and forestry and innovative rotations to improve food security in areas where more intensive use of purchased inputs is not a feasible option.

Reforming Policies and Institutions to Encourage Investment

Continuing Policy and Regulatory Reforms. The faster growing African countries have made substantial progress on macroeconomic and sectoral reforms. Continued assistance may be needed to consolidate reforms and to support budgets of public entities fulfilling newly defined functions.

Reducing Trade Barriers of Both Industrialized and African Countries. An important part of the policy agenda lies outside the boundaries of African nations, in the evolving rules of the World Trade Organization (WTO) and decisions regarding subsidies and market access of the OECD countries. Despite the rhetoric of change on agricultural protection during the Uruguay Round, change in practice has been modest and gains for African producers very limited. Unless further gains are made in reducing subsidies and opening markets, the global goals of poverty reduction cannot be considered a serious commitment by the developed world. The World Bank assists in the area of trade liberalization by providing analysis and advocacy for African countries, and by assisting their trade representatives to prepare for participation in trade negotiations.

Reducing trade barriers within Africa will also help increase incomes. African import tariffs average 25 percent, which is three times higher than those of the fast growing exporters and more than four times the developing country average (Townsend, 1999). Non-tariff barriers also remain high across the region. Trade barriers hurt farmers by increasing the costs of their inputs (for example, fertilizers and tractors), and by restricting markets for their outputs. Because so many Africans rely on agriculture for their livelihoods, liberalizing trade would have dynamic multiplier effects for rural areas and for economic growth as a whole.

Deepening Structural Reforms. In much of Africa, private sector response to policy and institutional reforms in the 1990s has been disappointing. This has led some to question the value of the reforms themselves. In many cases current problems derive from residual interventions an incomplete liberalization. For example, In Zambia the parastatal Food Reserve Agency until recently continued to intervene in input markets to the detriment of the development of private activity in this sphere. In Malawi new entrants in the transport business face high fees for licenses and pay high prices for spare parts of vehicles due to avoid duties and tariffs. As a result, transporting goods from the farm to market costs twice as much in Malawi as in neighboring countries.

Making Institutions Transparent, Consistent, and Credible. About 60 percent of entrepreneurs in Africa report that unpredictable changes in rules and policies seriously affect their businesses (Brunetti, Kisunko and Weder, 1997). Institutional arrangements that foster responsiveness, accountability and the rule of law need to be developed if incentives for private investment are to improve. Areas of special attention include rules that allocate and define property rights (property and bankruptcy laws, intellectual property rights, zoning regulations), and rules that define permissible and non-permissible forms of cooperation and competition (licensing laws, laws of contract and liability, company and cooperative laws, anti-trust laws).

Improving Provision of Agricultural Services, Including Research and Extension

Research. Science, technology and innovation are crucial to raising the productivity of agriculture and improving the management of natural resources in Africa. The technological lag in African agriculture is primarily a symptom of under-investment and lack of adoption, not low rates of return to research. In the future, African institutions of research and extension will need further institutional and management reforms, higher levels of support, stronger involvement of beneficiaries, and closer linkages with institutions working on the frontiers of scientific discovery, including those in the private sector. Investments in agricultural research generate high payoffs in Africa, with a median internal rate of return of 37 percent (Evenson, forthcoming). However, after increasing from US$250 million in 1961 to US$701 million in 1981, spending for agricultural research in Africa stagnated in the 1980s and the 1990s. In many African countries, budgets go increasingly to fund staff costs rather than operations, with limited effectiveness of spending.

More needs to be done both to increase funding for research by international and national research centers and to make spending more effective in meeting the needs of African farmers. According to estimates of FARA (see below), total funding for agricultural research in Africa should increase from rates of about US $1 billion today to US $2 billion ten years from now. Partnerships between the public and private sectors show increasing promise and reflect the substantial role of the private sector in global agricultural research, although the actual presence of the private sector in African research is miniscule now. For example, in a highly promising partnership the Institute for Genome Research in the United States and the Kenya-based International Livestock Research Institute joined together to control East Coast Fever, a disease that kills one million cattle in the region each year. Public institutions can improve cost recovery by collecting fees for improved seeds and other technologies generated through research. Partnerships within the public sector are important, as well. Regional and sub-regional collaborative research programs that coordinate the efforts of national research systems can meet this need. Strengthening linkages of the national agricultural research centers with the Consultative Group on International Agricultural Research (CGIAR) is also critical. The World Bank and other development partners have assisted in creating an African based regional entity (Forum for Agricultural Research in Africa, or FARA) that will strengthen the linkages between and among national research programs and with centers of excellence, including the CGIAR. In addition, the World Bank is developing a lending facility on which countries could draw to receive support for their national and regional programs of agricultural research, with strong incentives for institutional reforms, and streamlined procedures for project preparation and approval.

To improve effectiveness of spending, more needs to be done to decentralize resources; involve farmers and agribusinesses in decisions on research priorities, funding, execution and evaluation; outsource research activities through competitive grants; bring research closer to and into farmers' fields; improve coordination among research institutions; and systematically monitor and evaluate results. A great effort needs to be made to focus the research agenda on the needs of women farmers. This will require reaching out to community organizations to learn what special constraints women face and then focusing research programs to tackle them.

Biological innovations in agricultural technology hold special promise for much of the African region, since the new technologies in many cases enhance resistance to pests and diseases, are productive under rain-fed conditions, and can be distributed relatively inexpensively through improved seeds or breeding stock. Africa needs larger, better funded research institutions and strong public-private partnerships that can engage effectively in developing and applying biotechnology in selected areas. To facilitate research and commercialization of agro-biotechnology, governments need to pay special attention to the policy and regulatory environment. Few African countries at present have in place a proper legal and regulatory framework to manage the introduction of this biotechnology—spanning biosafety, food safety, and intellectual property rights. The Global Environment Facility (GEF) is putting into place a mechanism to assist African countries to comply with the Biosafety Protocol. Africa has a special stake in global efforts to assure that the products of the new technology are safe and acceptable to consumers world-wide. Particular efforts should be made to assure that African perspectives are represented in the global fora where issues regarding trade and standards for biological technologies are debated.

Extension. Beginning in the early 1980s, World Bank support to agricultural extension in Africa was guided by a framework that came to be known as the training and visit (T&V) system for agricultural extension. Under these programs, central ministries placed a cadre of civil servants in the field to work with farmers, while providing supervision and technical guidance through civil servants stationed at the provincial and national-level offices. These programs in Africa employed an estimated 100,000 civil servants who worked directly with up to 10 percent of Africa's farmers.

In recent years, disenchantment with these centrist and traditional extension programs has grown. High costs and perceived limited impact of the traditional programs has led to the emergence of new approaches in the design of public agricultural service programs. Since the mid-1990s countries have increasingly developed agricultural extension reflecting the principles of:

- Decentralizing resources and responsibilities for extension to local governments and communities. Decentralization gives farmers a bigger role in designing, funding, governing, executing and evaluating extension programs. It also improves responsiveness and accountability of extension agents.
- Outsourcing extension services to nongovernmental organizations, private groups or others. Outsourcing improves efficiency of delivery and accountability of extension agents, especially where a choice of providers is available.
- Sharing costs of extension services among national governments, local government, farmers' associations, nongovernmental organizations, donors and farmers. The share paid by local governments and farmers rises as the system matures. Cost sharing makes financing of extension services more sustainable and less dependent on national budgets.
- Improving linkages among farmers, educators, researchers, extension agents and others. Stronger linkages improves the relevance and impact of research and extension.
- Systematically monitoring and evaluating extension programs. Careful tracking focuses attention on results.

A program designed along the foregoing lines is being implemented in Uganda with support from the World Bank and other donors (box 5). Other countries have expressed interest in the approach and are likely to move in the same direction. For example, Zambia is implementing participatory extension programs with support of the World Bank and other donors.

More work needs to be done to ensure that the principles for effective extension are systematically reflected in national programs. Approaches that better meet the needs of women farmers are also needed. Recruiting and training more women to provide services in the public and private sectors would help in reaching women farmers. Using women's associations as contact groups has improved outreach to women in some countries, and is often more effective than working through village associations, which are often led by men. In some countries, women extension volunteers selected by their communities to serve as points of contact with extension agents have proved effective in bringing advisory services to women.

Increasing Investment in Infrastructure and the Quality of Services in Rural Areas

Investments in infrastructure improve the linkages between rural areas and small towns and trading centers, enhance productivity, and raise the quality of life of rural people. Rural income generation depends in large part on business services provided in towns, including marketing, exchange of information, banking, telecommunications, and others. Rural non-farm enterprises are both providers and users of these services. The towns and rural hinterlands thus form a connected economic space in which value added per hectare correlates closely with the density of connection.

To ensure that poor people share widely in the benefits of growth requires measures to increase their opportunities and access to services. Substantial new investments in rural education and health care, clean water and sanitation systems, and transport, power and telecommunications services are needed.

Box 5. Changing the institutional arrangements of agricultural extension in Uganda

Through the National Agricultural Advisory Program, the government of Uganda is fundamentally altering the way it manages agricultural extension. Key changes include:

- **Increasing independence and flexibility of extension services** by creating a small and semiautonomous unit within the Ministry of Agriculture, Animal Industry and Fisheries.
- **Decentralizing responsibility and funding for agricultural advisory services** from district governments to farmers' organizations and their local governments. Central government will provide matching grants to district governments. District governments will channel the funds to farmers' organizations and local governments to use to hire experts on specific technology, market development and other areas important to farmers.
- **Increasing outsourcing of services** by providing incentives to districts to reduce the number of extension agents they employ as civil servants and to use contracted services instead. To ensure that service providers are qualified and perform as expected, the government will set and enforce standards for qualifications and performance. It will also provide training to civil servants made redundant through the reforms to ease their transition to employment in the private sector.
- **Boosting cost-sharing** by gradually and deliberately raising fees to local governments and farmers for extension services.
- **Improving donor coordination** by requesting donors to make a joint commitment to the program and use a common mechanism to finance it.

Source: World Bank, 2001c

Long experience shows that constructing roads, building clinics, or installing water pumps is not enough. Roads deteriorate, clinics go without health care workers or medicines, and water pumps break down, never to be repaired. In many cases this occurs because governments and donors decide where infrastructure is built, and what levels and quality of services will be provided. They do not always pay sufficient attention to how resources for operations and maintenance will be generated. Nor do they provide the local staff and community members with the skills and support needed to successfully manage, operate and maintain the systems for which they are responsible.

These difficult lessons have led to a fundamental rethinking of the roles of governments, donors, nongovernmental organizations, communities and the private sector in providing and operating rural services and infrastructure, and of the strategies needed to raise investment in rural services and infrastructure and ensure that the benefits reach the poor. Models of delivery of services are in a period of transition, away from centrally-controlled public sector provision, to more private, demand-driven and decentralized models, and therefore increasingly in line with the institutional development principles discussed in the first section. The public sector provides incentives to bring in private investors, assures access, contracts with private firms to provide public services, and provides services directly only in cases where the private sector declines to enter even under conditions of partnerships.

Many of these latter instances occur in rural areas, since the costs of constructing rural infrastructure are high and the ability of rural clients to pay is limited. Private investments in infrastructure are more likely in rural towns than in the hinterlands. Even though costs may be too high to attract private providers, minimal national standards of service apply. Continued provision of services by the public sector in these cases can be justified according to national commitments to minimal standards, as temporary interventions to reduce poverty, and as instruments to reduce risks associated with isolation and the absence of services. In such cases, a heightened role for communities and local governments is particularly important to avoid the observed problems of the past.

While the new strategies vary by country and by sector, many attempt to:

- Create a national framework that identifies priorities for rural investments as part of a national network of services and infrastructure, and specifies roles and responsibilities of various actors in delivering services. This builds coherence by linking rural services with services delivered nationally. For example, rural transport is conceived more broadly than simply roads. Rural footpaths link to regional roads, which join national roads, each of which is managed by a different level of government. A national road transport policy framework specifies priorities for investment, indicates how resources for investment and operations and maintenance will be mobilized, and assigns responsibilities for managing activities at various levels. The national framework also links provision of infrastructure with development of transport services, including non-motorized, low-cost forms of transport, such as bicycles and draft power.
- Decentralize resources and responsibility to the lowest level decision-making body capable of delivering the services. Decentralization can lead to services that better match local demands and needs. It will also promote ownership, transparency and accountability, and improved professional performance of teachers, health care workers and other service providers. Decentralization should give local governments a predictable, transparent share of revenue and recognize the appropriate locus of decision-making. For example, in the case of energy and telecommunications, the decision to invest resides largely with the private sector, while the government's role is to attract investment and provide incentives for equitable provision. On the other hand, the decision to improve the rural road network is made largely by public entities at various levels, while water supply and sanitation decisions are generally made at the community or household level.
- *Provide communities with a range of levels and options depending on the scale and nature of rural infrastructure service.* Individuals, communities and investors should be allowed to choose from a range of technical options, since the implications for management and maintenance may differ.
- *Provide access to primary education and basic health services without fees.* These basic services contribute to the public welfare. Provision without fees is a key element of the effort to reduce and manage rural risks.
- *For services other than basic health and education, allow providers to charge fees adequate to cover their operating and maintenance costs, and some or all capital costs.* In the past subsidies for services have gone mainly to the non-poor, and have often left service providers with too few resources to expand to meet demand from rural households and enterprises.

- *Empower communities to take the lead in the delivery of services and infrastructure.* Empowering communities to take the lead promotes ownership and sustainability, and builds capacity for future development undertakings. Rules of participation must assure that poor and marginalized people have a voice in the community in order to prevent the local elites from capturing the benefits.
- *Adopt approaches that specifically target the needs of women and girls and raise their status.* Approaches may include guaranteeing women and girls a role in community decision-making bodies and measures to enhance their income generating opportunities. Finding ways to keep girls in school is important. Employing female teachers in rural schools and giving them responsibility for teaching advanced students can help motivate older girls to stay in school by demonstrating the value of education.

Expanding Access to Rural Financial Services

A sustained process of income generation will require improved access to rural financial services, including savings, credit, insurance, collateralization of fixed and moveable property, transfer of funds, trade finance, and more complex financial instruments and transactions. The agenda for rural finance is multifaceted because the array of providers and clients and their needs are diverse. Out-grower schemes and suppliers' credit are important for producers of cash crops that require processing, such as coffee and cotton. Producers of food crops, livestock, and crops not needing extensive processing have traditionally not received financing through out-grower schemes, and have expected some form of officially provided credit, most of which is no longer available. Some of these producers, particularly those raising livestock, may have assets they can use as collateral. Attention to the legal framework for collateralization of moveable property, improved registry of liens, and improved contract enforcement could provide these producers with better access to credit, either individually or as part of voluntary groups. In many cases, however, producers should expect to finance most of their working capital needs out of savings, or should leverage accumulated savings as collateral for loans. Thus programs that reduce the transaction costs of saving or increase the incentives to save will improve access of many small-holders to capital.

A major focus of the rural financial strategy is thus to bring the commercial institutions closer to rural clients, and to make the clients more attractive to service providers. Even with a successful rural finance strategy, however, a large number of rural clients will not be served under conventional terms. In these cases, grants coupled with technical assistance to achieve higher earnings and build savings are the best approach. Similarly, some entrepreneurial initiatives of producers' organizations or community groups can receive financing through a blend of own contributions, matching grants and commercial loans. In such cases, care must be taken to assure that the grant element supports rather than displaces commercial financial activity.

Improving Water Control Systems

In Africa over 95 percent of cultivated land is rainfed. Many of these lands are in arid or semiarid areas where rainfall is unreliable and crop failures are common. Providing water at critical stages of plant development (such as the flowering stage of maize) can dramatically reduce risks of crop shortfalls. Increasing yields on rainfed lands by just 10 percent would have a greater impact on total agricultural output than doubling areas under irrigation, even though productivity on irrigated lands is two to four times that on rainfed lands. Moreover, such improvements would benefit mainly poor farmers living on rainfed lands, without access to large irrigation schemes.

Increasing availability and control over water in rainfed areas through simple actions to harvest and store water, and/or to improve drainage, could thus make a major contribution to reducing poverty and increasing security of Africa's rural poor. Some promising technologies include micro-irrigation, surface storage, water harvesting, water conservation, collection and storage of rainwater, and recession agriculture. Where groundwater resources are available, low-cost technologies such as treadle pumps, simple bucket and drop lines, and small portable pump sets have proved popular among farmers. These technologies are supplied mainly by the private sector, supported by a network of small local maintenance and construction workshops. Farmers pay the full costs of operating their pumps, so they tend to use water productively, which reduces the impact of irrigation on downstream water users and the environment. Nonetheless, groundwater is a common property resource and there is a danger that, collectively, farmers in an area could seriously deplete groundwater resources. Where groundwater supplies are vulnerable, abstraction must be regulated. Additional efforts in research and extension are needed to identify appropriate technologies for management of water and to educate farmers on their use.

Expanding irrigated agriculture also offers considerable potential in Africa. Many large irrigation schemes built in the past, however, have neither generated adequate economic rates of return nor benefited poor small holders. On average, irrigation systems in Africa have cost US$8,300 per hectare to construct; more than three times the average of systems in South Asia (US$2,500), largely due to poor contracting practices (IFAD, 2000). Large schemes have often been poorly managed, providing water at highly subsidized rates that encourage misallocation of water resources and fail to generate resources for operation and maintenance. This has led to a deterioration of distribution systems and a decline in irrigation services. It has also resulted in some cases in environmental damage including water logging, salinization, contaminated runoff, erosion and land degradation, and rise of water-related diseases such as bilharzia and malaria. Furthermore, farmers with political connections have benefited most from irrigation. The poor have upon occasion been pushed off land that suddenly became more valuable with the advent of irrigation. Women are particularly vulnerable to eviction as they often have insecure property rights to farmland.

In the future, more attention must be paid to designing systems of irrigation and water control within a framework taking into account the many competing demands for water, including drinking water, power generation, industrial and environmental uses. Legal and institutional frameworks for sustainable water management are needed. Water boards comprised of stakeholders from the various groups can be given responsibility for mediating competing claims for water, setting an agenda for future allocations, and advising on key policy issues that affect water distribution among users.

Land Policy

How access to land is regulated, rights defined, and conflicts surrounding its use are resolved influences the distribution of wealth and power among households and groups. Land issues affect rates of investment, and hence growth, influence public finance through their impact on taxation, and affect social stability with its implications for foreign investment. Among the many issues relating to land in Africa, three are foremost: security of tenure (especially for women), distribution of ownership and access, and management of natural resources. Present forms of tenure do not provide sufficient security to support investment, to facilitate mobility of resources needed in a dynamic economy, and to protect the vulnerable under increased population pressure and high mortality. The historical legacy has resulted in unequal distribution of land and problems of access in many places, but most acutely in Southern Africa. Problems of tenure and access contribute to the degradation of land and poor management of natural resources, such as forests and wildlife.

The period of the 1990s was one of intense activity in reform of the legal framework governing issues of tenure and distribution of land throughout much of Africa (see Wiley, 2001 for a summary of activity in Southern and Eastern Africa). As a result of these legal reforms, a massive agenda of implementation lies ahead in a number of countries. At the same time, tenure systems are still in transition in much of the continent. Frustrated demand for land has created conflict based on legitimate grievance, as well as fertile ground for politicians who choose to exploit the issue for political gain.

Achieving Security of Land Tenure. In Africa traditional systems of land tenure in the past generally provided effective security for most community members. Arguments that traditional tenure should be converted to free-hold or forms with similar security and formal titling in order that land could be used as collateral were in many cases unconvincing because financial institutions were not yet able or willing to accept small holdings in pledge. The benefits of enhanced financial flows due to the conversion of traditional tenure did not appear to outweigh the costs of conversion and titling. Moreover, tenure reform raises controversy for political, social, and cultural reasons. Where women's rights to land are not yet enshrined in law or fully accepted in custom, conversion of complex traditional tenure, with primary and secondary access rights, to free-hold has a risk of disenfranchising those with rights of secondary access, many of whom are women (Wiley, 2001).

As rural financial institutions grow, however, and as costs of accessing services decline, the weight of costs and benefits shifts in favor of tenure reform. Moreover, population pressure, urban encroachment, and high mortality from HIV/AIDS are all exerting pressure on traditional systems of land tenure. With present patterns of mortality associated with HIV/AIDS in much of Africa, traditional tenure does not necessarily protect the vulnerable. Under many traditional systems widows and orphans lose access to land upon the death of a male head of the household. Disincentives for investment present in the past may not have had much impact when rates of return to investment were low. Even in subsistence agriculture, however, insecurity of tenure impedes investment. Individual small-holders contemplating small investments on their own holdings financed either through savings or through their own labor, such as introduction of improved water management, may be unwilling to do so without assurance that they or their heirs will retain the land. Women in Uganda reported that they altered their allocation of labor and investment in land in recognition that they could be evicted in the event of divorce, argument, or bereavement. Instead of paying for trees or soil conservation, they invested in activities less tied to land, such as their children's education. "Women pointed, as did district agricultural staff, to the generally greater productivity of farms run by single or divorced women in their vicinity (Wiley, 2001)."

Open national economies and flows of capital increase the need for reform in tenure by raising potential rates of return to investments in rural areas for those who can access land. Traditional tenure raises barriers to investment in processing facilities and in out-grower schemes, both of which offer substantial benefits to resident small-holders. Recently passed land laws reflect demand for increased security of tenure at the household level, although the tenure arrangement may not be classical free-hold in all cases. The process of implementing the land laws will be a sustained one requiring time and assistance.

Addressing Unequal Distribution of Land. The unequal distribution of land is a major issue in South Africa, Zimbabwe, Malawi, Mauritania, Rwanda, Kenya, Mozambique, Ethiopia and Nigeria. In some countries, such as South Africa and Malawi, the issue is potentially explosive and could lead to a major crisis. South Africa has adopted a program of redistribution, but implementation has lagged despite the evident high risks of delay. In countries where tensions are growing, but still under control, appropriate measures may include selective redistribution of land and strengthening systems of land administration to facilitate normal transactions. Issues of access to land can be addressed separately from issues of tenure security where tracts of land already held under free-hold either by the state or by willing private sellers provide a potential supply. In other cases distribution and tenure reform must be addressed simultaneously. Finally, where conflict over land issues has already erupted on a major scale (Zimbabwe, Côte d'Ivoire), assistance will be needed in formulating and enforcing policies that address the causes of the conflict and financing investments to implement the new land relations.

Improving Management of Natural Resources. Africa still has large areas of land managed under open access regimes. Experience shows that these lands can be managed well by communities if they have formalized tenure rights and, in some cases, return of previously expropriated lands, as well as technical assistance and training. Difficulties arise when communities have overlapping claims to use of open areas, or when competing uses within a community conflict. In these cases combinations of mediation and/or law enforcement are needed to prevent or contain conflict.

Improving Management of Livestock Production Systems

Livestock in Africa are raised under regimes of pastoralism, mixed agriculture-herding systems, and intensive, commercially-oriented schemes. Pastoralism supports the largest number of people and contributes the most to GDP and exports. Intensive, commercial systems, which often operate in peri-urban areas and produce poultry, pigs, and milk for consumption of city dwellers, are growing rapidly and will become increasingly important with continued urbanization. Africa's livestock sector shows potential for significant growth without raising the environmental issues associated with intensive livestock systems of Europe and North America. Demand for meat and other livestock products globally is projected to grow substantially, and Africa's resource endowment places it well to produce competitively for domestic, regional, and global markets. In order to realize the potential, the public sector will have to invest significantly in research to improve breeds and control disease, in setting and enforcing standards for animal health, and in providing the infrastructure for processing and trade of animal products. Appropriate public investments can generate significant private response. At present, animal numbers in many countries are declining.

Pastoralism. Herding is a way of life in which the entire family is involved, and in which social organization, environmental management, and production systems are all interlinked. Herders often travel with their goats, cows, camels, sheep, donkeys and horses over long distances, in arid lands with highly unpredictable rainfall patterns. They face both high risks of weather and significant price volatility, in response to which they have developed sophisticated coping mechanisms.

Governments and their development partners face several key challenges in assisting pastoralists. Providing services to mobile communities requires special approaches to delivery. Needs and demands of pastoralists sometimes conflict with those of transhumants and settled farmers for access to land, water and other natural resources, and governments are called upon to mediate and/or enforce laws. Pastoralists are frequent victims of natural disasters requiring public intervention.

In the past, governments and development practitioners often tried to encourage pastoralists to settle in villages and use surrounding land more intensively for livestock production or agriculture. They supported construction of boreholes and dams to increase permanent supplies of water. This approach largely failed, because the arid pasturelands could not support intensive use without lengthy resting periods. It is now generally accepted that wide-ranging herding is the best use of the dry lands, and that assistance programs must support a mobile way of life. Some of the best projects assisting pastoralists now incorporate the following principles:

- Adopt a bottom-up, demand-driven approach in which pastoralists participate fully in decisions that affect them.
- Provide technical assistance to enhance pastoralists' skills in forming community-based organizations, assessing environmental conditions, negotiating and resolving conflicts with others, developing and implementing community-based land use plans, and monitoring and evaluating results.
- Help with clarifying land rights and with establishing mechanisms for resolving disputes over access to land, water and other natural resources.
- Develop and maintain early earning systems for drought, strengthen drought management capabilities, and build on customary coping strategies.
- Create flexible designs for projects, to allow them to adapt to lessons learned through experience.

Projects based on these principles are being implemented successfully in Burkina Faso, Chad, Mali, Mauritania, Niger, Kenya, and Senegal. Participating pastoral groups and outside evaluators report that conditions of rangelands are improving, conflicts with other land users are declining, milk and meat production is rising, and the quality of life in communities is improving. Promising approaches are now being expanded to include many more communities in the project areas.

Agro-Pastoralism and Intensive Livestock Production Systems. As with other productive activities, in most countries of Africa the state is withdrawing from direct livestock production and restricting its role to that of providing an enabling environment within which private producers can function. For example, the government of Guinea began restructuring its role in livestock production in 1987, by focusing on providing public goods, such as research and disease surveillance, and devolving other responsibilities to the private sector, decentralizing its continued operations, and promoting the formation of producers' organizations at both local and national levels. The results have been impressive. There are now over 1,000 active local producers' organizations that collectively wield considerable political power. Private enterprises operating in the sector are numerous, dynamic and competitive. Livestock production has grown at an average rate of 4 percent a year, higher than in any other West African country. Exports of livestock products have also grown significantly. Guinea's experience offers positive lessons for other countries in the sub-continent.

Enhancing Management of Natural Resources

Africa's endowment of natural resources is rich, but the environment that they jointly comprise is complex, fragile, and rapidly degrading. Soils are under stress from poor cropping practices and increased exposure to wind and water. Africa is subject to extreme annual variability in rainfall of plus and minus 35 percent, bringing poorly predictable droughts and floods and massive macroeconomic shocks. Despite higher than average variability in supply of water, the region has very little storage capacity. For example, in Ethiopia 43 cubic meters of water are stored per capita, compared to 746 cubic meters in South Africa, and 6,150 in North America. Forests, wetlands and rangelands are all receding or degrading at a rapid rate across much of Africa. Many coastal, marine and freshwater fisheries that provide protein for a large part of the population are threatened by over-fishing and by reduced surface water flows and pollution. Africa leads the world in the burden of disease arising from unclean water and poor sanitation, malaria and (together with India) indoor air pollution.

Africa is very diverse? ecologically, socially and politically. Countries are using a variety of approaches to improve management of forests, biodiversity, soils and water resources, including policy reforms and decentralization, changes in regulatory capacity, and strategies to increase participation and empowerment of communities. Important among these are efforts to:

- Avoid harm, through prior screening and use of environmental assessments
- Mitigate adverse impacts identified in the environmental assessments through environmental management plans and other measures
- Empower communities and individuals to take full responsibility for managing natural resources and contributing to their sustainable livelihood
- Mainstream environmental issues into broader development programs through environmental support programs and other capacity building efforts
- Address past damage and assist communities to improve their management of natural resources through focused investments

- Improve incentives for long-term environmental stewardship rather than short-term exploitation, such as through introducing predictable natural resource charges or taxes, transparent systems of forestry concessions, sustainable management plans, etc.
- Establish regulations and laws to protect the environment and build capacity to enforce them.

Because of the importance of land and water to the rural poor, the Africa Region's strategy includes a focused effort to address problems of soil degradation and management of water. Most of the land in Sub-Saharan Africa lies within international river basins. Management of water in one country may bring benefits or costs to neighbors upstream or downstream. At the very local level, known technologies, if adopted, could offer agricultural producers substantially improved incomes now and in the future due to improved soil fertility and sustainable management of water.

The Africa Region of the World Bank has cooperated for a number of years with the FAO and other partners under the Soil Fertility Initiative to identify improved technologies suitable for African conditions that reverse soil degradation. A number of countries have developed soil fertility strategies and action plans. The efforts have heretofore had limited impact because they are not fully integrated into operational efforts of the Bank, or mainstreamed through extension in the countries. The Soil and Water Initiative will attempt to remedy this through the implementation of known approaches and the discovery of new ones.

The Soil and Water Initiative of the Africa Region will have several key components:

- Assistance to national governments to improve policies, regulations, and organizations better to manage water;
- Identification of promising existing and new agricultural technologies for better soil and water quality through pilots under GEF and other sources of support;
- Testing of technologies within the national programs of research and extension, and through participatory trials in farmers' fields;
- Use of matching grants through CDD operations to enable poor producers to adopt the technologies and remain committed to them over the period needed to achieve the improvement sought (i.e., through several rotations, or a period of fallow);
- Continual sharing of experience between and among farmers and with assistance of extension agents and other advisors.

The operational innovation in this approach is the use of matching grants to mainstream testing and adoption of promising technologies. In the past extension agents may have informed producers about alternative technologies, such as conservation tillage, no till, new rotations, agro-forestry, composting, and other approaches, but farmers could not carry the cost or risk of adopting the new approaches. The sharing of costs by the public sector recognizes the shared benefit from the demonstration of successful (and failed) technologies, as well as the elevated perception of risk during the period of innovation. While matching grants are made available, producers are encouraged or required to make savings deposits so that at the end of the grant period, they will have sufficient resources to continue to use the technology.

The soil and water initiative of the Region is thus in essence a combination of improved policy and regulation, discovery of appropriate technologies through research and piloting, and adoption of the technologies with the use of CDD interventions. In addition, the Region has several operations that take a basin-wide approach to management of water resources, through reforms in policies and regulations, creation of local and regional boards to manage allocations and arbitrate disputes, and small local investments to facilitate sustainable use of the managed resource.

Reducing Risk and Vulnerability

Rural Africans face multiple risks everyday, and have few instruments for mitigation other than the traditional ones based on family relationships and livelihood strategies. Many people lack knowledge of new land, water and pest management practices and so cannot curb their exposure to weather-related risks, pests, and plant diseases. They have little or no savings and limited access to instruments designed to smooth income and minimize risks, so are severely affected by harvest failures and fluctuations in price. They lack access to transport and communications. Isolation of many communities reduces their ability to sell bumper crops and to buy in lean years, and hence exacerbates the volatility of prices.

Rural households and communities have developed strategies for mitigating and coping with risk. To lessen the impact of shocks, households attempt to diversify their sources of income by planting different crops and plots, working for other farmers (through sharecropping or wage labor) and combining income from sources on and off the farm. Families establish self-insurance networks through marriage and extended ties and investment in social capital (networks, reciprocal gift giving, and hosting of lavish ceremonies). To cope with shocks when they occur, rural people draw down their savings, take out loans, reduce their expenditures by taking children out of school, increase their family labor supply by involving more members (women, children and the elderly), or migrate to unaffected areas. When all else fails, they sell their meager assets and go hungry.

These strategies provide only limited protection against fluctuations in income and consumption, especially when compared with the options open to urban people. Some of the latter may be eligible for social security or unemployment insurance. They may have access to hazard insurance for their main assets, and life and/or health insurance. They can hold several jobs, and switch jobs when needed. They can save in conveniently located banks, and may belong to burial societies and other savings groups. And when all else fails, they can go back to their villages of origin for temporary periods. Rural Africans, in contrast, often face restricted opportunities to diversify income, because income-earning opportunities tend to move together. The onslaught of HIV/AIDS has heightened preexisting risks and disrupted traditional coping mechanisms. Moreover, some strategies to reduce risk and cope with shocks, such as rejecting labor intensive agricultural technologies, taking children out of school, and reducing consumption of nutritious food (especially of women and children) trap families in poverty. Community and group-based mutual assistance mechanisms also break down during periods of prolonged or widespread stress, since nearly everyone is affected simultaneously. Where conflict has displaced many people, as in Eritrea, host families and communities have required outside assistance to avoid being overwhelmed. People who are unable effectively to diversify risks are not likely to adopt new technologies because they cannot afford the down-side risk. Unmanaged risk thus impedes growth by inhibiting the adoption of new technology.

To assist households and rural enterprises to deal with risk, governments in Africa have traditionally provided mechanisms to lessen the impact of shocks or help people cope when they occur. These include price stabilization boards and funds, government-sponsored crop insurance, generalized consumer and producer subsidies, subsidized micro-credit, public works programs, public pension schemes and others. Other interventions, such as subsidies to increase mono-cropping of maize that were common in Southern Africa in the past actually increase rural risks. Overall these interventions have proven ineffective and costly. Thus, improved approaches to help Africa's rural people manage risk are needed.

A first priority is to reduce risks through such general measures as prudent macroeconomic management, and improvements in the way rural institutions work discussed above. Risks can also be reduced through basic public health programs, including widespread immunization and cost-effective nutrition interventions, educational policies that guarantee poor children access, and actions to stop conflict and enhance security. Investment in infrastructure and measures to help farmers gain access to drought and disease resistant crop varieties can assist rural people to reduce the variability of income. Improved transport and communications reduce costs of marketing, and hence lower the costs of local variability in production. Cellular telephones and wind-up radios are innovations that greatly improve prospects for affordable communication, and rural people are already benefiting in countries where regulations allow competition in the provision of cellular service. Improving access to rural financial services (savings accounts and credit) facilitates the production and retention of assets in poor years. In each of these areas, the public sector can make a substantial and positive contribution to reduction of risk without incurring unsustainable costs or undertaking activities that crowd out the private sector. Other strategic approaches to managing risk include efforts to:

- *Focus on the most compelling risks.* Concentrating on finding solutions to the most severe covariate or community-wide risks affecting a country or region will save many lives and reduce hunger and malnutrition when adverse conditions inevitably arrive. Countries vulnerable to drought, such as Eritrea, have created drought early warning systems, mechanisms for mobilizing international assistance and effective administrative structures to handle distribution of emergency assistance. This has prevented drought from causing widespread famine.
- *Find alternatives to the most harmful coping mechanisms.* Removing a child from school to help a family meet short-term needs for cash has long-term consequences for the child, the family, and for society. Reducing consumption of nutritious foods, especially of children and pregnant and lactating mothers, can cause a lifetime of disabilities. Direct interventions to enable the poorest families to keep their children in school and well nourished and to avoid asset depletion or distress sales during emergencies are appropriate activities for public support. Programs must be well targeted and fiscally sustainable. Some successful approaches to targeting include assigning geographic weights to the poorest areas, asking communities to identify their neediest members, targeting beneficiaries on the basis of size of landholdings, and offering food or cash for work at minimum wages.
- *Give high priority to stopping the spread of HIV/AIDS and malaria and helping communities cope with its impacts.* Poor households facing HIV/AIDS are less able to cope with loss of labor and are more likely to dispose of assets to meet medical and funeral expenses than are more prosperous families. Governments and development partners should target assistance to the poorest households, especially in the period immediately following death, when families are struggling to reorganize their production systems. Programs managed by communities that allow rural people to design and implement their own approaches are proving effective when they are linked to local and national governmental structures. As costs of treatment for HIV/AIDS begin to fall and access to medication increases, measures should be taken to assure that rural people as well as urban can benefit.
- *Share risks and costs of adopting new technologies by offering matching grants to producers' organizations and other groups.* Early adopters demonstrate to others the benefits of new technologies, and they also bear high risks. Unwillingness or inability of very poor farmers to take downside risk can discourage them from adopting new approaches even if they correctly perceive the likely benefit. The public sector can share risks through matching grants to encourage recipients to adopt new technologies, and initiate their wider acceptance by others. Wider adoption can, in turn, reduce risk and improve management of it through complementary developments in infrastructure, finance, and marketing that accelerate as production and productivity of agriculture rise.
- *Explore innovative approaches to assisting producers and local governments to diversify risk through insurance.* Some producers will choose to purchase insurance to protect against fluctuations in the price of a major crop. Experience in developed countries suggests that many middle and high-income producers will not buy insurance if they face the full actuarial cost of the policy. Pilots under way at present are testing the demand of small-holder producers of coffee in Tanzania for protection against fluctuations in coffee prices. If small-holders are willing to pay a portion of the actuarial cost of well designed insurance schemes based, for example, on objective readings of weather risk, such as

rainfall, and if reduction of risk allows decisions that stimulate rural growth (such as adoption of new technology, greater willingness to invest in non-farm enterprises, etc.), public intervention to pick up the remaining cost of the insurance would be justified as an efficient instrument to reduce poverty. Even if producers choose not to insure against price fluctuations, local governments may find it useful to so insure when a large portion of locally generated revenues derive from a single crop. At present local governments facing new and demanding obligations to provide services have been observed to increase tax rates when commodity prices fall, in an effort to stabilize their own revenues. The deleterious impact on producers is clear, and local governments may need assistance to find other ways to reduce the variability of their revenues.

4. What the Bank Will Do to Support Efforts of Rural Africans and their Partners

What Are We Doing Now?

The vice president leads the Africa Region's efforts to contribute to reducing rural poverty, with instruments consisting of the entire portfolio of projects and non-lending services. At the country level, the country director serves as the chief spokesperson for the rural poor in designing the country assistance strategy and the programs to implement it. Technical staff of the rural development, environmental and social, and other sectoral families contribute to the effort. Given the multi-sectoral nature of the task, staff in the rural development units contribute to the effort, but cannot carry the responsibility by themselves. Accountability for measurable results rests with the country directors and the entire country team.

The program is varied and covers 48 countries. The Africa Region's portfolio consists of 426 operations, many of which contribute directly or indirectly to rural development. The pipeline for the next three years consists of about 80 new lending operations per year. As the program evolves, the Africa Region's lending operations increasingly fall into four broad categories: budget support, community driven development, capacity building, and stand-alone large investment operations, such as those in infrastructure. Among the products in the work program, the following are most relevant to rural development:

- *Analytical and Advisory Services.* Many countries in the Africa Region are preparing poverty reduction strategy papers (PRSPs) and designing expenditure programs for support under the Highly Indebted Poor Country (HIPC) initiative. With the greater role of the private sector after the reforms of the 1990s, analyses to identify constraints to private activity becomes increasingly important. The Africa Region is increasing its commitment to analytical and advisory services, much of which are devoted to identifying constraints and assisting in the design of appropriate programs of public expenditure. A portion of the increase will focus on improved tracking of indicators of poverty, including the spatial dimensions, and improved monitoring and evaluation within projects and programs.
- *Multi-Sectoral Poverty Reduction Support Credits (PRSCs).* These provide budgetary support to countries implementing well-defined strategies to reduce poverty. They support rural programs to the extent that rural development is specified as a key element in a country's overall poverty reduction strategy. The nature of support depends on priorities in the country's budget, usually expressed in a medium term expenditure framework. Impact is measured against a combination of outcome indicators and reforms adopted. PRSCs are appropriate when a country's budget management and public procurement procedures are sound. Uganda has pioneered the PRSC operations in Africa, and the second Ugandan PRSC will support the country's Program for the Modernization of Agriculture (box 6). This new approach offers considerable potential for enhanced impact through increased ownership by the country, flexible implementation, and better coordination among donors.
- *Projects Supporting Decentralization.* These assist in developing the fiscal and administrative architecture for decentralization, provide technical assistance to build capacity of public entities facing new challenges, help put into place processes for participation and mechanisms to enhance accountability, and support design of systems of monitoring and evaluation.

- *Community Driven Development Projects*. These are closely linked to decentralization, and focus on improving community participation in setting priorities, design and implementation of projects, creation of the financial architecture and accountability mechanisms to get resources to community groups, strengthening of local government, transfer of resources to the community level, and monitoring and evaluation. The community driven approach is multi-sectoral, demanding close coordination between specialists of different sectors. Increasingly support for decentralization and community driven development is designed within one operation.
- *Rural Finance*. Recent efforts in rural finance in the Africa Region have stressed sustainability of institutions, regulatory reform, and development of micro-finance. Because the former programs of directed credit for agricultural production are widely perceived to have failed, they are not being replicated. Yet the present focus in rural finance leaves many poor rural clients without key services for savings, money transfer, and borrowing. New approaches combining matching grants and partial loans, better access to savings, improved collateralization, and insurance offer prospects to reach more rural clients with financial services on a sustainable basis. As levels of poverty decline, more rural people will be attractive clients for financial institutions. The most appropriate instrument for the very poor, however, will continue to be matching grants with labor services constituting much of the contribution of participants.
- *HIV/AIDS*. Because of the catastrophic implications of HIV/AIDS for African development, prevention and mitigation of HIV/AIDS has been mainstreamed into most of the projects in the portfolio, either in the design stage or through retrofitting of components. In addition, the region has designed a generic rapid-response multi-sectoral intervention called the Multisectoral AIDS Program (MAP) that makes resources available through streamlined approval procedures to multiple countries in support of rapid, multilevel responses where commitment to addressing HIV/AIDS is demonstrated. A significant portion of funds flow directly to communities to carry out programs of their own design under simplified procurement guidelines.
- *Agricultural Research and Extension*. Projects supporting agricultural services focus on institutional reform and development, and are increasingly responsive to the needs and requests of producers, and incorporate innovative features in finance, such as competitive grants, cost recovery, and matching grants. Stronger linkage between research and extension is still needed, as is better integration with new developments in global agricultural research. The ESSD family within the Africa Region is designing a new multi-country instrument to support generation and adoption of agricultural technology.
- *Management of Natural Resources*. Africa's natural resources are valued at many levels, from the very local to the global. Because of the global dimension, projects supporting forest preservation, biodiversity, carbon enhancement, management of soil fertility, watershed management, and coastal protection are supported under grants from the GEF, increasingly with blended GEF/IDA resources. Separate IDA credits support activities primarily of national or local significance.
- *Environment*. The Bank assists clients to mainstream environmental concerns into decisions on policy and investment, through advice on policy and regulatory issues, technical assistance to help ministries and departments of environment increase their capacity, investment projects, and grants for global environmental priorities. All projects are evaluated to ensure that relevant safeguards are met.
- *Basic Education and Health Care Services*. The Bank in the Africa Region supports access to basic health care and primary education without user fees, in recognition that these contribute substantially to the public welfare and to poverty reduction. When, for fiscal reasons, governments levy these fees, the Bank works with governments to reduce the burden on poor people, by recommending (and providing financing for) targeted subsidies. In some cases, these subsidies go beyond eliminating user charges for poor people and provide a positive incentive for parents to send their children to school. This approach has proven especially powerful in encouraging parents to enroll their girls in school. In the case of immunization, maternal and childcare, and certain interventions for

tuberculosis, HIV/AIDS, sexually-transmitted infections, and malaria that have large benefits for the community and vulnerable groups, the Bank discourages user fees and helps countries find better ways to finance these activities.

- *Water Management and Irrigation.* Water management projects increasingly focus on simple designs that can be implemented and managed by communities as part of community driven development operations. Given the increasing importance of water in the region, more will be done to help countries and communities manage shared water resources, particularly multi-country river basins. With regard to large-scale irrigation schemes, emphasis will be on assuring that any schemes constructed can be made financially sustainable and will have strong institutional arrangements for maintenance. Benefits for the poor and women are explicitly addressed in work on irrigation.
- *Infrastructure.* Africa's rural roads are expensive to build and even more expensive to maintain. Functioning rural roads require support at the national and local levels, and this can be achieved through a combination of budget support or sector programs, decentralization, and Community Driven Development. Cellular technology and new designs in off-grid power generation and nontraditional sources of energy, when coupled with basic regulatory reform, offer exciting new opportunities to reduce the shortage of rural infrastructure. Some of this investment is being undertaken by the private sector. Innovative public-private partnerships are drawing private providers into activities that they would be unable or unwilling to take on alone. Increased emphasis is placed on trans-national infrastructure projects.
- *Land Reform.* Land reform is an important issue in the region, and one underrepresented in our portfolio of assistance. Support for land reform addresses issues of the distribution of ownership, tenure security, and resolution of conflicting claims. Programs of market-assisted land reform can work well, and the Bank has assisted in their design in several countries. Implementation has been less active, either because countries choose to implement on their own (South Africa) or because conflicts over land escalated before implementation could get under way (Zimbabwe).
- *Post-Conflict Assistance.* The Africa Region is helping several countries (Eritrea, Sierra Leone, Democratic Republic of Congo, Burundi, Rwanda) recover from conflict. Programs often include assistance to rebuild rural infrastructure, help displaced rural people and demobilized soldiers return to their villages and reestablish their livelihoods.

Box 6. Poverty reduction support credit helps Uganda promote rural development

Increasing agricultural growth, diversifying production and expanding non-farm employment in rural areas are essential for poverty reduction in Uganda. The Government's Plan for Modernization of Agriculture provides the strategic and operational framework for environmentally sustainable rural development and agricultural transformation from subsistence to commercial agriculture. Although it does not provide a detailed plan of action, it does describe the types of interventions required to promote rural development, define the responsibilities of the public sector, private sector and civil society in this effort and outline participatory processes through which interventions will be designed. The plan aims to increase incomes and improve the quality of life of food crop producers (who are mostly women and mostly poor), and promote food security. It identifies six core areas for public action in agriculture and rural development: research and technology; advisory services; education for agriculture; providing a framework for rural finance; sustainable natural resource use and management; and strengthening of land rights and land administration.

What Will We do More of? What Will We do Differently?

The Africa Region in the World Bank is taking a number of steps more sharply to focus its programs on poverty, which implies a shift toward rural priorities. Poverty reduction strategies designed by the countries are intended increasingly to be the foundation for country assistance strategies of the Bank. The process is still young, and not yet equally embraced throughout the region, but familiarity is growing and the quality of the strategies improving. The Region is using its commitment to increase economic and sector work to assure that the PRSPs of the future can draw on solid analytical foundations in the spatial dimensions and correlates of poverty and the implications for public expenditure.

The Africa Region is streamlining the portfolio in order to reduce the fragmentation of administrative budgets among many activities, a number of which may not ultimately lead to lending or other interventions with substantial impact. As the number of lending operations declines, some of the costs of supervision will also fall, allowing a shift toward more generous funding for supervision of remaining activities and an increase in resources for preparation.

The Region has drawn on its experience in addressing the HIV/AIDS crisis, and is applying the lessons to other areas. Multi-country AIDS Program (MAP) operations are by definition multi-sectoral, and require teams reflecting a variety of skills and sectoral experience. In order to facilitate the work of multi-sectoral teams, the Region is orienting its training activities toward teams, rather than individuals. This is part of a Bank-wide move, but it is especially relevant in the Africa Region due to the evolution of the lending portfolio.

The experience with MAP is informing efforts to design an effective instrument to provide sustainable financing for generation and adoption of improved agricultural technology, particularly by small-holders. Countries wishing to access resources will design their own programs with needed reforms in research, extension, and support for farmer groups in adoption of improved technology. The programs include investment in public research, competitive grants to fund research by non-public entities, policy and regulatory reforms to attract more private firms into African countries, establishment of new relationships between national, regional, and global institutions, changes in extension to make advisory services available to farmers from a number of providers, and public/private cost sharing in adoption of new technology by small-holder farmers. Once the programs are designed and pass rigorous review, the countries can access resources to support them from a pooled fund at the regional level. Financing will be available on a long-term, rather than a project by project, basis. The instrument is presently under design, and it is expected to be an important feature of the Region's support for increased agricultural productivity in the future.

The Africa Region is decentralizing functions to the country offices, and increasing the number of locally and internationally hired staff in the country offices. With decentralization of functions comes a substantial additional need for training and new definition of working relationships between staff based in Washington and in country offices. The rural family at present has a larger proportion of staff in country offices than is the case of other units in the Region, and with additional training and mentoring, can decentralize more functions to the country offices.

The staff of the rural, environment, and social units work in partnership with other sectoral units within the Bank, with counterparts in government and civil society in client countries, and with other donors. The Africa Region has a strong partnership with the Food and Agricultural Organization in areas of shared interest, such as low-cost water control and land management, soil fertility enhancement, crop intensification and diversification, integrated pest management, statistics, policy analysis and capacity building. Similarly, the Bank has a long-standing partnership in Africa with IFAD and other multilateral organizations. The Bank is strengthening cooperation with the African Development Bank in priority areas, including agriculture and rural development and HIV/AIDS. It is contributing to the multi-donor hub for rural development covering the countries of the Southern Africa Development Community, which was launched in Harare during FY00. It is working with other donors to establish a similar facility in support of food security in the Horn of Africa. Discussions are underway to establish a third multi-donor hub located in West Africa. The hubs will help build capacity in African countries to tackle a variety of regional initiatives, such as improving the regional trade regime and developing common standards for food safety. They will also assist countries to access expertise of the donor community in a coordinated fashion.

With a streamlined portfolio, strong partnerships, renewal within the rural, environment, and social family, and further decentralization, the Africa Region is well placed to make a significant contribution to the reduction of poverty. Most fundamentally, the Africa Region of the World Bank supports the agenda set and pursued by African governments and people. At the regional and continental level, African governments have convened the New Partnership for Economic Development (NEPAD) to articulate and pursue their development agenda.[2] Agricultural growth is among the priorities of the NEPAD, to be addressed through activities that increase agricultural productivity, improve management of natural resources, especially land and water, enhance food security, and increase market access and trade performance.

At the supra-national level through the advocacy mechanisms of NEPAD and through other regional and national efforts, African governments will move to seek increased funding for agricultural research, from an estimated \$1 billion annually at present to a provisional target of \$2 billion over ten years. Correspondingly, the number of agricultural scientists should increase by about 50% net over the same horizon, which implies a greater number taking into account retirements and deaths in the present cohort of scientists. The recently formed Forum for Agricultural Research in Africa will be crafting a new agenda for the regional research institutions and new relations between and among institutions at the national, sub-regional, regional, and global levels.

Attention to regulatory reform to facilitate introduction and application of new technologies is needed to enhance prospects for expansion of private research firms in Africa. Efforts will be made to identify other interventions that would attract major and dynamic private firms in agricultural research and technology.

Implications for the Work of the Africa Region's ESSD Family: The implementation of the strategy has important implications for the future work program of the ESSD family. As part of the renewal effort begun in 2001, the Department is identifying areas for training and staffing in light of business needs that are expected to grow in the future as the strategy is implemented. The initiatives fall into several categories, some of which will be led by staff from the Environmentally and Socially Sustainable Development (ESSD) family, and others of which will be led primarily by other sectors, with contributions from the rural and technical staff.

Much of the work will be multi-sectoral. Poverty Reduction Strategy Credits will, for the near future, be the primary vehicle through which the Bank supports continued progress on policy and regulatory reform, matched with budgetary resources for implementation. The agenda of agricultural policy reform remains large, and we will pursue this largely by contributing sectoral perspectives to PRSC operations. Much of the agenda to improve agricultural competitiveness through better functioning of the private sector will come under the interventions to support capacity building; e.g., in wholesale and retail trade, rural financial institutions, improved functions of national governments (such as statistical reporting and market information), and improved capacity of local governments to provide services. Major infrastructure operations, such as joint national commitments to improve roads leading to a port that serves an entire region may be identified with the participation of rural staff, but are likely to be carried forward largely by staff in the infrastructure units. Stronger collaboration in the identification and design stage between staff in the two families will be important, but less cooperation in implementation is likely to be needed than in the PRSC and capacity building operations.

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2 "The New Partnership for Africa's Development (NEPAD)," October, 2001.

In addition to contributing to the joint activities noted above and leading some of them, staff in the ESSD family will have primary responsibility for operations to support growth in agricultural productivity through generation and adoption of improved technology, transfer of resources to rural communities through operations supporting community driven development with matching grants for a broad menu of activities, and additional work in natural resource management (land, water, and forests). Investments in agricultural research and extension fall under the general category of capacity building, but the size of the needed resource flows and the programmatic design issues argue in favor of supporting these activities through a separate instrument, the multi-country agricultural productivity operations under preparation.

The thematic areas noted above as key to reduction of rural poverty (e.g., land reform) will thus be pursued with a combination of the above instruments (e.g., legal reform under a PRSC to enhance security of tenure, partial grants to finance acquisition of land and start up costs for the farming unit under a CDD operation, and enhanced capacity of local governments to provide services to land reform beneficiaries under a capacity project for local governments). The region is undergoing a transition: from designing projects that finance transactions to support development, to working jointly with clients to design programs that finance systems that support development. Staff will need familiarity with the basic types of instruments, and technical knowledge to address specific problems using the instruments.

The test of the success or failure of this transition will be seen in the indicators of rural poverty in our client countries, rather than in indicators of the sectoral composition of the Bank's portfolio, as reported in figure 1 above. Countries that are designing Poverty Reduction Strategies within the HIPC framework are also adopting measurable indicators to track the impact of the programs. The PRSP process will thus lead to better statistical reporting on correlates of poverty. The staff of ESSD will participate in the process to assure that the indicators chosen appropriately capture rural dimensions of poverty. In addition to the statistical tracking under the PRSP process, the ESSD staff will substantially improve monitoring and evaluation of the impact of programs and projects financed with our support, whether in HIPC countries or others. Efforts to improve monitoring and evaluation will serve as the core of the future analytic work within ESSD in Africa.

Although monitoring of outcomes will be the fundamental measure of our success, we must also have improved ability to monitor the spatial dimensions of our lending program. The region's present coding system attributes the full amount of multi-sectoral loans to the unit that manages the operation. Retention of this practice could lead to dangerous conclusions that staff in the contributing units (as opposed to the managing unit) are not providing services of value to the region's overall program. Successful implementation of this strategy thus requires adjustment in the way the Bank, or at least the region, organizes information about its activities. The spatial dimensions of the various operations must be better tracked, both to assure that resources are actually going to rural areas, and to make explicit the contributions of the various units within the region. A reform of the Bank's coding system for operations has been undertaken, but the ability of the new system adequately to serve this purpose is not yet demonstrated.

5. Conclusions

Africa's rural people can contribute more to their own prosperity and to global growth in the future than they have been able to in the past. The dynamics of rural growth and the factors that promote it are now better understood than before. Rural institutions are stronger in many places and democratic forms of government create opportunities for rural people to express their views and priorities. National governments have tamed fiscal deficits and opened economies in ways that improve incentives in rural areas. People at all levels better understand how to manage natural resources to secure long-term benefits. New investments and developments in infrastructure link once remote areas more closely to their regional and national contexts. African governments are newly committed to address rural poverty and to improve agricultural productivity.

Africans are acting on these opportunities despite formidable new obstacles. HIV/AIDS requires changes in behavior and investment of resources on a scale demanded of few societies or treasuries in more prosperous regions. The scourge of conflict creates new victims and destroys wealth. Natural resources are still subject to predation and degradation. Climate change is likely to hit Africa hard. And many OECD countries, despite rhetorical commitment to liberalization of trade, keep their own markets closed to Africa's most important exports.

The efforts and accomplishments of Africans to reduce rural poverty despite these obstacles warrant dynamic and effective support from their partners. The Africa Region of the World Bank is committed to move on the actions noted above, and continually to seek new ways to assist.

Appendix 1 Summaries of Sector Strategies

Research

What the Bank has done since Vision to Action. Since *Vision to Action* was developed in 1997 the Bank has significantly changed its approach in supporting agricultural research systems in Africa. The Bank is now involving groups outside the public research system to carry out research activities, such as universities, and the private sector; channeling more funds through local governments and farmer organizations; increasing support for capacity building; and sharing responsibilities with other donors in project design, supervision and financing. Projects now generally contain mechanisms to respond to farmers' needs, focus more on poverty and environmental issues, and use better monitoring and evaluation strategies.

Although these approaches are still new, the results are promising. For example, cooperation between international and national research efforts led to the identification of effective biological control methods for two cassava pests (mealy bug and green spider mite). Control of the green spider mite has increased cassava production by 30–40 percent. By 1998 West Africa had gained close to US$50 million per year. Similarly, controlling African cassava mosaic disease has allowed cassava output in Uganda in 1999 to surpass pre-epidemic levels, following a devastating 70 percent decline in production that had occurred earlier in the decade (3.5 to 1 million tons, equivalent to US$60 million) (World Bank, 2001). Research has also contributed to increasing outputs and quality of bananas, potatoes, millet, dairy, beans, maize, rice and livestock (IFPRI, 1998).

What the Bank is doing. The World Bank is the largest supporter of the national agricultural research systems in Africa, providing funding of about US$250 million per year to support research systems in 25 countries. The Bank also supports the CGIAR, which has about a dozen centers and sub-centers in Africa.

Through the Special Program for African Agricultural Research (SPAAR), which has now been replaced by the Forum for African Agricultural Research (FARA), the Bank promoted the emergence of sub-regional and regional research organizations. This will help exploit economies of scale and improve research effectiveness through better coordination. Both are essential to capture benefits from the biotechnology revolution and other scientific innovations. New mechanisms are being designed to increase support for African agricultural research in general, and in particular to support regional collaborative research. The Bank is working with other partners to seek to secure an increase in aggregate investment in African agricultural research from the present approximately USD1 billion annually to USD2 billion annually within ten years.

Management of Water Resources

What the Bank is doing. The Bank recognizes the importance of reforms and capacity building for managing water resources, and is actively assisting the creation of water users' associations and strengthening their capacities to perform their functions well. The Bank is encouraging governments to provide associations with legal status to sign legally-binding contracts, and to give them full financial and administrative control over infrastructure construction or rehabilitation efforts. The Bank also provides support for training and other capacity building measures.

In lending projects, the Bank increasingly approaches water issues from the perspective of the river basin. An example is the Tanzania River Basin Management and Smallholder Irrigation Improvement Project. The project strengthens the government's capacity to manage water resources and address water related environmental concerns both at the national level and in the Rufiji and the Pangani river basins, and improve irrigation efficiency of select smallholder traditional irrigation schemes in these two basins. The project strengthens assignment and management of water rights, increasing penalties and raising fees for water use, and improving information collection and analytical capabilities at the national level and monitoring capabilities at the basin offices in Rufiji and Pangani.

The Bank is promoting private sector involvement in development, operation, and maintenance of infrastructure for irrigation. It is supporting efforts by governments to create a favorable policy and institutional environment through measures such as increasing security of land tenure, reducing transaction costs of land registration, formalizing access to water by issuing water abstraction licenses and enforcing their provisions, creating markets for transfer of water rights, and enacting policies to stimulate development of rural financial markets. In some countries, it is helping governments develop and disseminate information on hydrogeology through groundwater modeling, as in the Nigeria National Fadama Development Project, now under preparation.

The Bank is currently conducting research on a number of topics important for water control and irrigation in Africa. The first is on the feasibility of imposing volumetric charges on water users (of both pump-based and gravity systems). The Bank is also researching how irrigation and water control systems provide differentiated benefits to women and to men. A third area of research addresses environmental issues by looking at traditional technologies that increase productivity of water and decrease use of agro-chemicals.

Rural Finance

Financial services are important to rural clients for many reasons. Financial intermediation makes mobilization of savings possible, with funds available for productive investments. Rural enterprises need a viable system of payments. Financial services allow households to manage risk and smooth consumption. Entrepreneurs can take advantage of market opportunities that contribute to growth. The availability of financial services facilitates the adoption of improved agricultural technology.

Many institutions in rural and micro-finance institutions lack the capacity to expand portfolios, due to low skills, high costs, inadequate systems, and poor governance. Macroeconomic imbalances in many countries lead to high inflation and interest rates, restrictions on interest rates and lending, and limitations on private and foreign entry into banking. In many countries micro-finance institutions are not well accommodated or supervised. Systemic risks associated with seasonality and natural disasters are high. Information is often inadequate to allow for sufficient management of risk, and many clients lack collateral and financial track records. Transactions costs are high due to dispersed population, poor transportation and communications, and low investment in financial technologies.

A number of measures can be taken to bring the commercial system closer to rural clients, and to make clients more attractive to the institutions. For example, leading rural and micro-finance institutions can be licensed to mobilize savings. Small local micro-finance institutions can be linked to commercial financial institutions. Small entrepreneurs can be trained in financial skills and business management. Social capital can be built through community associations and the formation of groups. Rural clients can use trade credits and suppliers' credit to access financial services. The informal financial sector offers services.

Staff and management of rural and micro-finance institutions can be trained better to serve clients and contribute to the sustainability of their institutions. Good Management Information Systems (MIS) systems within the institutions, coupled with innovative development of products and good governance can make the institutions relevant to rural clients. Institutions can be strengthened by linking them through associations and networks of like institution over broad geographic areas, especially to monitor industry performance and standards, to develop training programs, and to share risks.

Rural and micro-finance institutions should be permitted to charge interest rates needed to cover costs and grow. A flexible approach should be adopted that facilitates a range of rural and micro-finance institutions. Supervisory capacity should be strengthened for licensed rural and micro-finance institutions. Mechanisms to improve enforcement of contracts at low-cost for small transactions should be sought.

Rural Infrastructure

Rural infrastructure consists of water, sanitation, transport, energy, telecommunications and information. Our goal to increase access to sustainable services, which includes recognition of nontraditional interventions: for example, supporting footpaths for villagers to reach roads, promoting traditional energy sources (90 percent of rural energy is not networked-based). The trend is to decentralize and move service delivery to serve individual consumers, communities or groups of communities. In terms of finance and management, energy and telecom follow a purely commercial model, in which investment costs are reflected in tariffs and operations are carried out for a profit.

Rural water is often managed by users group at the community level, comes with a cost and requires a high degree of community mobilization and training, with private sector support. Rural transport infrastructure is usually considered as a public good, receiving high levels of subsidy. The level of rehabilitation and maintenance should be related to obtaining minimum service levels to as many rural residents as possible.

Most rural infrastructure projects/interventions should include a mix of policy reform and improved methods and investment instruments to promote demand-driven service provision. Local governments should carry a major responsibility for delivery of services, and should improve capacity to respond to demand of rural communities. Roles of local governments and sector agencies need to be clear and mutually supportive.

Service-level delivery options should vary with the scale and nature of the service provided. Individuals, communities and investors should be allowed to access a range of technical options and decision-making frameworks to enable them to make informed choices, based on management, cost and service level options, in a transparent environment. The decision-making framework varies with the nature and scale of rural infrastructure service, with communities playing a key role in rural water. Activities in transport must consider its networked nature and bring in local and other government, while energy and telecom seek greater roles for private sector, including financing.

Demand-driven services should be implemented where communities and consumers choose and commit themselves to preferred levels of service based on their willingness to pay. Each sector has different practices for cost recovery. At a minimum, user payment should be through initial contributions to investment costs and payment of tariff/user fees to cover at least O&M. Subsidies should be well-defined, targeted and structured to balance the desire to deliver efficient rural infrastructure services through the market, with the goal of ensuring access in needy areas, but always under criteria assuring cost-recovery and sustainability.

Because of the importance of involving communities in decisions about infrastructure (that they will have to maintain) CDD operations are good vehicles for local investments, coupled with sector wide programs or other interventions that support construction of infrastructure of national scope.

Human Development

Given the nature of the human development challenge in Africa, strategies should address several key priorities. Assistance to governments and community groups in combating the HIV/AIDS epidemic is paramount. Striving to achieve the international development goals in basic education (with gender equity), child health, nutrition, maternal health, and reproductive health is equally important. Because of the high and rising mortality, social safety nets for needy orphans are imperative. And the healthy need job creation and income security. Innovative ways to mobilize and empower people in the villages and communities should be explored, as should ways to assist communities through targeted interventions and the effective transfer of resources (for example, collaboration with NGOs, community organizations and local governments).

The World Bank does not support user fees for primary education. Not only is education a major route out of poverty, but primary education benefits society at large by creating a numerate and literate population. When, for fiscal reasons, governments levy these fees, the Bank works with governments to reduce the burden on poor people, by recommending (and providing financing for) targeted subsidies. While governments should not charge user fees, local communities do levy charges (often paid in-kind through labor services) which, by building community support for the local school, can improve service delivery. Recognizing the important contribution that such charges can play in sustaining education services, the Bank's position is that they must be carefully designed to ensure that they do not lead poor parents to keep their children out of school.

The Bank supports the provision of basic health services to poor people for free or where specific community conditions warrant, at the lowest possible cost. In the case of immunization, maternal and child care, and certain interventions for TB, HIV/AIDS, sexually-transmitted infections, and malaria that have large benefits for the community and vulnerable groups, the Bank discourages user fees and helps countries find better ways to finance these activities. In many low-income countries where taxation capacity and therefore public resources for health sector are very limited, many households contribute premiums towards risk-sharing arrangements such as community financing and other insurance schemes that can protect them from the impoverishing effects of infrequent, but relatively high cost illnesses. The Bank works actively with countries to find ways to subsidize the premiums of poor populations so that financial protection under such insurance arrangements will expand over time to larger segments of the populations. In the absence of such insurance arrangements, in very low-income contexts where the governments' resource mobilization capacity is extremely limited, it has been shown that well designed and well implemented user fees or co-payments can mobilize additional resources from better-off groups that can then be used to improve services for poorer groups. Such cost-sharing schemes can play a critical role in helping ensure essential services are available. Where countries are pursuing such arrangements, the Bank works closely with policy makers to ensure that poor people face minimal or zero costs. The Bank also works with countries to better understand and reduce other barriers to access to basic services–such as unofficial fees, language difficulties, distance, and the like.

Appendix 2 Share of Agriculture and Agricultural Growth Rates

Country	*Agriculture share of GDP in 1999*	*Annual average percentage growth, 1980-89 (constant 1995 US$)*	*Annual average percentage growth, 1990-99 (constant 1995 US$)*
Guinea-Bissau	63.6	3.2%	3.5%
Central African Republic	55.1	1.5%	3.3%
Burundi	52.2	3.1%	-1.6%
Ethiopia	48.9	-0.4%	2.4%
Tanzania	47.6	n/a	3.2%
Mali	46.5	2.2%	2.4%
Rwanda	45.7	0.8%	-4.0%
Sierra Leone	44.4	3.5%	0.3%
Uganda	44.2	1.5%	3.6%
Cameroon	43.5	2.7%	4.5%
Togo	43.0	5.5%	4.1%
Nigeria	41.2	2.2%	2.9%
Niger	40.4	1.7%	3.2%
Comoros	38.7	5.2%	-0.3%
Benin	38.2	4.5%	5.0%
Chad	37.9	2.7%	4.5%
Malawi	37.6	-3.3%	6.4%
Ghana	35.8	0.6%	3.0%
Gambia, The	33.2	0.8%	1.5%
Burkina Faso	32.1	3.5%	3.2%
Mozambique	31.6	7.0%	4.4%
Madagascar	30.0	2.1%	1.5%

Source: World Bank World Development Indicators Database

Country	*Agriculture share of GDP in 1999*	*Annual average percentage growth, 1980-89 (constant 1995 US$)*	*Annual average percentage growth, 1990-99 (constant 1995 US$)*
Kenya	27.0	3.2%	1.2%
Mauritania	25.2	1.2%	4.4%
Cote d'Ivoire	23.8	0.0%	3.0%
Guinea	23.1	3.1%	4.3%
Sao Tome and Principe	20.7	3.4%	3.8%
Senegal	17.9	1.8%	1.5%
Zambia	17.3	3.6%	7.6%
Eritrea	16.0	n/a	n/a
Equatorial Guinea	16.0	0.1%	6.0%
Swaziland	15.8	2.1%	-0.6%
Namibia	12.8	1.3%	4.1%
Cape Verde	12.0	5.3%	3.7%
Congo, Rep.	10.1	3.5%	1.3%
Mauritius	8.0	1.9%	-0.2%
Angola	6.7	0.5%	-4.4%
Seychelles	4.1	-2.5%	-1.5%
South Africa	3.8	2.6%	0.2%
Botswana	3.6	1.2%	0.4%
Congo, Dem. Rep.	..	2.5%	2.8%
Gabon	..	1.5%	-1.8%
Lesotho	..	-0.5%	1.4%
Zimbabwe	..	2.8%	4.2%

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