New Directions in Development Thinking

The principal goal of development policy is to create sustainable improvements in the quality of life for all people. While raising per capita incomes and consumption is part of that goal, other objectives—reducing poverty, expanding access to health services, and increasing educational levels—are also important. Meeting these goals requires a comprehensive approach to development.

The last half-century has been marked by a mix of pessimism and optimism about prospects for development. The Green Revolution held out the prospect of overcoming the Malthusian threat, and countries like India succeeded in achieving food security. But the world's burgeoning population, combined with relatively slow growth in the productivity of food grains in the 1990s, is once again raising fears of food shortages. Some development approaches, such as Brazil's import-substitution policies, appeared to work for a while but then failed. The more recent downturn in the most remarkable economic success story of all—East Asia—has raised new questions about development policies, as has the slow response to market reforms shown by the economies in transition. Yet a consensus is emerging on the elements of future development policy.

- *Sustainable development has many objectives.* Insofar as raising per capita income improves people's living standards, it is one among many development objectives. The overarching aim of lifting living standards encompasses a number of more specific goals: bettering people's health and educational opportunities, giving everyone the chance to participate in public life, helping to ensure a clean environment, promoting intergenerational equity, and much more.
- *Development policies are interdependent.* When a policy does not work well, what is involved may be more than just the individual strategy. Policies require complementary measures in order to work best, and a policy failure can occur because these complements are not in place.
- *Governments play a vital role in development, but there is no simple set of rules that tells them what to do.* There is consensus that governments should adhere to the policy fundamentals, but beyond that, the part the govern-

ment plays depends on its capacity to make effective decisions, its administrative capabilities, the country's level of development, external conditions, and a host of other factors.

- *Processes are just as important as policies.* Sustained development requires institutions of good governance that embody transparent and participatory processes and that encompass partnerships and other arrangements among the government, the private sector, nongovernmental organizations (NGOs), and other elements of civil society.

The idea that development has multiple goals and that the policies and processes for meeting them are complex and intertwined has provoked an intense debate on the wisdom of traditional development thinking. This introduction draws on the threads of that debate to review perspectives and lessons from past development experiences. It emphasizes the need to reach beyond economics to address societal issues in a holistic fashion. The chapter then turns to the role of institutions in development and points to the institutional changes that will be necessary to ensure sustainable development in the 21st century. While development still faces many challenges, the opportunities waiting to be grasped in the new century hold out just as many exciting prospects.

Building on past development experiences

The evidence of recent decades demonstrates that while development is possible, it is neither inevitable nor easy. The successes have been frequent enough to justify a sense of confidence in the future. But while these successes may be replicable in other countries, the failure of many development efforts suggests that the task will be a daunting one.

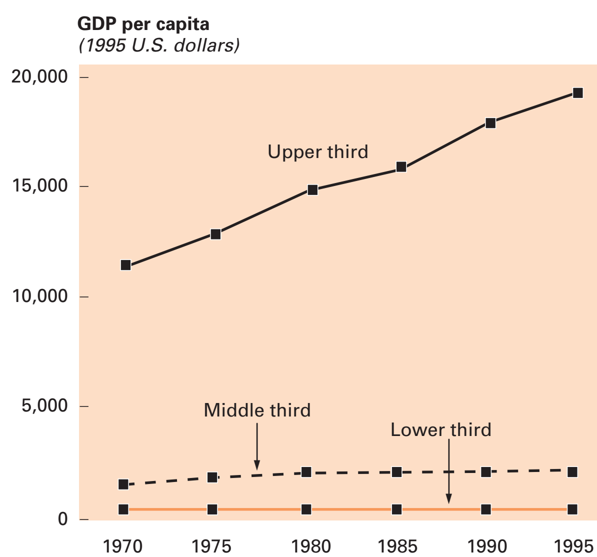
One measure of development is per capita GDP, which is often correlated with other indicators of well-being and so serves as a convenient starting point. The average level of per capita GDP in developing countries for which data are available rose at a rate of 2.1 percent per year from 1960 to 1997—a growth rate that, if it kept rising, would double average per capita GDP every 35 years or so.

But such aggregate data invariably mask an array of variations across times and places. For example, the growth rate of per capita income in developing countries rose relatively quickly in the 1960s and 1970s and leveled out in the 1980s. An optimist might see signs of a return to rapid growth in the first half of the 1990s, but such signs have been less apparent in the aftermath of the East Asian financial crisis that began in 1997. In addition, East Asia is the only region of the world where incomes in low- and middle-income countries are converging toward incomes in richer countries.

Compared to this regional success, the broad picture of development outcomes is worrisome. The average per capita income of the poorest and middle thirds of all countries has lost ground steadily over the last several decades compared with the average income of the richest third (figure 8). Average per capita GDP of the middle third has dropped from 12.5 to 11.4 percent of the richest third and that of the poorest third from 3.1 to 1.9 percent. In fact, rich countries have been growing faster than poor countries since the Industrial Revolution in the mid-19th century. A recent estimate suggests that the ratio of per capita income between the richest and the poorest countries increased sixfold between 1870 and 1985.[1] Such findings are of great concern because they show how difficult it is for poor countries to close the gap with their wealthier counterparts.

Standard economic theories predict that, other things being equal, poor countries should grow faster than rich ones. For instance, developing countries arguably have an easier task in copying the new technology and production processes that are central to economic development than industrial countries have in generating them. Capital, expertise, and knowledge should flow from

Figure 8
The incomes of rich and poor countries continue to diverge



Source: World Bank, *World Development Indicators,* 1999.

wealthier countries that have these resources in abundance to those developing economies in which they are scarce—and where they should be even more productive.

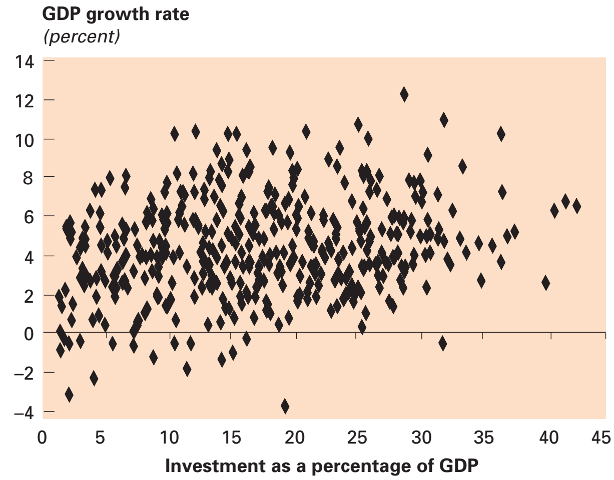
Both past and present development thinking has devoted much effort to uncovering explanations for why low-income countries have difficulties in following this pattern.[2] A number of studies show that low-income countries can grow faster than high-income countries (by about 2 percent per year), thus catching up gradually over time, if they implement an appropriate mix of growth-enhancing policies.[3] And increasing experience with development outcomes is providing insight into the complexity of the process and the multifaceted approach needed to achieve this growth.[4]

The complexity of the development process has long been recognized. Arthur Lewis's classic 1955 study *The Theory of Economic Growth* includes chapters on profit incentives, trade and specialization, economic freedom, institutional change, the growth of knowledge, the application of new ideas, savings, investment, population and output, the public sector and power, and politics.[5] But over the years, various development processes have been singled out as "first among equals" in terms of their impact. The conceptual frameworks for development of the last 50 years, especially in their popularized versions, tended to focus too heavily on the search for a single key to development. When a particular key failed to open the door to development in all times and places, it was set aside in the search for a new one.

Development models popular in the 1950s and 1960s drew attention to the constraints imposed by limited capital accumulation and the inefficiency of resource allocation.[6] This attention made increasing investment (through either transfers from abroad or savings at home) a major objective. But the experience of recent decades suggests that a focus on investment misses other important aspects of the development process. Investment rates and growth rates for individual countries between 1950 and 1990 varied considerably (figure 9). Some low-investment countries grew rapidly, while a number of high-investment countries had low growth rates.[7] Although investment is probably the factor that is most closely correlated with economic growth rates in these four decades, it does not fully explain them.[8]

Early theories of development, especially those associated with Simon Kuznets, also argued that inequality generally increases during the early stages of development. Evidence from recent decades has not validated these theories, and it now appears likely that growth,

Figure 9
Investment alone cannot account for variation in growth



Note: Figure shows decade-average investment rates against decade-average GDP growth rates from 1950 to 1990 for a 160-country sample.
Source: Kenny and Williams 1999.

equality, and reductions in poverty can proceed together, as they have in much of East Asia. Many policies promote growth and equality simultaneously. For example, improving access to education builds human capital and helps the poor, and providing land to poor farmers increases not only equality but also productivity. The East Asian countries also showed that countries can have high savings rates without high levels of inequality.

Development theorists of the 1950s and 1960s also offered a wide variety of rationales explaining why open economies and limited intervention would not suffice to spur growth. Many development economists focused on planning as at least a partial solution to the prevailing problems of low investment and slow industrialization, especially as memories of the Great Depression made many policymakers skeptical about the virtues of unconstrained market forces. Two other factors seemed to argue for an aggressive government role in development: the U.S. government's close management of production during World War II, and the investment and GDP levels of the Soviet Union, which was then surging forward under communism despite enormous human costs.

Over time, however, it became clear that while governments do have a vital role in the development process, only a few governments have run state enterprises efficiently. Returns to investment in the Soviet Union fell almost to zero. Governments padded public sector payrolls and the overstaffing, combined with inefficiency, produced large deficits that imposed a fiscal burden and diverted needed revenues. Concerns were also mounting that governments of developing countries were making poor decisions in the macroeconomic sphere, leading to problems such as inflation and the debt crises in Latin America.[9]

In the late 1960s the attention of policymakers began to shift toward an emphasis on human capital, which is often measured in terms of school enrollment (as a proxy for education) and life expectancy (as a proxy for health status). In the last two decades investment in human capital has shown impressive results. Rates of return on primary education in low-income countries have been as high as 23 percent per year.[10] But like investment in physical capital, investment in health and education alone does not guarantee development. In Sub-Saharan Africa, for example, life expectancy and school enrollment rates have increased dramatically in recent decades, but as a group the economies in the region have had slow and even negative growth since the early 1970s.

By the 1980s the intellectual climate had shifted again. Confidence in government planning as a solution had diminished dramatically. The primary concerns of the day were, in fact, government-induced price distortions (such as those associated with tariffs) and inefficiencies arising from government production.

Still, governments continued to be recognized as central to the development process. As the 1991 *World Development Report* noted: "[M]arkets cannot operate in a vacuum—they require a legal and regulatory framework that only governments can provide. And markets sometimes prove inadequate or fail altogether in other regimes as well. The question is not whether the state or market should dominate: each has a unique role to play."[11] At the same time, research was showing that the market imperfections central to the discussion in the 1950s and 1960s were (at least theoretically) more widespread than had been previously believed. However, as a response to public sector inefficiency, policy discussion nonetheless focused on market-conforming solutions: eliminating government-imposed distortions associated with protectionism, subsidies, and public ownership. A solution to the problem of excessive debt accumulation was also put forward that involved adjusting the fiscal, monetary, and external imbalances adversely affecting price stability and growth. Like government intervention and investment in education and health in previous decades, reduced distortions and greater austerity had become the central elements of the development agenda.

The evidence of the last two decades continues to support the need for macro stability and sector reform. Once again, however, an exclusive focus on these issues proved insufficient. Some countries followed policies of liberalization, stabilization, and privatization but failed to grow as expected. Several African countries implemented sound macroeconomic policies but still reached an average growth rate of only 0.5 percent per year.[12] Low-inflation countries with small budget deficits face many alternate sources of economic instability, including weak and inadequately regulated financial institutions, as East Asia discovered.

The lessons of small versus big government performance were also less clear than expected. In the Russian Federation the move from inefficient central planning and state ownership to decentralized market mechanisms, private ownership, and a profit orientation should have increased output, perhaps in tandem with a slight increase in inequality. Instead, Russia's economy has shrunk by up to one-third, according to some estimates, and income inequality has increased dramatically. Living standards have deteriorated along with GDP, and health indicators have worsened.[13]

Other countries intervened to a relatively large extent in markets and enjoyed rapid growth. The governments of East Asian countries failed to follow many of the tenets of liberalization in the early stages of development, yet their societies have been transformed in the last several decades.[14] Even with a few years of zero or negative growth in the late 1990s, their per capita GDP at the turn of the century is many times what it was a half-century ago and far higher than those of countries that pursued alternative development strategies. The East Asian governments often pursued industrial policies that promoted particular sectors. They intervened in trade (although more to promote exports than to inhibit imports). They regulated financial markets, limiting the investment options available to individuals, encouraging savings, lowering interest rates, and increasing the profitability of banks and firms.[15] Their policies placed heavy emphasis on education and technology in order to close the knowledge gap with more advanced countries. More recently, China has forged its own version of an East Asian–style development path. Its transition strategy for replacing the centrally planned economy with a market-oriented regime has resulted in extraordinary gains for hundreds of millions of the poorest people in the world.

The twists and turns of development policy and the nature of the successes and failures around the world illustrate the difficulty of interpreting the development drama. The situations in which success and failure occur differ so much that it is sometimes not apparent which lessons should be extracted or whether they can be applied in other countries. For example, the role the government plays depends on a range of factors, including administrative capacity, the country's stage of development, and the external conditions it faces.

Despite the difficulty of drawing clearly applicable lessons from development history, current development thinking has been able to draw on country experiences to suggest a range of complementary policies. These policies, if implemented together and in a way that takes into account the situations of individual countries, are likely to encourage development. Several factors that played a part in the most impressive development success story of the last 50 years—East Asia—undoubtedly contribute to growth and development in general: high savings, strong returns to investment, education, trade, and sound macroeconomic policy. At the same time, development failures point to the importance of institutional structures, competition, and control of corruption (box 1).

Studies of World Bank projects illustrate the many elements necessary for successful development.[16] These studies show that projects in countries that adhere to the macroeconomic fundamentals of low inflation, limited budget deficits, and openness to trade and financial flows are more successful than projects in closed countries with macroeconomic imbalances. But the projects need more than a stable macroeconomy in order to succeed. For example, social projects are more likely to succeed if they emphasize beneficiary participation and are responsive to gender concerns. Studies

Box 1
Lessons from East Asia and Eastern Europe

The success of East Asia provides some notable lessons on successful development strategies.

- *Savings.* All the East Asian countries had much higher savings rates than other developing countries. From 1990 to 1997, for example, gross domestic savings in the countries of East Asia and Pacific were 36 percent of GDP, compared with 20 percent in Latin America and the Caribbean and 17 percent in Sub-Saharan Africa.
- *Investment.* The East Asian countries managed to invest these savings productively, so that the return on capital investment remained higher than in most other developing countries (at least until the mid-1990s).
- *Education.* These economies invested heavily in education—including female education. The investments paid off in contributions to growth.
- *Knowledge.* The East Asian countries managed to narrow the knowledge gap with high-income countries by investing heavily in science and engineering education and by encouraging foreign direct investment.
- *Global integration.* The experience of East Asia's economies shows that developing countries have a greater ability to enter global markets for manufactured goods than many believed possible several decades ago.
- *Macroeconomic policy.* The East Asian countries implemented sound macroeconomic policies that helped contain inflation and avoid recessions. Indonesia and Thailand had positive real GDP growth from 1970 until 1996. Over that same time period Malaysia and the Republic of Korea each had only one year of negative real GDP growth.

Each of these points opens up a number of new issues. For instance, the high savings rate might have been generated by personal preferences, government policies, or a combination of the two. And while these countries invested their savings well, many others do not. Nonetheless these elements of overtly successful policies point the way toward a partial development agenda.

Failures as well as successes can provide positive lessons for development. Among the most recent (and sometimes spectacular) examples of such failures are Russia, some of the economies in transition in Central and Eastern Europe, and several East Asian countries affected by the economic and financial crisis of the mid-1990s. Their experiences point to other factors that can influence economic growth, including corporate and public governance and competition.

- *Legal frameworks.* A sound legal framework helps ensure that managers and majority shareholders in the corporate realm focus on building firms rather than on looting them.
- *Corruption.* Reducing corruption in the public sphere makes a country more attractive to investors. Many privatization efforts have been racked by corruption, undermining confidence in both the government and the market economy. The loans-for-shares scheme in Russia was so widely perceived as raising corruption to new heights that much of the resulting wealth is considered illegitimate.
- *Competition.* Competition is essential. It encourages efficiency and provides incentives for innovation, but monopolies may try to suppress it unless the government steps in.

also find that government "ownership" of projects is essential and that measures of government credibility are closely correlated with returns on the projects. In low-income countries stronger institutions are associated with a 20 percent increase in the likelihood that a project will receive a "satisfactory" rating.[17] The role of social capital in project success has also been highlighted—indeed, it is hard to overemphasize the importance of networks of trust and association for sustainable development (box 2). Finally, the studies emphasize the importance of coordinated development efforts among governments and donors.[18]

Overall, the impact of World Bank projects depends on a host of factors extraneous to the projects themselves. A recent review of World Bank energy projects in Sub-Saharan Africa offers some vivid examples of these factors, including governance, human capital, and a good policy framework (box 3). What is true of energy projects in Sub-Saharan Africa is equally true of privatization programs. The outcome of privatization projects is heavily dependent on governance structures, macroeconomic and structural factors, the competitiveness of the market, social sustainability, regulatory regimes, corporate and commercial law, financial sector reforms, and the state of business accounting.[24] In turn, what is true of power and privatization projects is just as true of efforts to create social safety nets, build schools, or improve the environment.

The many goals of development

The World Bank's experience with large dam projects highlights the importance of taking a broad view of the outcomes of projects. In the 1950s and 1960s large dams were almost synonymous with development. But more recent evidence of their effects on the environment and on the welfare of groups displaced by construction suggests that these projects must be handled with great care if they are to have a positive impact on

Box 2
Social capital, development, and poverty

Social capital refers to the networks and relationships that both encourage trust and reciprocity and shape the quality and quantity of a society's social interactions.[19] The level of social capital has a significant impact on a range of development processes. For example:

- In education, teachers are more committed, students achieve higher test scores, and school facilities are better used in communities where parents and citizens take an active interest in children's educational well-being.[20]
- In health services, doctors and nurses are more likely to show up for work and to perform their duties attentively where their actions are supported and monitored by citizen groups.[21]
- In rural development, villages with higher social capital see greater use of credit and agrochemicals and more village-level cooperation in constructing roads.[22]

Social capital serves as an insurance mechanism for the poor who are unable to access market-based alternatives. It is therefore important to facilitate the formation of new networks in situations where old ones are disintegrating—as, for example, during urbanization.

Social capital can have an important downside, however. Communities, groups, or networks that are isolated, parochial, or counterproductive to society's collective interests (for example, drug cartels) can actually hinder economic and social development.[23] This has led some to make a distinction between vertical social capital (generally negative, as in gangs) and horizontal social capital (generally positive, as in community associations).

Box 3
Explaining power project outcomes in Sub-Saharan Africa

Until the mid-1990s the record of World Bank power projects in Sub-Saharan Africa was comparatively weak. Out of 44 such projects completed in the region between 1978 and 1996, 64 percent were rated satisfactory, compared with a worldwide average of 79 percent. A recent study analyzing the causes of this poor performance suggested that a wide range of factors influenced project outcomes and sector performance, including:

- *External factors,* such as rising fuel prices, international interest rates, and terms-of-trade shocks
- *Regulatory and legal structures,* including lack of transparency in regulatory processes
- *Low technical capacity*, especially a limited human resource base
- *Lack of private sector involvement*, through either ownership or service contracting
- *Limited government ownership* of reform processes
- *Weak coordination* among donor agencies and little overall government direction.

This list indicates just how complex and intertwined the development process can be in practice.

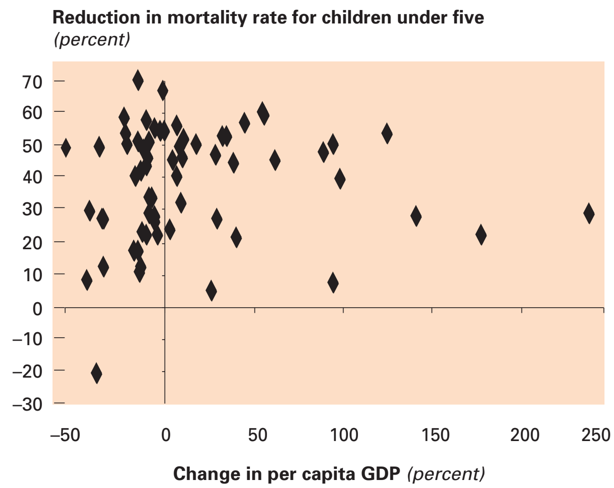
Source: Covarrubias 1999.

sustainable development. They require a participatory approach that allows all the potential costs to be aired openly and fully.[25] This approach is appropriate for other projects as well. In order to be effective, all projects must be implemented with an awareness of their social, civil, environmental, political, and international implications.

Similar lessons can be drawn from experience with development at the macroeconomic level. While increased income is clearly an important component of an improved standard of living, its relationship to other measures of well-being is complex. For example, those living on less than $1 per day are five times more likely to die before age five than those living on more than $1.[26] Nonetheless, recent studies suggest that rates of economic growth over the last 30 years reveal little about the rates of improvement in vital measures of development such as political stability, education, life expectancy, child mortality, and gender equality. Reductions in the mortality rate of children under the age of five, for example, appear to have little to do with the speed of economic growth (figure 10). While economic performance was poor in many developing countries in the 1980s and early 1990s, only one country in the sample used here (Zambia) saw an increase in infant and child mortality.

Figure 10

Infant mortality fell in most developing countries from 1980 to 1995, even where income did not increase



Note: Calculations for this figure are based on a developing country sample taken from the World Bank's *World Development Indicators,* 1998. *Per capita GDP* was adjusted for purchasing power parity.
Source: World Bank staff calculations.

One likely reason for this weak relationship is that countries and communities place different priorities on education and health. For example, public expenditures on health care are 63 percent of GDP in Latin American and Caribbean countries and 5 percent of GDP in South Asia, but they account for just 2.7 percent of GDP in Sub-Saharan Africa. Sri Lanka is often cited as an example of a poor country that has invested wisely in primary health care and has reaped the benefits. In 1997 life expectancy averaged 59 years in the world's low-income countries, and infant deaths averaged 82 per 1,000 live births. But despite its low level of GDP per capita, Sri Lanka's life expectancy was 73 years, and infant mortality was just 14 per 1,000 live births—not quite the levels of the high-income countries of the world, but not far short either.[27]

Further, like all development endeavors, achievements in health and education are interrelated, and they may also affect other government programs. Countries that pursue egalitarian growth strategies—for example, education or land reform—are more likely to perform well on indicators of human well-being. So, the most effective way to obtain improved health outcomes may be direct spending that improves nutrition and discourages smoking, drugs, and alcohol, rather than direct expenditures on health care. In some areas the most effective way to improve educational outcomes for children may not involve increased expenditure on books or teachers but instead may involve building a rural road or a bridge across a river to facilitate access to schools. Countries that pay attention to such linkages may discover unexpected improvements in their indicators of human well-being.

Improving health is itself one clear case where targeting broad goals is likely to have dramatic spillover effects. Studies suggest that as much as 30 percent of the estimated per capita growth rate in the United Kingdom between 1870 and 1979 might be associated with improvements in health and nutritional status. Microstudies support such findings—in Indonesia, for example, anemia reduced male productivity by 20 percent.[28]

Improvement in gender equality is another important example of a development goal that reinforces other elements of the development agenda. Low levels of education and training, poor health and nutritional status, and limited access to resources depress women's quality of life throughout the developing world. And gender-based discrimination can also be significantly deleterious to other elements of a sustainable development agenda. Women are a major part of the workforce in developing countries—they comprise about 60 percent of Africa's informal sector and 70 percent of the region's agricultural labor, for example. Discrimination reduces their productivity. Estimates from Kenya suggest that if women had the same access to factors and inputs as men, the value of their output would increase nearly 22 percent. Discrimination also has a negative effect on a range of other development indicators. One study has found that a 10 percent increase in female literacy rates reduces child mortality by 10 percent (increased male literacy had little effect).[29] Throughout the developing world, gains in the educational level of women in the 1960–90 period might account for as much as 38 percent of the decline in infant mortality over that time, and for 58 percent of the drop in total fertility rate.[30] Improving gender equality is likely to produce dramatic results, and it is a goal that can be targeted at any level of development.

While the level of income is not necessarily correlated with a higher standard of living, economic growth is linked with some negative outcomes—particularly carbon dioxide and sulfur dioxide output and the production of waste.[31] This suggests the importance of trade-offs in a comprehensive development strategy. Policymakers must sometimes make hard choices when a project or policy supports one development goal while damaging the prospects for another. Such trade-offs are not limited to those involving projects with high economic returns and adverse environmental impacts. In education, for instance, primary schooling may offer the most benefits in terms of increasing equity, but tertiary education may offer the most in terms of closing the knowledge gap with industrial countries.

Hence, development must pursue a range of outcomes, such as equality, education, health, the environment, culture, and social well-being, among others. Furthermore, the linkages between these outcomes—both positive and negative—need to be fully understood.[32] In cooperation with the World Bank and the United Nations, the Development Assistance Committee (DAC) of the OECD has produced indicators that set global targets for the wider goals of development to be reached by 2015 or earlier. These goals are to:

- Reduce extreme poverty by one-half
- Ensure universal primary education and eliminate gender disparity in education
- Reduce infant and child mortality by two-thirds and maternal mortality by three-quarters, while providing universal access to reproductive health services
- Implement worldwide national strategies for sustainable development and reverse trends in the loss of environmental resources.

These DAC development goals represent an important step toward recognition of the need for a holistic approach. More recently, the World Bank has begun piloting a strategy—the Comprehensive Development Framework—to help operationalize a multifaceted development agenda (box 4).

Economic history and lessons drawn from World Bank projects reinforce a number of conclusions. Sustainable development is a multifaceted process, involving multiple instruments and goals. In some cases the goals and instruments of successful development are one and the same—as in the case of gender, health, and education, for example. Strong interlinkages connect these goals, so that progress toward one is frequently dependent on progress toward others. The role of government and the participation of civil society are vital, as are the importance of sequencing and the complementarities among development projects. These lessons point to the importance of identifying bottlenecks—the economic or governmental weaknesses that stand in the way of a wide range of development objectives. Such lessons are humbling and have come at great cost over the last 50 years. They alter the framework in which the development enterprise should be approached, and they cannot be ignored.

Since 1990 a number of *World Development Reports* have examined many of the elements of a broad-based development strategy and have made recommendations for improving the provision of structural, physical, human, and sectoral services (box 5). While some details may have changed in light of recent experiences, the tried and effective mechanisms for removing development bottlenecks presented in these reports remain a useful starting point. All of the reports have discussed linkages among parts of the development process—poverty, education, health, gender issues, the environment, and service provision, for instance. This report and future reports (specifically the 2000/2001 report on poverty) will continue that tradition, providing

Box 4
The Comprehensive Development Framework

The World Bank has been evolving the Comprehensive Development Framework (CDF) in an attempt to operationalize a holistic approach to development. The framework is designed to serve as both a planning and a management tool for coordinating the responses aimed at overcoming bottlenecks and meeting development goals. Implementing this strategy in any country would involve consulting with and winning the support of a range of actors in civil society, as well as NGOs, donor groups, and the private sector. Under the overall direction of the government, different agencies and organizations could coordinate their efforts to overcome constraints on development. The framework could enable the government to develop a matrix of responsibilities in each area showing what each group must do to fight poverty and encourage growth.[33]

The CDF is designed to be a means of achieving greater effectiveness in reducing poverty. It is based on the following principles:

- The country, not assistance agencies, should own its development strategy, determining the goals, timing, and sequencing of its development programs.
- Governments need to build partnerships with the private sector, NGOs, assistance agencies, and the organizations of civil society to define development needs and implement programs.
- A long-term, collective vision of needs and solutions should be articulated that will draw sustained national support.
- Structural and social concerns should be treated equally and contemporaneously with macroeconomic and financial concerns.

It is important to note that the CDF is meant to be a compass, not a blueprint. The way the principles are put into practice will vary from country to country, depending on economic and social needs and the priorities of the stakeholders involved. Further, the CDF is only at the pilot stage and is very much a work in progress. The mixed record of development programs in the past suggests the need for both caution in application and realism about expected results. Nonetheless, the CDF might allow participants in a country's development program to think more strategically about the sequencing of policies, programs, and projects. It could help to improve sectoral balance, encourage the efficient use of resources, and foster transparency when trade-offs need to be made and complementarities taken into account in the macroeconomic and social spheres.

The proposed new framework is based on four areas of development—structural, human, physical, and sectoral.

- *Structural* elements include honest, competent governments committed to the fight against corruption; strong property and personal rights laws supported by an efficient and honest legal and judicial system; a well-supervised financial system that promotes transparency; and a strong social safety net.
- *Human* development includes universal primary education and strong secondary and tertiary systems, and a health system that focuses on family planning and child care.
- *Physical* concerns center around the efficient provision of water and sewerage; expanded access to reliable electric power; access to road, rail, and air transportation and to telecommunications; preservation of the physical environment; and a commitment to preserving cultural and historical sites and artifacts that buttress indigenous cultures and values.
- *Sectoral* elements include an integrated rural development strategy, a strong urban management approach, and an enabling environment for the private sector.

The CDF does not seek to be exhaustive. A stable macroeconomy, shaped by prudent fiscal and monetary policies, is an essential backdrop to the development efforts the CDF proposes. This stable macroeconomic environment occupies the "other half of the balance sheet," complementing the CDF. And the pressing issues of poverty, gender inequality, knowledge and information gaps, and overpopulation are incorporated into virtually all of its components. Gender, for example, is central to all aspects of a comprehensive framework. Additionally, each country is likely to have its own unique priorities that would need to be included in a matrix that evolves over time. The priority each country gives to trade issues, the labor market, and employment concerns, for example, will depend on the conditions specific to the economy and the results of a national dialogue about development priorities and the programs needed to address them.

practical advice on implementing the many strands of broad-based development.

This report extends past analysis in a number of ways. It looks at governance reform in the context of urbanization and decentralization. It discusses regulatory reform and examines financial systems in a global context. Human elements permeate the discussion of the impact of trade and the need for sustainable urban development, and the section on urbanization emphasizes the importance of infrastructure provision. The report addresses environmental concerns at both the global and local levels. It also provides up-to-date lessons from experience and recommendations for successful development strategies.

The role of institutions in development

A strong network of effective organizations and enabling institutions is central to holistic development.

Box 5
A holistic approach to development in past *World Development Reports*

Macroeconomic policy and trade. *World Development Report 1991: The Challenge of Development* laid out the importance of a stable macroeconomic framework and an open trade regime for development, a message that has been repeated in reports since then. For example, *World Development Report 1997* noted the role of the WTO in fostering world trade (a topic this report will discuss at greater length).

Government, regulation, and corruption. *World Development Report 1996: From Plan to Market* pointed out the potential economic consequences of corruption and looked at policies that tend to increase or to mitigate its effects. Among other things, the report emphasized the need for a strong and independent judiciary and discussed methods for strengthening financial systems in transition economies through banking reform and the development of capital markets. It also examined mechanisms that increase the effectiveness of government, including expenditure control, budget management, and tax policy reform. *World Development Report 1997: The State in a Changing World* further explored issues of government reform and regulation, looking at the institutions that are needed in a capable public sector, discussing restraints on corruption, and outlining ways of bringing the state closer to the people.

Social safety nets. *World Development Report 1990: Poverty* discussed the need for transfers and safety nets to complement a market-oriented policy agenda that favors the poor. It emphasized the importance of efficient targeting, discussed methods of improving formal social security systems, and suggested complementary mechanisms for food-based interventions. *World Development Report 1995: Workers in an Integrating World* revisited these issues, addressing income security measures in the formal sector and methods of equipping workers for change and of facilitating labor mobility.

Health. *World Development Report 1993*: *Investing in Health* reviewed cost-effective mechanisms for providing government support for improved health care. The broad agenda covered female education and women's rights, increased and retargeted expenditures, improved management, and decentralized public-private partnerships. In all areas the mechanisms included delivering information, providing protection against infectious diseases, and ensuring universal access to essential clinical services.

Education. *World Development Report 1998/99*: *Knowledge for Development* suggested strategies for improving the quality of education from the primary to tertiary levels by decentralizing, improving information flows, and targeting support.

Infrastructure. *World Development Report 1994*: *Infrastructure for Development* focused on the urgent need to make the provision of infrastructure more efficient through commercial management (public-private partnerships or privatization), competition, and stakeholder involvement. The 1998/99 report studied the role of reform and government support in improving access to telecommunications.

Environment. *World Development Report 1992*: *Development and the Environment* analyzed the linkages among economic policy, poverty, and environmental outcomes and discussed methods of providing cost-effective interventions that ensure sustainable development. It examined self-enforcing policies and standards, the role of local participation, and improved know-how and technology. The 1998/99 report focused on the links between information and environmental degradation.

Rural strategy. In its study of poverty, the 1990 *World Development Report* presented an effective strategy for improving access to government services for the rural poor. In particular it focused on providing social services and access to infrastructure, credit, and technology.

Private sector strategy. The 1996 *World Development Report* presented a framework for creating institutions to support the private sector. It discussed the need for clearly defined property rights and laws governing corporations, contracts, competition, bankruptcy, and foreign investment and outlined methods of privatization. The 1997 *World Development Report* took another look at the roles of liberalization, regulation, and industrial policy in fostering markets.

Gender. *World Development Report 1990* noted the high rates of return to women's education and the role of community-based health care and family planning services in ensuring safe motherhood. These issues were explored in the 1993 report, which also discussed the broader agenda for equality. Last year's report emphasized the important role of microcredit schemes for women.

The term *institutions,* as it is used here, refers to sets of formal and informal rules governing the actions of individuals and organizations and the interactions of participants in the development process (box 6). The institutional infrastructure of an economy embraces two primary areas. The first includes social capital and norms—the unwritten rules of behavior that allow cooperation and dispute resolution, with low transaction costs. The second includes formal legal rules, which ensure that contracts are enforced, property rights honored, bankruptcies settled, and competition maintained.

The efficacy of markets, which are themselves institutions, depends on the strength of supporting institutions that help align the expectations of agents regarding the procedures that govern their transactions. Institutions affect the modes of participation and negotiation among groups and, through their incentive effects, shape the nature of agents' reactions and responses.

Box 6
Institutions, organizations, and incentives

This report follows the notion of institutions introduced in the new institutional economics, in which institutions are viewed as rules.[34] Rules can be formal, taking the shape of constitutions, laws, regulations, and contracts. Or they can be informal, like values and social norms. Institutions simultaneously enable and constrain the actions of individuals or organizations. Institutional reforms specify new rules or alter old ones with the intention of changing the behavior of individuals and organizations in desirable directions. For example, markets require social norms that offer at least a degree of respect for contract and property rights and a system of law that can quickly and inexpensively resolve disputes over such matters. Markets also require rules that eliminate unnecessary delays in processing cases and the biased decisions that make investors nervous about contributing to increased investment and growth. For this reason, judicial reform is a high priority for many countries.

Organizations themselves are characterized by internal rules that define for their members prerequisites for eligibility, responsibilities, sanctions, and rewards. How effectively and faithfully members pursue the organization's objectives depends on these rules. Large corporations are continuously adapting their internal rules, centralizing some functions, decentralizing others, adding discretion where advantageous, and modifying the criteria for rewards when doing so is likely to improve performance. In many countries civil service reforms that put in place internal rules of monitoring and accountability are an important item on the policy agenda. Similar reforms of local institutions aim to improve the delivery of urban services and their regulation.

Much remains to be learned about the determinants of institutional change. Institutions change slowly but constantly, either in response to shifts in outside circumstances or as a result of group conflict and bargaining.[35] Even so, it is possible to posit institutions that can help stabilize the global economy and improve the prospects for development—and to suggest mechanisms that facilitate their implementation by aligning incentives with desirable outcomes. In this report institutional reform typically implies changing and specifying formal rules that determine the objectives and incentives for the behavior of individuals and organizations.

A vital role for effective institutions of governance and regulation arises across the range of activities encompassed by a broad-based approach to development—including the structural, human, physical, and sectoral elements included in the CDF.[36]

Institutions at the structural level

A well-run civil service and an efficient judiciary are prerequisites for efficient government action. When a government provides goods directly, it is often a monopoly supplier. As such, it must not take advantage of its monopoly position to provide a suboptimal level of service to the public. Rather, it must structure itself in a way that provides incentives for efficient production and for ongoing gains in productivity. *World Development Report 1997: The State in a Changing World* outlined methods of improving the operations of policymaking and executive agencies that reduce opportunities for politicians and civil servants to exploit public ownership and control over supplies. The report found that countries with stable governments, predictable methods of changing laws, secure property rights, and a strong judiciary saw higher investment and growth than countries lacking these institutions.

A strong regulatory policy is of central importance across a range of sectors. This year's report discusses its role in the provision of essential urban public services at the local level, in resolving global environmental problems, and in imparting stability to the financial sector. For example, without appropriate accounting and regulatory standards, neither bank depositors nor outside investors are well positioned to monitor the degree of risk that banks take when making loans. Last year's *World Development Report* noted that similar problems plague the relationship between investors and companies in stock markets more generally, and regulations addressing these information issues offer substantial benefits.

Institutions and the provision of human development services

Governance institutions are also of primary importance in determining how society addresses human development. In the area of education, for example, the forces of consumer choice that provide such strong incentives for providers in other markets are limited in various ways. Students and even parents are rarely in a position to assess the quality and relevance of education, and it is costly for students to change schools. Institutional reforms center around empowering teachers and schools and improving access to information for both parents and students. In Minas Gerais, Brazil, the reforms implemented since 1991 have increased school autonomy and parental participation and improved student evaluation. These reforms, coupled with efforts to build capacity and professional development in school staff, have increased student test scores.[37]

Providing a social safety net that effectively targets the poor requires efficiently designed programs that benefit those most in need. *World Development Report 1998/99* noted a study carried out in Jamaica which found that food stamps distributed through health clinics reach 94 percent of malnourished children. Over 30 percent of the total benefits of targeted food stamps go to the poorest 20 percent of Jamaican society, while universal food subsidies provide greater benefits to the rich than the poor.

Institutions and the provision of physical services

A central feature of utilities and infrastructure is network externality—that is, the average costs of providing services tend to decrease and the usefulness of the service tends to increase as the system grows. For example, a telephone network with only two connections is costly to set up on a per-person basis and is of little use even to the two parties, since they can call only each other. But a network with many connections costs less and provides greater benefits per user. Network externalities create situations that tend toward monopoly ownership; in the absence of competition, however, firms often overcharge users and operate inefficiently. The telecommunications sector needs regulation to enforce competition, including rules requiring operators to connect each other's customers at an efficient price. A well-run regulatory regime has had a dramatic effect on line rollout in Chile, for example, where a decade of regulated competition has seen a tripling of the number of telephone lines per capita.[38]

The physical dimension of development concerns also includes the environment. Without some form of regulation, companies would not pay for the health and environmental damage manufacturing processes inflict. Individuals and organizations will often pollute indiscriminately if they are allowed to, leaving others to pay the costs. In some cases institutions can have a sizable impact on pollution simply by collecting information about what is happening and making that information widely available. One model is the Indonesian Clean Rivers program, which used to good advantage firms' concern for their public image in inducing them to limit the release of pollutants. By publicizing information on plant emissions, the program lowered the total discharges of 100 participating plants by one-third between 1989 and 1994.

Institutions and sectoral issues

Rural areas often suffer because traditional formal markets fail to provide them with adequate services such as banking. But innovative institutional structures can overcome this problem, as was discussed in *World Development Report 1998/99.* In Bangladesh the Grameen Bank's group lending program has given rural women access to credit. The bank grants loans to members of a group, who are held collectively responsible, creating incentives for members to monitor each other.

Cities present a wide range of positive and negative externalities. They require efficient institutions if they are to benefit from the positive externalities associated with agglomeration economies and mitigate the negative externalities of congestion and environmental damage that concentrated populations generate. *World Development Report 1997: The State in a Changing World* touched on the subject of efficient city government, and this report examines the topic in greater detail.

Sustainable development is a complex task in which appropriate institutions will play a central role. But such institutions will not necessarily emerge spontaneously. Institutions grow and change over time, but the process of evolution does not necessarily produce socially optimal institutions. Institutional change is more often the result of conflicts over the allocation of societal resources than of planning designed to maximize social welfare. Thus, while institutions are central to implementing broad-based development, understanding which institutional changes will ensure sustainable development in the new century is equally important. It requires having a clear conception not only of the progress that has already been made but also of the challenges the new century will present. The next two sections look at these issues.

The record and outlook for comprehensive development

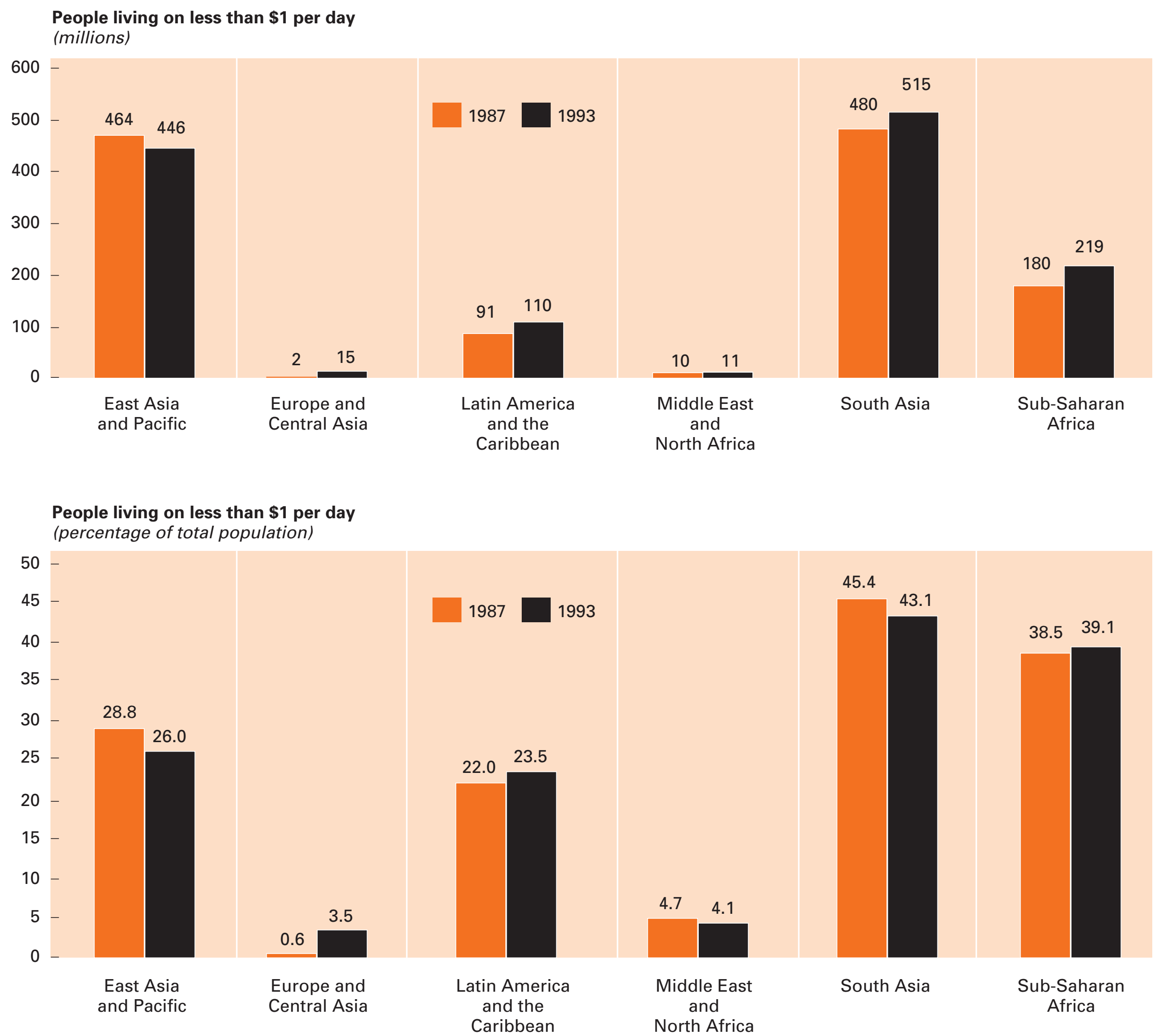
What has been the record to date of development? And what does the future hold? Answering these questions involves looking at a range of indicators of economic, human, and environmental welfare. The evidence suggests that while remarkable progress has been made in some areas, in others development has fallen behind. Current trends suggest that even the gains achieved could prove short-lived in the absence of new policies and institutions.

Some parts of the developing world have enjoyed levels of growth high enough to reduce poverty in recent decades. Even in parts of the world where poverty rates remain high, the percentage of the poorest—those living on less than $1 per day (a frequently used poverty line)—has declined. In South Asia, for example, the proportion of the population below the poverty line declined from 45.4 percent in 1987 to 43.1 percent in 1993. But the proportion is rising in some regions. In Latin America it rose from 22.0 percent of the population in 1987 to 23.5 percent in 1993, and in Sub-Saharan Africa it increased from 38.5 percent to 39.1 percent (figure 11).

The ongoing increase in population levels means that the absolute number of those living on $1 per day or less continues to increase. The worldwide total rose from 1.2 billion in 1987 to 1.5 billion today and, if recent trends persist, will reach 1.9 billion by 2015.

With the recent East Asian crisis, poverty rates have risen again, even in this successful developing region. If the poverty level is set at $2 per day, Thailand is projected to see poverty increase by 19.7 percent between 1997 and 2000.[39] Inequality typically does not reverse itself quickly, so that if average levels of income change,

Figure 11
The number of poor people has risen worldwide, and in some regions the proportion of poor has also increased



Source: World Bank, *World Development Indicators*, 1998.

the number of individuals at the bottom—those in poverty—will not move in tandem. An informal rule of thumb is that a per capita growth rate of 3 percent or more is considered the minimum for reducing poverty rapidly.[40] But the average long-term growth rate of developing countries is below that level. Between 1995 and 1997 only 21 developing countries (12 of them in Asia) met or exceeded this benchmark rate. Among the 48 least-developed countries, only 6 exceeded it.[41]

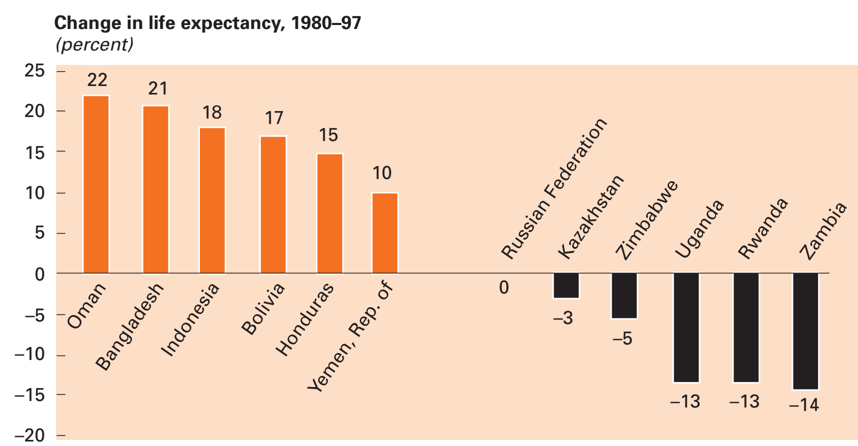
Measures of health and education offer another perspective on development and living standards. By and large, income increases over the last 50 years have been accompanied by improvements in a variety of indicators of human well-being—life span, infant mortality, and educational level. Even many low-income countries with very slow economic growth have been able to manage some significant improvements in the quality of life of their citizens. In the group of low-income countries as a whole, rates of infant mortality have fallen from 104 per 1,000 live births in 1970–75 to 59 in 1996, and life expectancy has risen by four months each year since 1970. Primary school enrollments have shown significant increases, and adult literacy has risen from 46 to 70 percent. Gender disparities have narrowed, with the average ratio of girls to boys in secondary school rising from 70:100 in 1980 to 80:100 in 1993. These trends testify to the enormous gains that have been made in the length and quality of life for billions of the poorest people around the world.[42]

However, some of these gains are proving fragile. A number of factors—notably prolonged economic crises and slumps—have begun to erode previous advances in life expectancy. In African countries burdened with slow economic growth and an increasing number of people with AIDS, life expectancy declined in 1997 to pre-1980 levels. Lower life expectancies are also apparent in countries of the former Soviet Union and in Eastern Europe (figure 12).

A number of other fundamental indicators, including adequate calorie intake, reasonable shelter, and access to basic services, remain deeply unsatisfactory. Of the 4.4 billion people in developing countries, nearly three-fifths lack basic sanitation; a third have no access to clean water; a quarter lack adequate housing; and a fifth have no access to modern health services. About 20 percent of children do not complete five years of school, and a similar percentage does not receive enough calories and protein from their diet.

Progress on countering infectious diseases over the last 40 years has been dramatic. While the worldwide eradication of smallpox is perhaps the best-known success, polio is also on the retreat. The last-known case of polio caused by wild poliovirus in the Western Hemisphere was on August 23, 1991, and that in the western Pacific was in March 1997. Sadly, the majority of African countries are still exposed to the poliovirus, as well as to malaria and tuberculosis. New diseases such as AIDS have also spread with alarming speed (box 7).[43] In 1995

Figure 12
Life expectancies have risen greatly in some countries, but others have suffered setbacks



Life expectancy at birth (years)

	1980	1997
Oman	60	73
Bangladesh	48	58
Indonesia	55	65
Bolivia	52	61
Honduras	60	69
Yemen, Rep. of	49	54
Russian Federation	67	67
Kazakhstan	67	65
Zimbabwe	55	52
Uganda	48	42
Rwanda	46	40
Zambia	50	43

Source: World Bank, *World Development Indicators*, 1999.

Box 7

Trends in disease and health care

Standards of health profoundly influence economic performance and quality of life. The past 50 years have witnessed enormous gains in medical science and health care in developing countries. However, on the threshold of a new century, the epidemiological statistics present a mixed picture. Many infectious diseases are on the retreat because of improved sanitation, nutrition, drugs, and vaccines and life expectancies are rising.[44] Urbanization could decrease the incidence of waterborne and parasitic diseases if it improves access to clean water and better sewerage. And the urban environment remains reliably inhospitable to certain insect vectors.[45] But the virulence of old infectious scourges such as tuberculosis (TB) and malaria has resisted modern science, and in recent years AIDS has emerged as a sizable cause of death and disability among adults in the 15–59 age group.[46] Moreover, in middle- and many low-income countries, the toll exacted by infectious diseases is increasingly overshadowed by that of noncommunicable diseases such as cancer, injuries, and neuro-psychiatric conditions. The future contribution of health to sustainable development will depend on successful action on these several fronts.[47]

Using the concept of disability adjusted life years (DALY)—which expresses years of life lost to premature death and years lived with a disability—injuries account for 16 percent of all DALYs, followed by psychiatric conditions (10 percent), noncommunicable diseases (10 percent), and HIV/AIDS, TB, and maternal conditions (7 percent). Major childhood conditions caused by diarrheal and respiratory infections and by malaria comprise another major component of DALYs.[48]

As countries urbanize and further embrace automobility, the risks from injury are likely to increase—road traffic accidents are already the ninth leading cause of DALYs worldwide, and the fifth highest in industrial countries.[49] With longer life expectancies and older populations, many middle-income and some low-income countries will see an increase in the incidence of chronic diseases and psychiatric disorders. This will lead to rising expenses on diagnoses and curative treatment. Furthermore, the concentration of populations in urban areas could exacerbate the spread of infectious diseases such as TB and HIV/AIDS, and possibly dengue fever, whose vector, the *aedes* mosquito, thrives in urban environments.[50]

In many developing countries, injuries, HIV/AIDS, and TB[51] could shave several points off the GDP growth rate by winnowing the number of prime age adults. Together with increased outlays on those suffering from chronic and psychiatric ailments, these diseases could also substantially raise expenditures on health care. Estimates of the effect of HIV/AIDS on the worst-hit African countries,[52] where the rate of infection continues to spiral upward, suggest that potential GDP could be reduced by 10–15 percent over the course of a decade by this one disease alone.[53]

Although research on vaccines that offer effective protection against HIV/AIDS[54] and malaria continues to move forward (with encouraging progress in the case of the latter),[55] in other areas ground is being lost because of the emergence of multi-drug resistant (MDR) strains of the tuberculin bacillus and of plague,[56] and strains of strep and staph bacteria that are beginning to defy even the most powerful antibiotics such as vancomycin.[57] In 1997, TB caused 2.9 million deaths.[58] Under conditions of poverty and crowding in urban areas, this toll could rise further, especially when health services are unable to cope. The problem is not likely to be limited to low-income countries because in an integrated world in which population mobility is high, new pathogenic strains diffuse rapidly, turning local outbreaks into global problems.[59] The speed with which new strains of influenza and cholera have spread throughout the world testifies to this aspect of globalization.

At the national level, low- and middle-income countries will need to pursue a multi-track strategy, with the priorities dictated by levels of income, financing, age profile, social circumstances, and organizational capacity. Preventive measures propagated by educational campaigns are likely to be the most cost effective against HIV/AIDS, smoking, maternal complications, and conditions affecting children. Simple but highly effective technologies such as vitamin A and zinc supplements[60] and insecticide-treated bednets,[61] propagated by well-designed campaigns, could be the most effective medium-term measures against malaria, whose diffusion to higher latitudes and altitudes could increase with climate change.[62]

Controlling infectious diseases such as TB will require a broader effort that embraces housing and the infrastructure of health services. In a decentralized milieu, this will require coordination between subnational entities, with some centralized oversight and funding. At the very least, a simpler, shorter duration regimen of drugs—as well as the organization to identify the infected, administer treatment over a period of weeks, and keep track of patients—will be necessary for significant gains.[63] In the process of treating diseases such as TB, medical personnel will have to husband the potency of available antibiotics through careful use, so as to contain the threat from resistant strains of bacteria.

Over the longer haul, the answer to many old and new diseases, including possibly heart disease, could lie in new DNA-based vaccines, better drugs that draw on advances in genetic engineering, and ingenious new ways of targeting and destroying pathogens inside the body.[64] But chronic conditions, injury, and poor mental health, which will be responsible for a growing share of the DALYs, will be best held in check by sustained educational efforts to influence living and eating habits and by controlling environmental hazards.

Greater effort at the national level must be strongly reinforced by well-orchestrated action at the international level, with a coordinated division of labor among international organizations and other bodies. This will ensure both the requisite provision of public goods and the management of health-related externalities, whose likelihood has been greatly magnified by globalization.[65]

alone more than 9 million children under the age of five in developing countries died from preventable causes.

Population growth is also connected with the success or failure of a sustainable development agenda. Long-term projections show that the world's population may level off around the middle of the 21st century. But before it does, the number of people could rise from the current level of 6 billion to more than 10 billion. This growth will pose difficult issues involving education, worker training, cultural stability, retirement programs, political majorities, and much more.

In parts of the world with fragile ecological systems that are already threatened by water stress and land degradation, increased population pressure could lead to environmental catastrophes. Global food supplies will need to double over the next 35 years because of population (and economic) growth. While food supplies have actually doubled in the last 25 years, agronomists warn that the next doubling will be far more difficult—especially if it is to be environmentally sustainable. In Nepal, for instance, where population growth is reducing average farm size, farmers have been pushed into clearing and cropping hillsides in an attempt to maintain their income, and erosion is becoming an increasingly serious problem.

The doubling of food production will have to occur at a time when 800 million people worldwide are already malnourished, 25 billion tons of topsoil are lost annually, and nearly three-quarters of the ocean's fish stocks are overexploited. The current costs of environmental damage, including such things as erosion and the health and other effects of pollution, have been estimated at 5 percent or more of GNP worldwide—a figure that will increase rapidly if the world does not move toward a sustainable development agenda (box 8).

Water scarcity also threatens the potential for continued improvements in the quality of life of the world's poorest people. Today, about one-third of the world is living under moderate or severe water stress, with at least 19 countries dependent on foreign sources for more than 50 percent of their surface water. By 2050 the proportion of people living at or above moderate water stress could double (box 9). The great majority will be in developing countries where technical, financial, and managerial limitations will complicate attempts to respond.[66] Under conditions of water scarcity, agricultural yields will fall as irrigation supplies dry up, and health will suffer as more people are reduced to using unsafe water sources for drinking and washing. The potential for conflict over riparian rights among states is also likely to increase.

Box 8
Sustainable development

Any sustainable development agenda must be concerned with intergenerational equity—that is, with ensuring that future generations have the same capability to develop as the present generation. A development path is sustainable only if it ensures that the stock of overall capital assets remains constant or increases over time. These assets include manufactured capital (such as machines and roads), human capital (knowledge and skills), social capital (relationships and institutions), and environmental capital (forests and coral reefs). The environment matters not just because of its effect on psychic and noneconomic welfare but also because of its impact on production over the long term.

Environmental sustainability is also closely connected with intragenerational equity. While the wealthy consume more resources overall, the poor tend to rely more heavily on the direct exploitation of natural resources than the rich. If they have no access to nonenvironmental resources—and so have limited capacity to adapt—they may have no choice but to engage in unsustainable uses of environmental resources.

Source: Pearce and Warford 1993; Watson and others 1998.

Economic stagnation or collapse, new health crises, continued population growth, and a range of environmental issues all threaten the gains that have been made in the development agenda over the last half century and will be a continuing challenge for development in the new millennium. These issues will have to be faced in a world that is very different from what it is today—a world that will create a new set of challenges and opportunities.

A changing world

The only thing that can be said with certainty about the future is that it will differ from the present. Any list of the most significant changes that the world will undergo in the next few decades is to some degree arbitrary. However, such a list might include the following possibilities.

The spread of democracy. The proportion of countries that are considered democratic has more than doubled since 1974. In a worldwide shift, people are demanding a larger say in the way their governments are run. In addition, demands for increased decentralization of power often accompany democratic trends.

Urbanization. Agriculture accounts for a larger share of production in low-income countries than it does in high-income economies. In Sub-Saharan Africa, for example, agriculture today is about one-quarter of GDP—not very different from the level of U.S. GDP in agri-

Box 9
The growing threat of water scarcity

Global population has doubled since 1940 but fresh water usage has risen fourfold. Estimates of the upper limit of usable freshwater suggest a second quadrupling of world water use is unlikely.[67] The prospect of water scarcity is very real with implications for regional peace, global food security, the growth of cities, and the location of industries. The problem is exacerbated by a very uneven distribution. Most available fresh water is found in industrial countries which have one-fifth of the world's population. However, nearly all of the 3 billion increase in global population expected by 2025 will be in developing countries where water is already scarce.

Slowing population growth rates are providing some reprieve, dramatically lowering the projections of people who will be living in countries subject to water stress or scarcity (defined as fresh water resources of under 1,700 and 1,000 cubic meters per person per year, respectively) in 2050—from 3.5 billion (more than tenfold the number in 1990) to 2 billion. But, the problem of water scarcity is expected to get worse before it gets better. Currently, only 166 million people in 18 countries are suffering from water scarcity, while almost 270 million more in 11 additional countries are considered water stressed.

The consequences will be felt most acutely in arid and semi-arid areas, in rapidly growing coastal regions and in the megacities of the developing world. Urbanization will enlarge the claims on available supplies because of higher per capita water consumption in urban areas. Twenty-five years ago less than 40 percent of the world's population lived in urban areas; 25 years in the future this share could reach 60 percent. The ability to supply safe, clean water and adequate sanitation, already stretched, will be severely tested.

One major outcome, with regional and even global consequences, is the greater likelihood of conflicts over water, in large part because of the imperatives of geography. Nearly 47 percent of the land area of the world, excluding Antarctica, falls within international water basins shared by two or more countries. There are 44 countries with at least 80 percent of their total areas within international basins. And the number of river and lake basins shared by two or more countries are now more than 300.

Water shortages will be especially adverse for agriculture, which takes 70–80 percent of all available fresh water in the world. Food security could be a casualty since the growth in food supply in recent decades has largely been fuelled by irrigation—both the expansion in area and productivity increases. Under current best practice coefficients, it will take 17 percent more water to feed the world's population in 2025. But agriculture is already competing for available water resources with urban and industrial uses and the competition will only intensify with time. Although technological advances are making desalination a feasible option for municipal and industrial usage in coastal areas, the costs remain much too high for agricultural purposes.

Preventing crises, regional disputes and their spillover effects calls for a mix of economic and institutional measures. The growing competition for water indicates that there will be benefits from treating and pricing it as an economic good. And the geography of river basins makes unavoidable the effort to search for cooperative arrangements. Both within and across countries, allocation and usage of water within a framework of clearly defined laws and policies and joint development of infrastructure for storing and distributing water would avoid economic inefficiencies associated with autarkic solutions. More importantly, only strategies involving basin-wide rather than national solutions will prove sustainable and advantageous for the majority of riparians.

culture at the beginning of the 20th century. However, two characteristics of economic development are working together to encourage migration away from rural areas and into cities: increased agricultural productivity (which allows fewer farmers to produce more food) and expanded economic opportunities in the manufacturing and service sectors. The world's urban population is set to rise by almost 1.5 billion people in the next 20 years, and in developing countries the share of the population living in urban areas is likely to rise from one-half to about two-thirds by 2025. This growth will have a significant effect on the political clout of cities and will make getting policy right at the municipal level even more important than it is today.

Demographic pressures. The world's population is likely to increase by at least another 4 billion by 2050—a huge number of people who will need to be fed, sheltered, and absorbed into the workforce. The age composition of the population will also shift as birthrates decline and life expectancies increase. The transition will be particularly rapid in the industrial world, where in 30 years one in four people will be over 65—up from one in seven today.[68] This shift will strongly influence global financial flows as an increasing number of retirees stop saving and instead begin to draw down their accumulated assets.

The revolution in information and communications technology. Economic output has traditionally been visualized as commodities and goods—wheat, coffee, shirts, or automobiles. This economic vision grows less accurate each year. In industrial economies the service sector has accounted for more than half of all output for decades, and a similar shift toward services is under way in developing countries. The growing importance of services means that knowledge—how to do things, how to communicate, how to work with other people—is becoming ever more important, overshadowing the natural resource base. It means that investment in human capital, including health and education, might become more urgent than investment in physical capital. It implies that economic output is becoming more "footloose," since many services and information can be shipped over phone wires or fiber-optic cable or even through the radio spectrum, increasing the range of choices for locating production. Improved communications technology—and continued improvements in the efficiency of international transport—have also facilitated the rapid increase in global trade and financial flows.[69]

Threats to the environment. A number of environmental problems will become significant threats to sustainable development if they are not addressed. Climate change from atmospheric concentrations of greenhouse gases and the growing rate of global species extinction are two of the most pressing, but others also demand attention, including disease, water shortages, and land degradation.

This report argues that the changes the world is already experiencing will greatly increase the importance of global and local (or supra- and subnational) institutions. In many cases the responses to economic, social, and environmental changes will require international cooperation under enhanced or completely new institutional structures. At the same time, governments will increasingly decentralize, devolving greater power to city and regional authorities. While the central authorities will continue to play an important role in coordinating and enforcing cooperative outcomes, decisions affecting people's lives will increasingly be taken at the international and local levels.

The movement toward a globalized and localized world with many more important players and voices from both above and below the national government level offers new opportunities for development and new challenges for governments. Grasping the opportunities and meeting the challenges requires building institutions that will shape and channel the forces of change to best serve the cause of sustainable development.

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Development thinking has followed a circuitous path over the last 50 years. At various times it has emphasized market failures and market successes, governments as active interventionists or passive enablers, openness to trade, saving and investment, education, financial stability, the spread of knowledge, macroeconomic stability, and more. The list of policies accepted as relevant to sustainable development is now longer than it was even 10 years ago, and some of the emphases have changed. Inflation remains a concern, for instance, but little evidence exists showing that low to moderate rates of inflation have significantly adverse effects on growth. On the other hand, increasing recognition is being given to the importance of strong financial institutions, and in the regulatory sphere the focus has shifted from deregulation to building an effective regulatory framework.

It would be presumptuous to predict which of these items will be high on policy agendas one or two decades from now. But even as the general understanding of development grows and evolves, one lesson remains. Understanding the process of development requires acknowledging both its complexity and the context in which it operates. Simple solutions—investments in physical and human capital, for instance, and unfettered markets—will not work in isolation. Governments, the private sector, civil society, and donor organizations need to work together in support of broad-based development.