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editors

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# Development Issues: Settled and Open

Shahid Yusuf and Joseph E. Stiglitz

A DEVELOPMENT ISSUE MAY BE defined as a matter regarding the course of development that demands resolution. Our intention in this paper is to present major development issues that will test researchers and policymakers in the decades ahead. As we enter the new century, whether we can sustain the achievements of the past 50 years and whittle away at the worsening problem of poverty (Figure 1) will depend on how these issues are tackled, on two levels—intellectual and practical. Each issue requires careful conceptualization and analysis. Only after such conceptualization and analysis can policies appropriate for a particular context be devised and implemented.

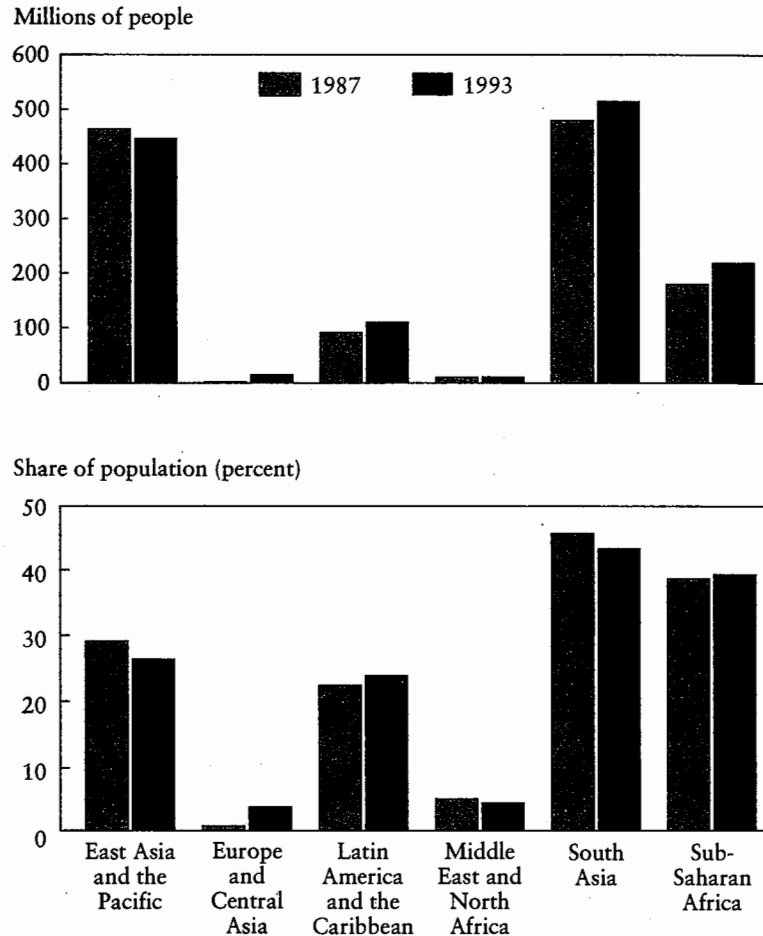
## Past Issues

For seven development issues, the years of intensive debate are behind us, although academic skirmishing continues and the econometric chiseling of coefficients remains a furious preoccupation for many. The solutions to these issues, while complex, have graduated to the realm of “normal science,” becoming a part of the common wisdom of development economics. This common wisdom serves as a foundation for policy in poor and industrial countries alike.<sup>1</sup>

### *What Are the Sources of Growth?*

Although a precise answer to this question has eluded the most diligent researchers, nearly 40 years of increasingly refined analysis has established the primary importance of capital accumulation and factor productivity that arise from research, learning, technological change, and improvements in the quality of labor. The contribution of human capi-

**Figure 1.** Population Living on Less than \$1 PPP a Day in Developing Regions, Numbers and Population Shares, 1987 and 1993



Note: PPP, purchasing power parity. Income is at 1985 prices, adjusted for PPP.  
Source: World Bank (1998).

tal, viewed by many as one of the principal drivers of growth in East Asia, remains contested, and even the role of capital is periodically challenged.<sup>2</sup> But such skepticism cannot dislodge the body of evidence, backed by intuition, that links economic growth with investment and

gains in productivity.<sup>3</sup> Thus, promoting investment in equipment and infrastructure and encouraging the accumulation of usable knowledge through a variety of channels are among the central tenets of development. Because investment must, to a large extent, be financed from domestic resources, raising the level of saving is integral to a pro-growth strategy.

#### *Does Macrostability Matter, and How Can It Be Sustained?*

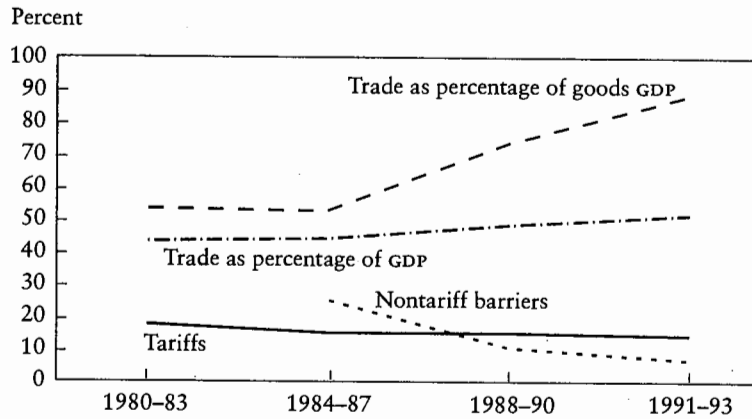
Concerns about stability arose from the inflationary turbulence of the 1970s and 1980s. The initial findings were equivocal: in countries such as Brazil and the Republic of Korea inflation did not appear to hamper growth, but experience from countries with moderate to high inflation revealed detrimental consequences for investment, equity, allocative efficiency, trade, and foreign direct investment (FDI). By the early 1990s, there was broad consensus that low and stable rates of inflation were desirable goals for developing countries, even though moderate rates of inflation—up to 40 percent a year—were not necessarily injurious to growth (Fischer 1993; Bruno and Easterly 1995; Barro 1997). Research has also shown that macrostability requires flexible labor markets and a prudent and coordinated mix of fiscal, monetary, and exchange rate policies—a mix now enshrined among the fundamentals of macroeconomic policy.

#### *Should Developing Countries Liberalize Trade?*

Following World War I and the Great Depression, countries blamed openness for their problems and retreated behind trade barriers (Skidelsky 1996). This policy course carried over into the post-World War II era, when the generation responsible for initiating development saw protection and import-substituting industrialization as the surest road to prosperity (Bruton 1998). Initially, import-substituting industrialization yielded good results, but by the 1980s it was becoming apparent that outward orientation, as practiced by the East Asian economies (under conditions of macrostability and organizational capability), was a more successful strategy on several counts (Rodrik 1998). Apart from the allocative and dynamic gains from freer trade, more open economies showed greater resilience in the face of shocks, attracted larger flows of FDI, enhanced their growth rates through the link between exports and domestic investment, and realized technological progress through export competition, as well as increased access to more technologically sophisticated imports (Lawrence and Weinstein 2000).

By the late 1980s, the debt crisis that afflicted many developing countries in the early 1980s—along with the example of East Asian countries that used exports to overcome the crisis and sustain rapid

Figure 2. Trade, Tariffs, and Nontariff Barriers, East Asia, 1980-94



Note: The figures for tariff and nontariff barriers are weighted averages for all product categories.

Source: Rodrik (1998); World Bank (1998).

growth—caused the pendulum to swing firmly in favor of trade liberalization. Most developing countries became committed to lowering trade barriers by acceding to the rules of the General Agreement on Tariffs and Trade (GATT) and its successor, the World Trade Organization (WTO), and by furthering the cause of international trade disciplines. (Figure 2 illustrates the effect of lower trade barriers on the volume of trade in East Asia.) This trend is reflected in the growth of trade volume. Some countries, however, lagged behind and saw their trade stagnate. The completion of the Uruguay Round of multilateral trade negotiations and the creation of the WTO in 1994 imparted additional momentum to trade liberalization and the elaboration of rules embracing services, intellectual property rights, and FDI. A framework of rules is being put in place, although a multilateral agreement governing FDI is still years away. Barring a reversal stemming from tensions generated by the crisis of the late 1990s, trade liberalization, under the auspices of enforceable multilateral rules, will remain a central tenet of policy for developing countries and the principal avenue for their integration into the global economy.

#### How Crucial Are Property Rights?

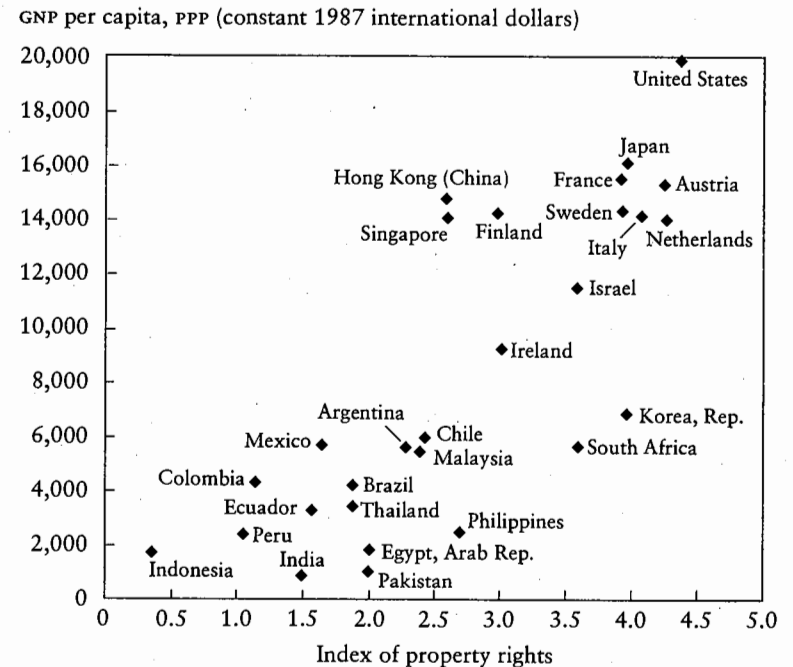
The answer that is now accepted, virtually without dispute, is that secure and enforceable property rights are the lifeblood of an efficient free-market economy. By improving investor confidence, secure prop-

erty rights boost the flow of capital into productive activities and encourage income growth (Figure 3).<sup>4</sup> Secure property rights also increase FDI and, through it, the volume of both trade and technology transfer.

In the majority of developing countries, many property rights are informally defined and weakly enforced. It is widely accepted that this state of affairs constrains investment. In addition, the recent experience of transition economies has led to general agreement that formally defined rights enjoying the sanction of law are much more useful for economic growth than are informal rights buttressed by custom and enforced through community or extralegal mechanisms.<sup>5</sup>

For transition economies and for most developing countries, maximizing the potential benefits of the market requires that rights be defined and clear enforcement mechanisms be established to protect these rights. In a number of cases this involves fresh delineation of the state's role with respect to the private sector, a substantial augmentation of the state's regulatory and legal capability, and an assertion of the state's

Figure 3. Property Rights Index and Per Capita Income, Selected Countries, 1990



Sources: Ginarte and Park (1997); World Bank (1999).

determination to implement legal and administrative rulings fully and impartially. These measures have their costs; as Holmes and Sunstein (1999: 15) point out, "To the obvious truth that rights depend on government must be added a logical corollary, one rich with implications: rights cost money. Rights cannot be protected or enforced without public funding and support. . . . The right to freedom of contract has public costs no less than the right to health care, the right to freedom of speech no less than the right to decent housing. All rights make claims upon the public Treasury."

History suggests that the struggle to define property rights and place them on a firm legal footing will be a long one (North and Weingast 1989). But in an integrating world environment where markets are the axes of economic activity, the necessity of doing so is now unquestioned.

#### *Is Reducing Poverty a Function of Growth and Asset Accumulation or of Poverty Nets?*

The last quarter of this century is distinctive in its acceptance of the reduction of poverty in developing countries as one of humankind's principal goals (World Bank 1990). With over 1.2 billion people living on less than a dollar a day, poverty ranks at the very top of the development agenda.

As we have addressed this challenge, our knowledge about poverty has matured substantially, especially over the past decade. First, there is a far more detailed and nuanced understanding of the nature of poverty. New tools have been developed to measure poverty; poverty traps are better appreciated; the linkages between poverty and other socioeconomic tendencies are in sharper focus; and the dynamics of poverty are undergirded with more perceptive analysis.

Second, the eventual cure for poverty is not pegged exclusively to long-term policy initiatives to maximize growth and improve market functioning. It is now clear that trickle-down, which can take many years to reach the lower income levels, must be supplemented by policies of inclusion that lessen sharp disparities in incomes and assets, enhance human capital accumulation and employment opportunities, and help provide safety nets for the more vulnerable elements of a society.<sup>6</sup>

As experience accumulates, the mix and quality of policy initiatives will undoubtedly change. But the debate is now about exactly how governments and communities can tackle poverty in specific contexts, given the available resources, social capital, and administrative capability.

#### *Can Developing Countries Defer or Downplay Environmental Problems?*

After almost two decades of observation, analysis, heated political debate, and assessment of mounting environmental degradation, it has

become clear that there is no longer a tradeoff between growth and measures for ensuring environmental sustainability. All developing countries now face the costs of environmental neglect, which in some instances are quite severe. (Environmental degradation may reduce China's gross domestic product by as much as 7 percent.) The salience of concerns regarding ozone depletion, global warming, and biodiversity has also brought out the urgent need for collective action to contain trends that could have potentially disastrous consequences for the world.

Recent research has dissipated much of the fog surrounding earlier discussions. It is clear that developing countries must consciously promote sustainable development with due attention to environmental exigencies. It is also apparent that many countries can immediately embark on win-win policies that lessen environmental costs without diminishing growth prospects. For example, Poland and China have been able to keep carbon dioxide emissions down while achieving economic growth. In addition, possibilities for broader measures are under constant discussion at the international and national levels. Here, the issue is not settled. The awareness that we are eating into our fund of environmental assets has sharpened appreciably through the spread of information and the activities of nongovernmental organizations (NGOs) and international agencies. Furthermore, the knowledge needed to manage the environment sustainably and to reduce damaging emissions is constantly increasing. Still, our understanding of how to arrive at viable international agreements remains sparse. This is a live issue to which we return below.

The readiness of developing countries to pursue environmentally friendly policies is a function of costs, political will, a clearer sense of what needs to be done and how, and the capacity to implement particular actions. Tradeoffs between environmental protection and economic growth are no longer an issue. Only in the short run can depletion of environmental resources lead to growth.

#### *How Closely Should the State Manage and Regulate Development?*

Of the major issues of the past half-century, the role of the state has been among the most contentious. At one extreme, the verdict of experience is unequivocal: centrally planned socialism has been convincingly discredited and is no longer viewed as a viable option. Variants of the market system now provide armatures for development throughout the world.

It is also clear, however, that the state has important roles to play. The issue is not whether the state should direct macroeconomic policy, provide public goods, be responsible for safety nets, support privatization, regulate natural monopolies, or manage competition: it should do all these things.<sup>7</sup> A central policy concern is how to equip

the state with the administrative capacity to perform these functions efficiently.

What is controversial is whether the state should, in certain circumstances, go beyond these well-posted limits and take a more active part in directing economic activity. Possible policy approaches include direct ownership or close management of industry, direct sponsorship of pilot production facilities, credit allocation, provision of export subsidies, and other strategies for governing the market. Most experience suggests that when a state-owned or state-favored industry is granted preferred or monopoly status—and managed in a way that offers few institutional incentives for high levels of service or productivity growth—direct government support of that industry will prove wasteful or even counterproductive. East Asia offers the primary counterexample; within the geopolitical milieu of East Asia from the 1960s to the 1980s, the state's aggressive role apparently stimulated outward-oriented growth (Crone 1988; Stiglitz 1996; Stiglitz and Uy 1996). The extraordinary growth record of East Asia over recent decades has not been erased by the 1997–99 economic crisis. Over time, however, state intervention in those economies may have subtly shifted from collaborative capitalism to a crony capitalism in which close relationships between government and business focus more on rent-seeking than on raising productivity and enabling aggressive competition in the world economy.

To realize development goals, large and small, it is crucial in East Asia and elsewhere to have a competent, relatively honest, and well-motivated state bureaucracy that can work closely with private and nongovernmental entities.<sup>8</sup> How to create and maintain such a bureaucracy is an issue that is important today and will continue to be important in the early 21st century.

### Present Trends

The understanding of development that we command today has been hard-won. It reflects enlightened theorizing, painstaking analysis, an unsparing interrogation of practical experience, and the perspective of a half-century. Many doubts remain regarding the issues sketched above, and these doubts will continue to spark controversy, but we can see our way ahead and can proceed to devising better technical solutions. Even as some of the problems that were critically important in recent decades have been resolved, however, a second generation of equally demanding issues has arisen.

The issues that will engage development thinking have their roots in several ongoing trends with potentially vast consequences. Each of these trends deserves attention.

### *Globalization*

Globalization means the closer integration of the world economy resulting from increasing flows of trade, ideas, and capital and the emergence of multicountry production networks spawned by the investment activities of transnational corporations. Multinationals account for a large share of world production, and perhaps one third of all trade is within firms. But globalism extends beyond economic interdependence to embrace the transformation of time and space as a result of the communications revolution and the spread of information technology. People are now more directly affected by distant events. By the same token, microlevel actions can have macrolevel consequences. A change in the use of fuels or in the energy intensity of production in one part of the world can have significant effects on a host of countries.

The dramatic growth of trade is a major aspect of globalization.<sup>9</sup> Over the past 10 years, trade in goods and services has grown at more than twice the rate of global gross domestic product (GDP), and developing countries' share of trade has risen from 23 to 29 percent.<sup>10</sup> Increasing numbers of firms from developing countries, like their industrial-country counterparts, engage in transnational production and adopt a global perspective in structuring their operations (Prahalad and Liebenenthal 1998; United Nations 1998a).

In driving the unparalleled global spread of ideas and innovations, these trade and investment flows have been underpinned by a series of eight rounds of multilateral negotiations to reduce trade barriers, starting with the Geneva Round in 1947. The Uruguay Round, signed in 1994, was the latest and most ambitious. Its lowering of trade barriers is expected to yield economic gains of some US\$192 billion, including US\$75 billion for developing countries. Its institutional invention, the WTO, allows nations to lock in unilateral trade liberalization—a vital action for development. Of equal importance will be institutional steps to stimulate trade in services, which is likely to be the fastest-growing component in the future.

The acute problems of 1997–99 spotlight the financial interdependencies of countries and are subjecting these interdependencies to intense scrutiny. Although still concentrated in a dozen or so developing nations, international capital flows are rapidly becoming a major force in development, raising the stakes for financial market development, regulation, and liberalization. Financial flows increased dramatically in the 1990s, and although they slipped in 1998, there are good reasons to believe that they will resume their upward trend. Technological developments in computing and telecommunications have drastically lowered transaction costs, and these costs will continue to fall.<sup>11</sup> Alongside these developments, financial innovation has contained risks and of-

ferred a rich menu of investment possibilities—another trend that will not be arrested, because the potential rewards are so attractive.<sup>12</sup> More significantly, the supply of financial resources will expand over the next two decades, fed by pension and mutual funds in Western societies.

The rising supply of funds will be matched, if not exceeded, by rising demand, especially from poor countries. Eighty-five percent of the world's population is in countries that are still developing. Half of that population lives in cities. To modernize, industrialize, and urbanize, developing countries will require huge amounts of capital. Most of this capital will come from domestic savings, but well-run developing countries offering solid returns will be able to supplement their domestic savings with resources from all over the globe (Vamvakidis and Wacziarg 1998). Developing countries are also becoming the fastest-growing markets for the products of multinational corporations (United Nations 1998a), and an increasing volume of foreign direct investment will find its way to them, providing jobs for their workers.<sup>13</sup>

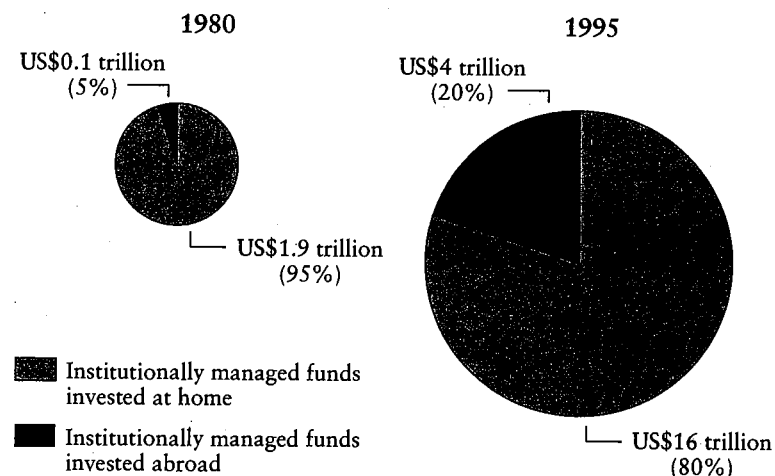
The financial markets of the leading industrial nations have melded into a global financial system, permitting ever-larger amounts of capital to be allocated in their economies and to developing and transition economies. Gross FDI by these nations has increased more than 30-fold since 1970.<sup>14</sup> But this growth pales in comparison with worldwide portfolio investment flows, which have shot up to nearly 200 times their 1970 total, exceeding US\$1 trillion in 1997.

Mutual funds, hedge funds, pension funds, insurance companies, and other investment and asset managers now compete for national savings. Although this is true primarily in industrial nations, the consequences for developing countries could be significant because institutional investors are diversifying their portfolios internationally, enlarging the pool of potentially available financial capital. In 1995 they managed US\$20 trillion, of which an average of 20 percent was invested abroad. This represents a 10-fold increase in the funds held by these institutions and a 40-fold increase in their investment abroad since 1980 (see Figure 4).

### Localization

Globalization has led to widened horizons, greater interdependence, and increased awareness of happenings beyond the confines of the community and the nation. It might also be spurring a parallel tendency toward localization—a crystallizing of local or ethnic identities that is, in part, a reaction to globalism.<sup>15</sup> Localization represents a demand for greater political, fiscal, and administrative autonomy in a post-Cold War geopolitical environment in which the pull of centrifugal forces on states has grown stronger. The assertion of identity and the demand for autonomy are tied to the upsurge of participatory politics that has given

Figure 4. Domestic and Foreign Investment by Institutionally Managed Funds, 1980 and 1995



Source: IMF (1998b).

many people a voice and provided foci for organization. Localization trends also reflect the emergence of economic regions comprising linked industrial clusters that have exploited powerful agglomeration economies to enter a virtuous circle of development.<sup>16</sup>

Localization was already on the horizon in the late 1980s. Since then, it has moved toward the foreground. Localization is not exclusively a result of a change in the international political climate; in many countries it stems from acute dissatisfaction with the central government's ability to maintain law and order and to fulfill its promises to raise income, increase the number of jobs, and provide public services. Ethnic divisions, widening regional income disparities, and deepening inequalities between skilled and unskilled workers have at times fanned the discontent, while the rise of national political activity has opened avenues for articulating demands for local autonomy.

The proliferation of new states over the past decade provides strong evidence of centrifugal forces (Alesina and Spolaore 1997; Boniface 1998). In some countries, such as China, Germany, and Italy, prospering provinces are increasingly reluctant to finance transfers to poorer parts of the country. Meanwhile urbanization, by concentrating people in cities, has both facilitated organization and the expression of voice and imparted a municipal focus to decentralization. The discretionary

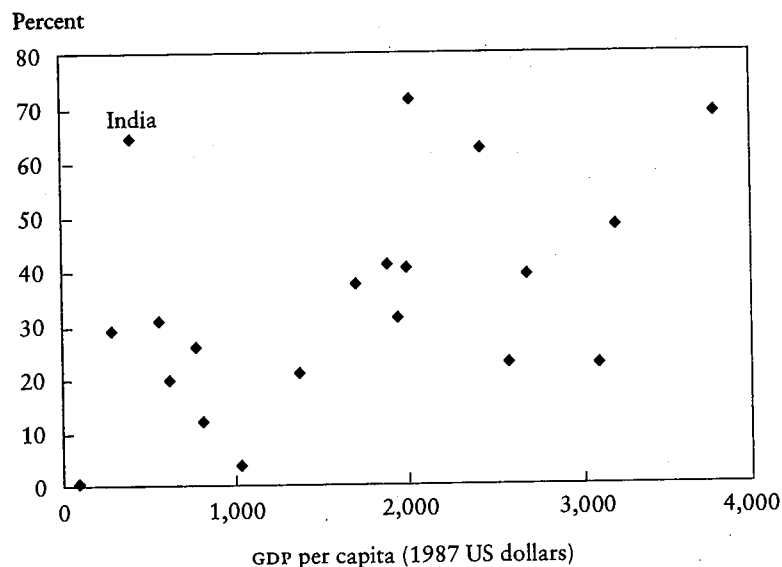
authority of the state has been narrowed, reducing its leverage in bargaining with subnational players. In some instances, desire for local autonomy coincides with the central government's own interest in shedding expenditure responsibilities that exceed its fiscal capability.

These forces drive localization to differing degrees in each developing country. Of 75 developing and transition economies with populations of more than 5 million, 63 are devolving more authority to local governments (Davoodi and Zou 1998). Figure 5 illustrates the same pattern for a sample of 22 developing countries, where the share of local and state governments in total government consumption and investment expenditure is rising.

### *Environmental Degradation*

Environmental pressures, long an international concern, have acquired new urgency. Both the content and the quality of environmental discourse have been completely transformed in the past 20 years. The sheer weight of authoritative scientific evidence now commands the attention of governments and the public. Moreover, with globalization

Figure 5. Share of Subnational Government in Total Government Consumption and Investment



Sources: IMF (1998a); World Bank (1998).

has come new recognition of shared responsibility for the environment. Numerous organizations with a deep interest in this issue, including international, governmental, and nongovernmental organizations, have appeared on the international scene. These bodies have made full use of both the associational arena offered by the United Nations system and the enhanced reach attainable through the new communications technologies to press for stronger institutions to regulate the global commons (Meyer and others 1998).

Global warming, the loss of biodiversity, and other problems related to the global commons are slowly being recognized as problems that the community of nations must take on collectively and that, if left unattended, will worsen as the planet becomes more crowded and development increases resource utilization. This constitutes a major shift in development perspective, even though the implications of environmental change continue to be hotly contested.<sup>17</sup>

Ten years ago, it was possible to brush aside environmental challenges and to emphasize the primacy of growth, stability, and poverty reduction. The world of the 21st century will allow us no such luxury. We can no longer even afford to wait until we have the full scientific picture; action on a broad front is urgently needed to achieve environmental sustainability. Even if the consequences of global warming prove less severe than is now believed, taking immediate steps to arrest the process is cost-effective and appropriate in view of current risk perceptions and the considerable inertia in environmental systems, which could greatly increase mitigation expenses at a later stage.

### *Demographic Change*

The past two decades have witnessed both a gradual tapering in the global fertility rate and a widening gap in population growth rates between countries—a gap that results in populations with widely varying age structures.<sup>18</sup> In most industrial countries and in a substantial number of developing countries, populations are increasing very slowly; in these countries, which include China and several East European economies, the share of older age groups will expand substantially in the next three decades. In other developing countries the situation is quite different; populations are still growing at a rapid clip, and close to half the population is under age 18.

Global population growth slowed from 2.1 percent in the 1960s to 1.5 percent in the late 1990s. The global fertility rate is about 2.7 and is approaching the replacement rate of 2.1. Nevertheless, largely because of the family size preferences of the 2 billion people under age 20 living in developing countries today, world population will rise from 6 billion in 1999 to more than 8 billion in 2025 (Table 1). The sharpest population increases—in Africa, the Middle East, and South Asia—will place



Table 1. World Population by Region, 1995, and Estimates for 2025 and 2050

Region	1995	2025	2050
World	5.69	8.04	9.37
Industrial regions	1.17	1.22	1.16
Developing regions	4.52	6.82	8.20
Africa	0.72	1.45	2.05
Asia	3.47	4.83	5.49
Europe	0.73	0.70	0.64
Latin America	0.48	0.69	0.81
North America	0.30	0.37	0.38

Source: United Nations (1998c).

tremendous stresses on limited natural resources and fragile environments.<sup>19</sup> Moreover, the share of developing-country populations living in cities will rise from one half to well over three quarters. It is worth remembering that in 1900 the earth contained about 1.7 billion people, the vast majority of whom lived in rural areas (Gelbard, Haub, and Kent 1999).

The current population trends have serious economic and political implications. A stagnant and aging population could influence economic growth rates, domestic saving, and the need for social safety nets. Large cohorts of young people will enormously increase the demand for jobs. In countries where growth rates generate insufficient demand for labor, there is high pressure to emigrate and great potential for political turbulence. Combined with the assertion of local identities, an expanding population enlarges the risk of political tension and conflict that is exacerbated by the notable ethnic divisions in many developing countries. Moreover, the increased potential for international migration raises the likelihood of ethnic rivalry in countries that receive streams of migrants.

There is a brighter side to the demographic profile in countries such as Bangladesh that have a youthful population but declining fertility. Here, the falling dependency ratio provides conditions for higher saving and growth, similar to the conditions East Asian economies have experienced. Whether countries can take advantage of this opportunity depends greatly on the domestic and external policy environment.

#### Food and Water Security

In some regions, population pressure, in conjunction with environmental degradation and global warming, could reduce food security, sharpen frictions over riparian issues, and substantially increase the severity of

climate-related shocks. Currently, close to a third of the world's population lives under moderate to severe water stress; this is particularly problematic in the Middle East and North Africa, where 13 countries faced absolute water scarcity in 1990. By 2025, 48 countries, with a total population of 2.8 billion—about one third of the world's projected population—will suffer from water scarcity, and another 9 including China and Pakistan, will be exposed to water stress.<sup>20</sup> The situation could be especially acute in countries such as Egypt, which already uses 97 percent of its available water and faces a growing population. In India it is estimated that by 2025 demand will equal 92 percent of the water supply.<sup>21</sup> Urbanization and industrial development will greatly increase demand for water; industry currently accounts for 50 percent of water use in Europe but for only 5 percent in Africa (Feder and LeMoigne 1994).

In the past, food insecurity has arisen as a source of concern only to dissipate in the face of abundant food supplies. However, uncertainty about future climatic conditions and the diminishing availability of usable water in some densely populated regions introduces additional imponderables. The decline in food supplies could be sharpest at lower latitudes.<sup>22</sup> The increase in grain yields has slowed since 1990, and plant breeders may be approaching the limits of genetic yield potential (see Table 2). Future increases in developing countries' grain output will depend not only on dissemination of better husbandry practices but also on soil, water, and climate conditions (Brown 1997; *Science*, August 22, 1997).

#### Urbanization

Localizing tendencies, together with a concentration of people in cities, will make urban areas the focus of most economic and political activities. As the 21st century begins, about half of the world's population lives in cities. For higher-income countries in Latin America, Eastern

Table 2. Annual Change in World Grain Yields by Decade, 1950–95

Years	Total grain	Rice	Wheat	Corn	Other grains
1950–60	2.0	1.4	1.7	2.6	—
1960–70	2.5	2.1	2.9	2.4	2.3
1970–80	1.9	1.7	2.1	2.7	0.4
1980–90	2.2	2.4	2.9	1.3	1.7
1990–95	0.7	1.0	0.1	1.7	-0.8

— Not available.

Source: Brown (1997).

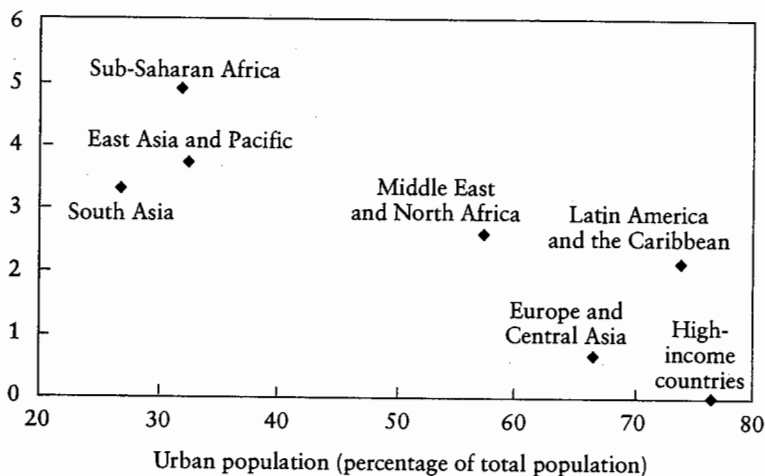
Europe, and the Middle East, urbanization has already passed its peak, although the social and institutional transformation to an urban society is still occurring in all middle-income countries.

As many Latin American cities enlarge their roles on the national and international stages, Latin American countries are rewriting constitutional rules to regulate and define political and fiscal decentralization. In Eastern Europe and Central Asia governments are struggling to rationalize the structure of cities that have inherited large infrastructures with nonmarket configurations of economic activity and relatively inchoate property rights. In Asia and Africa urbanization is low but is increasing rapidly (see Figure 6), with social and institutional transformation still in its early stages.

Although a current and reliable count of the urban poor in developing countries is not yet available, scattered evidence suggests that several hundred million people are in this category, and the total is rising steadily.<sup>23</sup> As land and job opportunities in the countryside become scarce, more of the rural poor in Brazil, China, India, and many African countries are heading for urban areas. A small fraction finds formal employment. The rest, at least initially, eke out a living in the informal sector or by producing foodstuffs that can be marketed in the city (Losada and others 1998). For many, urban life is precarious and

Figure 6. Urbanization by Region, 1996

Annual growth rate of urban population (percent)



Source: United Nations (1998e).

involves low and uncertain earnings, a dependence on street foods of uneven quality and safety, lack of shelter, exposure to pollution from a variety of sources, and the threat of violence.

The institutions, social capital, and politics that served a stable, dispersed rural population do not transfer intact to cities. To successfully meet the challenges of industrialization and of population movements into dense urban areas, new institutions and legal structures are required. Much social capital is lost and must be replaced, reconstituted, and augmented.<sup>24</sup> Rural social and market relations, which provide insurance against risks through either patron-client relations or single-stranded market-based interaction, need to be replaced by urban safety nets, formal and informal.<sup>25</sup> Where municipal services are insufficient, communities need to provide services such as waste disposal and to institute their own rules to limit pollution. New and demanding technical, regulatory, and management tasks fall to local governments.

Institutional transitions in cities are influenced by the fact that growing cities have relatively diverse, young, and often disproportionately male populations that are a source of energy and entrepreneurship—although, if jobs are scarce, they can also be a cause of unrest and crime (Bloom and Williamson 1998). Cities are where the middle class emerges and expands. They are focal points for the introduction of modern consumer goods and services and exposure to Western cultures and institutions—a phenomenon accelerated by globalization (Crystal 1997). Each city develops a social order, with demands for local voice and national-level representation, to assess and meet its own unique governance needs.

In several countries, development has led to the emergence of urban industrial networks embracing several municipalities. These interlaced industrial regions account for a sizable share of GDP, exports, and tax revenue (Wu 1997; Scott 1998). Such regions, already a feature of high-income countries such as Germany, Italy, and the United States, have now appeared in Brazil, China, and India. These regions view themselves as local pegs in a globalizing world. Many now see that their interests may not be identical with national interests and look for a more autonomous role in the global trading system. By creating an environment of openness framed by international rules, globalization has made some degree of regional autonomy more feasible.

### Issues for the 21st Century

From current global trends arise a range of issues that can be grouped under two headings:

- Multilevel governance and regulation issues
- Issues related to managing resources—human, capital, and natural.

### Governance and Regulation

In a world where global and local concerns compete with and occasionally overshadow national concerns, issues of governance are coming to dominate many aspects of the long-running debate about the role of government. The vast increase in international transactions and linkages requires myriad rules, standards, conventions, and protocols. Without these, coordination failures may occur and volatility could increase, enlarging the risk premiums on trade and capital flows and raising transaction costs. To reap the benefits of globalization, it is necessary to have international institutions that put in place commonly agreed on and widely observed rules. With continuing integration, the need for rules to mediate transactions becomes even greater. This means that governments must be willing to accept bounds on their sovereignty and act in concert, creating institutions that confine the permissible within an agreed framework that is either buttressed by enforcement mechanisms (such as the WTO) or informally observed (as in the Basle Banking Accord).<sup>26</sup> Bit by bit, the steady accretion of international institutions, transnational corporations, and NGOs is making global governance a reality in many spheres, constraining the writ of national governments.

The transition from centralized and hierarchical government structures to multicentric and participatory forms of governance is emerging even more insistently within countries because of localizing tendencies. The end of the Cold War extinguished the rivalry between the superpowers that was an important source of geopolitical tension. It also removed one of the supports for centralized governments—a support that was capable of mobilizing the full resources of the country for purposes of security (Deng and Lyons 1998). In the post-Cold War era, fewer countries face external foes, and in a globalizing world, prosperity is unrelated to the acquisition of territory. Hence, the original reason for the creation of states—to define and protect borders by military means—carries far less weight. Likewise, territorial aggrandizement is a goal very few countries would consider pursuing.

There is another reason why the state's capacity to make war or defend against external threat appears less compelling. This is related to the spread of democracy and the apparent reluctance of democracies to pursue their policy objectives by warlike means (Weart 1998). The dismantling of the Berlin Wall did not extinguish humankind's aggressiveness. Armed conflict and violence are unlikely to diminish (Keegan 1998). But wars between states may erupt less frequently.

However, the wars between states that do erupt could become immensely more destructive as countries acquire nuclear and biological weapon technologies. Table 3 shows the costliness of even short-term conventional conflicts over the past 20 years.<sup>27</sup> In this milieu, the pull

Table 3. Costs of 20th-Century Wars  
(billions of 1995 U.S. dollars)

<i>Conflict</i>	<i>Cost</i>
World War I	2,850
World War II	4,000
Korean War	340
Suez War	13
Vietnam War	720
Arab-Israeli Six-Day War	3
Yom Kippur War	21
Afghanistan War	116
Iran-Iraq War	150
Falklands War	5
Gulf War	102

Sources: International Institute for Strategic Studies; *Financial Times* April 9, 1999.

of local identity, the quest for greater autonomy, and the demand for rights by groups as well as by individuals will lead a shift away from centralization toward forms of governance that cannot be quelled by pointing to external threats. Thus, the elaboration of international governance will be matched by institutions of local governance that correspond to the morphology of localization. Authority will devolve downward from the center to varying degrees, depending on the circumstances.

There is another side to national governance: the regulation of market entities by the state in the interest of efficiency, equity, and competition. The role of markets is increasing in all developing and transition economies. This trend is propelled by structural reforms, the deliberate pursuit of openness, a conscious turn away from socialism, and the unfolding of privatization programs. The public sector is shrinking, and the task of public agencies is no longer production but, instead, improvement of market function through monitoring and regulation. The state operates as an enabling hand in a predominantly market economy, in many sectors retreating from production to the provision of certain public goods. The enabling role is multisectoral but is more delineated than in the past. Like other governance activities, it has to do with creating, monitoring, and enforcing rules. The state eschews attempts at control in favor of more evenly balanced interaction between itself and other sectors.

A balanced relationship between the public and private spheres is also being dictated by the growing competition between countries for foreign investment and by the market power exercised by many interests. The rewards of FDI—in the form of increased exports, employment, and total factor productivity—are highly attractive for countries

that are short of capital, technology, and market access. Hence, investors have plenty of choices. They can demand market-friendly conditions—a style of governance and incentives comparable to those of the more developed countries. The terms of the relationship between the state and industry are also changed by the fact that many of the larger investors are giant multinationals with significant power in the global marketplace. Governments in developing countries can no longer exert bureaucratic control; they can, however, exercise regulatory oversight subject to rules.

If states are to retain their integrity and achieve viable governance regimes, a major concern will be the establishment of constitutional provisions and legal mechanisms that ensure basic rights and scope for participatory politics. There are at least two dimensions to political activity. One is national and relates to the selection of individuals who will direct the central government. A second dimension, which is gaining significance as the perception of local identities grows, is the local or municipal politics that often have a direct bearing on people's daily lives.

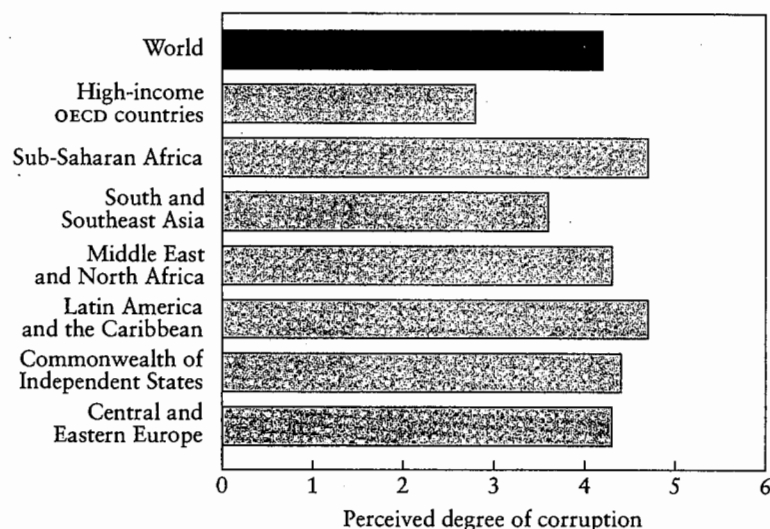
For most developing countries, participatory politics is a relatively new experience, one based on institutions in Western countries with different traditions, mores, and social relations. These transplants and the associated framework of legally enforceable rights and patterns of behavior have been slow to take root. A number of countries that have recently embraced participatory politics are nominally democratic, but very few deliver on the promise of democracy at the national or local levels. Corruption, red tape, ineffectual policymaking, and inefficient public organization are the bane of voters newly introduced to democracy (see Figure 7). Even in countries where participatory politics has found roots in indigenous culture, the political system has yet to reach a stage in which it permits ease of entry to individuals with strong leadership qualities and the capacity to present appealing and forward-looking programs to voters.

Participatory politics in developing countries, while it may represent a significant advance over the authoritarianism of yesteryear, has in general failed to provide the newly enfranchised with good government, substantially improved economic outcomes, and real choices. In a world subject to the forces of globalization and localization, a failure of governance poses a grave risk to the stability of developing countries and is arguably the most serious impediment to future growth.

There are no simple solutions to the problem of ineffectual governance. The problem must be addressed by tackling at least five different issues: participatory politics, organizational capability, decentralization, inequality, and urban governance.

*Participatory Politics.* A formal basis for good governance can be secured by devising constitutional ground rules for national politics and

Figure 7. Local Entrepreneurs' Perceptions of State Corruption



Note: Local entrepreneurs were asked to rank corruption on a scale from 1 (no problem) to 6 (extreme problem).

Source: Brunetti, Kisunko, and Weder (1997).

institutions that define the rights of the electorate, as well as the responsibilities of elected representatives. A necessary first step is to set in place credible rules that are fair and enforceable and that result in fruitful competition between a small number of well-organized political parties. But formulating such rules is difficult, and very few developing countries have built a legal infrastructure that has endured. There are plenty of good ideas in the air, and there is considerable experience against which to test them. Nevertheless, creating a few clear guidelines has proved elusive. Finding an institutional framework for viable, context-friendly, participatory policies that can be supported by organizations and resources is surely one of the priorities for development thinking.

*Organizational Capability.* Getting the politics right will not yield meaningful results until developing countries can find ways to strengthen public organizations. The failure of organizations has been a consistent brake on progress. Furthermore, the importance of organizational efficiency will only increase with the swelling flow of information and the

growing duties of state agencies that shoulder complex regulatory responsibilities such as the successful oversight of privatization.<sup>28</sup>

Research on public bureaucracies has identified three main weaknesses (Grindle 1997; Evans 1998):

- There is a *chronic shortage of skills*. Public agencies struggle to attract adequate numbers of talented people and have a poor track record for cultivating skills in-house and retaining trained individuals. Islands of expensively created bureaucratic excellence have vanished in all but a handful of countries.

- *Management incentives and organization structure* are generally inadequate and highly resistant to reform, even with the best technical assistance.

- The *institutional environment* within which public bodies operate is often not conducive to efficiency and accountability. By and large, constitutionally mandated oversight is rarely effective, legal safeguards insufficiently enforce agency responsibility, and monitoring by the press or NGOs has little effect. More recently, international pressure has been shown to improve organizational performance on occasion—but only in special circumstances, and rarely in a way that leaves a lasting impression.

Building organizational capability is vital for good governance and development. It has attracted a vast amount of attention and billions of dollars in international assistance. It remains a live issue, however, and weakness of organizational capability will continue to undermine efforts in other areas.

*Decentralization.* The centrifugal forces released by localizing tendencies could easily become seriously disruptive for many countries. Experience during the past decade points toward not only an upsurge of economic tensions between regions but also the possibility of armed conflict. In fact, civil strife and internal wars—possibly leading to secession—are bigger threats than conflict between nations. This has become painfully apparent in southeastern Europe and parts of Sub-Saharan Africa. Civil wars are not only more destructive than international wars; they also undermine the state and cause a loss of GDP during and after the conflict.<sup>29</sup> Clearly, processes of decentralization and rules governing relationships between the center and subnational entities must be crafted consultatively and with a close eye to the local context. This calls for sound and tested general rules, along with detailed local knowledge.

Although decentralization has been high on the development agenda for some time, processes of decentralization have occurred in decidedly uneven ways. General fiscal rules for effective decentralization provide guidance, but there is much less clarity about how to sequence decen-

tralization or about political rules for sharing power and wealth between the center and subnational entities. Nor is there much clarity about building organizational capacities so that provinces and municipalities can make the best use of the discretionary authority devolved to them. There is no dearth of proposals, but proposals have failed to resolve the issue. The push to decentralize only increases the urgency of resolving important decentralization issues.

*Inequality.* The ambivalence toward participatory politics in developing countries, the worldwide trend toward localization, and increasing levels of violence all draw some of their impetus from high and growing levels of inequality. Between the mid-1960s and the mid-1990s, the poorest 20 percent of the world population saw its share of income fall from 2.3 to 1.4 percent. Meanwhile the share of the wealthiest quintile increased from 70 to 85 percent (UNDP 1996).

Although poverty has declined in many countries—a significant achievement—the rise in inequality is profoundly disturbing. This rise is leading to a growing gap between affluent middle and upper classes and a relatively disadvantaged majority that is falling further and further behind, even though per capita incomes may be increasing.

The disadvantaged often feel politically marginalized and lacking in voice. This breeds apathy, an unwillingness to participate, and, ultimately, anger. Democratic politics is hollowed out, and institutions have little chance of securing legitimacy. As a result, political change and the desirable transition from centralized government to a more participatory governance can stall.

Widening regional inequalities can give rise to tensions that are capable of tearing countries apart. Cross-regional inequality is one of the main drivers of localization. Up to a point, such inequality can be papered over by political compacts and rules for fiscal transfers. But making these work requires mature and resilient political institutions, along with a durable sense of national identity. Where such institutions and such a sense of identity are absent—as in the majority of developing countries—the strains quickly begin to show, and only a very strong center can even temporarily ward off the efforts of richer provinces to prevent resource transfers to poorer ones.

Research shows that regions within countries are slowly converging. Unfortunately, the rate of convergence is modest even in the fastest-growing economies. In many instances the maturing of political institutions—which could provide the glue to hold countries together—may not be able to compensate for this lag.

People outside cities may be insulated from the violent consequences of political apathy and regional economic divergence, but urban dwellers—a growing majority—cannot avoid the violence that may come in the wake of widening social cleavages. This violence is a persistent and

worsening economic hemorrhage in developing countries.<sup>30</sup> It damages the quality of life of all citizens, especially the poor. Often, the government appears helpless to control its spread, and public security forces are suspected of abetting the perpetrators of organized resistance. As a result, the state loses credibility, and it becomes even more difficult to create desirable governance institutions.

Containing or reversing inequality is likely to be integral to achieving good governance and could influence longer-term growth prospects.<sup>31</sup> Research has succeeded in measuring the march of inequality, identifying its multifarious causes, and showing how small reductions in inequality can have large effects on poverty. However, attempts to redistribute income or assets have achieved only limited success. Land reforms favoring the poor face strong opposition from entrenched elites. There is resistance to the use of progressive direct taxes to finance targeted poverty alleviation programs. And the sorry policy implementation record of many governments in developing countries makes it difficult to win tax compliance (Alesina and Spolaore 1997).

This leaves as remedies education and training programs and measures to provide land rights to slum dwellers and squatters in urban areas. Education and training have failed to stem worsening inequality, even in East Asian countries with a good human development record. The urban land rights policies face administrative bottlenecks and political opposition, and their implications for inequality are poorly understood.

Recent trends point toward an inexorable increase in inequality as globalism widens the income gap between the skilled and the unskilled. Localization threatens to erode the already limited effectiveness of national programs for redistributing income. Thus far, growth—at least in the United States and East Asia—has not been constrained by divergences in income. But unless careful analysis is used to identify more clearly the processes that cause inequality and to serve as a basis for inclusive policies, growing inequality will compromise the longer-term performance of developing countries.

*Urban Governance.* The linkage between urban development and welfare is tightened by localization, as well as by the concentration of people in urban areas. There is a role here for the central government, but the larger responsibility will rest on the quality of urban governance.

The central government can provide the infrastructure to support urbanization while adopting spatially neutral policies that give equal opportunity to all regions, rather than encouraging a focus on a few metropolitan areas. Central governments can also provide a regulatory framework and institute fiscal transfers to supplement resources mobilized by municipalities themselves. But the center is rarely in a position to induce cities to enhance their economic performance or to improve

their livability. Cities must pull themselves up by their own bootstraps, and here governance is critical.

The transfer of people from rural areas to cities in the past 50 years has improved life chances, lessened morbidity, and raised life expectancy. The squalor, violence, congestion, and continued high incidence of infectious diseases in urban areas, however, indicate that the majority of people in developing countries do not derive anywhere near the full benefits of the structural changes sweeping these countries.<sup>32</sup> Localization and greater political participation may have drawbacks but may also yield advantages if cities are positioned to seize them. Greater autonomy will compel cities to diversify their financing instead of depending solely on the state or on provincial sources. But cities will also be able to pursue a wider range of initiatives and compete aggressively for business. Success will depend on their capacity to govern, to manage efficiently, and to mobilize adequate resources.

The problem for most cities is how to capitalize on greater political freedom to build durable partnerships between the public sector and private entities such as the business sector, NGOs, and the ever more numerous slum dwellers. Such partnerships harness a broad spectrum of urban stakeholders to provide an avenue for gaining commitment to objectives, tapping a wide range of innovative development possibilities, and pursuing a multifaceted but coordinated effort.

Viable partnerships rest on trust and a clear sense of rules, as well as obligations, for all of the participants. In an urban context, achieving such partnerships depends, according to Putnam (1993), on the efficacy of the horizontal relationships that are subsumed under social capital. It also is a function of the perceived efficiency and fairness of the institutions governing political activity. If there is little public sector accountability, if the poor have no voice, if elections do not offer meaningful choice, if public and private entities are unable to work together to achieve common goals, and if legal or administrative remedies are available only to a select few, participatory governance is unlikely.

This failure of governance is the rule in the urban centers mushrooming throughout the developing world. Twenty years ago, when most people lived in rural areas and there was hope that administrative reforms, combined with technological change, would yield answers, the situation in the cities was only serious. Now, amid the debris of failed attempts to create dynamic and livable cities, the world confronts an incipient crisis. Its acute nature is apparent from the near absence of success stories. The tiny band of cities that have attained cult status among social scientists—Curitiba, Brazil; Hong Kong, China; Singapore—has not grown for a decade. None of the existing and future megacities in Asia or Latin America qualifies as a model, and few provide clues about how to improve governance and implement good policies. There is no dearth of theory and empirical analysis, but we do not have reci-

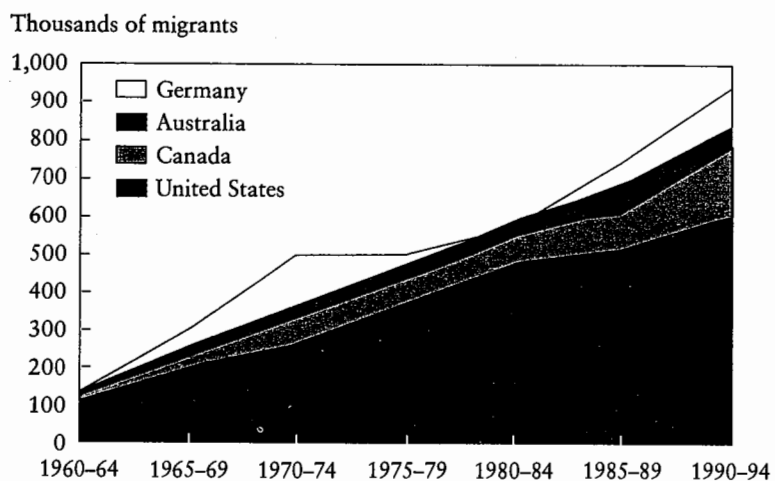
pes that can make cities work, ensure effective partnerships among diverse public and private entities in the absence of an organizational structure specifying rules of interaction, or quell the increasing squalor and violence bred by paucity of jobs, lack of voice, and fading hope.

### *Management of Human and Natural Resources*

Two demographic issues will take on a new urgency over the coming decades: cross-border migration and the global adequacy of savings in a world divided between countries with large cohorts of older people who are dissaving and those with vast cohorts of young people who will find higher-paying jobs in the formal sector only if there are high levels of investment. Priority issues in management of natural resources will be the global commons and food and water security.

**Cross-Border Migration.** People—along with goods, services, and investment—are crossing borders in record numbers. Each year, between 2 million and 3 million people emigrate. In 1998 some 130 million people lived in countries other than those in which they were born—a number that has been rising at about 1.9 percent annually (see Figure 8). In absolute terms, the number of migrants is modest—2.3 percent of world population—but they are concentrated in just a few regions: North America, Western Europe, Oceania, and the Middle East. In North America and Western Europe, the growth of the migrant population

Figure 8. Immigration into the Largest Host Countries, 1960–94



Source: Zlotnik (1998).

during 1965–90 was 2.5 percent a year, a share that far outstripped overall population growth. One in every 13 people living in these four regions is foreign born (Zlotnik 1998). Although the cost-benefit calculus of migration is largely positive for receiving countries and for many of the originating countries, migration has caused ethnic and labor market tensions in urban areas to worsen. The belief, strongly articulated by politically vocal groups, that immigrants displace local workers in low-skilled jobs, make large claims on social services, and are responsible for increasing rates of crime is creating a climate of opinion that supports the raising of barriers to immigration (Tonry 1997). Several industrial countries, including the United States, France, and Germany, have been tightening immigration controls, recapitulating similar moves in the early part of the 20th century. It is unclear whether this tendency will persist in the face of declining populations, but sensitivities toward immigration are increasingly apparent. Even as industrial countries move to limit the flow of migrants, the potential for migration from some developing regions is on the rise.

Shortages of agricultural land and of urban employment will be two important concerns for the poorest countries, with spillover effects for other countries. In Africa, South Asia, and parts of the Middle East, intense competition for jobs could sharpen incentives to emigrate. Conflict and natural disasters have already led to a dramatic increase in refugees, from 2.5 million in 1975 to 25 million in the late 1990s (Kane 1995; Korn 1999).<sup>33</sup> These cross-border spillovers, when they involve large populations, can be a source of conflict, misery, and disease. They can also be difficult to reverse (*Wall Street Journal*, April 22, 1999). The widespread availability of small arms compounds the severity of conflict, while life in refugee camps magnifies the possibility of disease outbreaks.<sup>34</sup>

There is very little possibility that countries, especially developing countries, will be able to seal off their borders, nor does it appear likely that the circulation of weaponry will diminish. Hence, population movements, sometimes accompanied by localized conflagrations (such as the one that erupted in the Great Lakes region of Africa during 1998–99), could become a recurring nightmare for the poorest countries—and could abruptly reverse years of slow progress.

Darkening demographic prospects and the likelihood that cross-border flows of people could impose severe strains on recipient countries have not elicited fresh ideas or institutional proposals. The only comfort that economics can offer is that greater trade and financial integration, along with the possibility of some increase in emigration to member countries of the Organisation for Economic Co-operation and Development (OECD), could enable the low-income countries to cope with population pressures during the demographic transition. By accelerating growth and increasing employment opportunities in low-income

countries, foreign investment and trade could reduce incentives to emigrate (Borjas 1998). The shrinking and aging of the populations of Europe and Japan might also boost demand for migrant workers, as happened in Western Europe between the mid-1950s and the mid-1970s. This would call for a framework of immigration policies and institutions akin to those needed for the movement of capital (Sassen 1997). It would also presage the spread of multiethnic communities in industrial countries, which could involve major social adjustments.

At this stage, there is no evidence of any readiness to put in place international institutions to manage cross-border flows of people. Little thought has been invested in this issue, nor has there been any effort to mobilize international opinion to support major new global governance initiatives for managing migration. And substantial research on multiethnic communities has yet to establish the social conditions and political mechanisms that would ensure stability with economic dynamism.

*Aging and Capital Supplies.* The aging of populations in developed countries and in some industrializing East Asian countries could significantly constrain the international supply of capital 20 or 30 years from now. Three factors will be critical. One is the effect of aging populations and rising dependency ratios on household saving behavior in industrial and developing countries. A second is the trend in the retirement age. A third is the extent and funding of social security systems.

The bleakest scenario projects a substantial drop in household savings in industrial and East Asian economies as the number of people over age 65 increases. It points to a rising tendency for people to retire in their 50s, as is already common in Europe. It also indicates that unreformed, pay-as-you-go social security schemes will be bankrupted or at least will come under great pressure.

The median age of the population in northeast Asia will rise from 28 to 36 between 1995 and 2015—a transformation that took twice as long in industrial countries, from 1955 to 1995 (Eberstadt 1998). Just 12.5 percent of the U.S. population and 11.8 percent of the Japanese population was over 65 in 1990; these proportions will rise to 18.7 and 26.7 percent by 2025. Between 1990 and 2025, rapid aging will raise the share of the 65-plus cohort from 6 to 13.3 percent in China and from 5 to 15 percent in the Republic of Korea.

With countries beginning to gray, labor force participation rates for males in the 60–64 cohort dropped precipitously during 1960–95, from 80 to 55 percent in the United States, from 80 to 20 percent in Italy, and from 70 to 15 percent in France. One might expect as a result a severe global capital shortage that raises interest rates and depresses growth, trade, and commodity prices.

A second, and much brighter, scenario, suggests that a savings crunch can be avoided. Household surveys show that aging may not lead to the steep decline in saving revealed by cross-country studies. Rising rates of female participation in the work force will partially offset the effect of declining male rates. And policies and institutions might narrow (if not close) the savings gap in some industrial countries and prevent shortages in industrializing economies.

Research on Japan and East Asia supports the view that saving could decline as populations age but that diminishing rates of investment would more than offset lower saving (Horioka 1990; Higgins and Williamson 1997; Kosai, Saito, and Yoshiro 1998). As dependency ratios in South Asia fall during the next two decades, saving could climb, and countries in the region could gradually become capital exporters like the East Asian and Southeast Asian economies. In fact, some recent research on the United Kingdom and the United States suggests that saving rates may increase as baby boomers approach retirement in the next two decades (Attanasio and Banks 1998).

Even if the more favorable scenario comes to pass, industrial and developing countries with aging populations need to make haste in two areas. Industrial countries whose pay-as-you-earn social security schemes will run out of money over the next two to three decades should increase social security funding, shave benefits, and contain—if not reverse—the fall in the retirement age. There will be a great deal of resistance to raising payments or cutting benefits, but this pain must be faced. The total bill for pensions and medical care for the aged over the next 30 years is estimated at US\$64 trillion (Peterson 1999).

Sociologists such as Anthony Giddens believe that the decline in the retirement age will be reversed (Giddens 1998a). If this happens—and there are plenty of contrarian views that stress the attractiveness of retirement and the declining price of recreation—a savings shortfall in industrial countries might pose less of a problem (Costa 1998).

For industrial countries, the issue here is not so much governance as it is how to reshape institutions to provide a minimum fiscally supportable public safety net while bolstering savings so as to enlarge private mechanisms to support people in retirement (Deaton 1998). For developing countries, it is how to build a combination of publicly and privately financed safety nets in the first place and how to keep older people on the job.

*Managing the Global Commons.* Warnings of impending global food shortages and environmental catastrophes have frequently been voiced. So far, these have not materialized, and perhaps technological ingenuity will enable humankind to sustain development indefinitely. But the magnitude of demographic change that will be telescoped into the next



two decades and the certainty that the world will become warmer, lose biodiversity, and push against the limits of the resource envelope are worrisome. Scores of environmental treaties and protocols have been signed over the past few decades, but only one, the Montreal Protocol to protect the ozone layer, can be counted as a true success. There were several reasons for the success of the protocol: the problem and the urgency of remedying it were indisputable; only a handful of countries (with the United States clearly in the lead) produced ozone-destroying chlorofluorocarbons (CFCs) and needed to come to an agreement on phasing them out; substitutes for CFCs were available and new ones were on the horizon; and the industrial nations were willing to make a multilateral fund available to developing countries to help them limit their CFC use.

It is more difficult to devise international institutions that will address other environmental concerns, which do not meet these conditions. Regarding global climate change, for example, the scientific consensus has yet to jell; there is a large variance in estimates of costs and benefits; only the countries for which the dangers from warming loom large—such as Bangladesh, with its densely populated, low-lying deltaic region—are willing to participate; and mechanisms for sharing the costs between countries in an equitable and politically acceptable manner are still in an embryonic stage.

Managing the global commons is a vital and live issue for the future, and one that must be addressed at many levels. For example, countries must deal with the political economy of cost sharing. Enforceable global rules and markets for trading carbon emissions will need to be defined. Policies will need to be evolved to develop new technologies and the means of ensuring their widespread adoption. And attention must be given to bargaining strategies that will enable countries with disparate concerns to reach workable compromises.

*Food and Water Security.* The issue of food security is related not only to environmental concerns but also to the growth of populations. Changes in the global climate and higher levels of carbon dioxide could adversely influence crop production and yields, especially in the tropics. This would exacerbate the longer-term problem of soil erosion from intensive cropping, poor husbandry practices, and deforestation. Furthermore, the increasing claims on limited supplies of fresh water and the deteriorating quality of water bodies could lead to conflicts between regions and between riparian countries.<sup>35</sup>

Scientific advances in crop genetics are sure to yield varieties that can withstand greater heat, water stress, and salt content without compromising high yields. Scientists, however, have become notably circumspect in their claims about future gains. For poorer countries in the tropics, the achievement of sustainable rates of agricultural output

growth, an old issue, is acquiring renewed importance (*Science*, March 5, 1999).

Even if yields can be steadily improved, crops and livestock will still require water. As growth continues, city industries compete against the demands of agriculture, and as pollution degrades water quality, the distribution of available water supplies may have a decisive bearing on regional development prospects.<sup>36</sup> The rules of sharing will also determine whether neighbors remain on peaceful terms, especially where countries rely heavily on external supplies (see Table 4). As Hinrichsen, Robey, and Upadhyay (1998) note, a world short of water could be inherently unstable.

The literature on dividing water resources is rich and insightful. A few parts of the world, including the western United States, have effective regionwide institutions. There are also microlevel institutions—in Chile, China, western India, and other places—that efficiently allocate water, especially groundwater, using market-based or informal mechanisms. But solutions to emerging macrolevel problems are not in sight. Even the adaptation of successful microinstitutions for use in different regions has proved difficult.

It is appropriate that we close this review of issues with food and water security, an issue that was present at the dawn of development

Table 4. Countries Heavily Dependent on Imported Surface Water

Country	Percentage of total flow originating outside own borders	Country	Percentage of total flow originating outside own borders
Egypt, Arab Republic of	97	Iraq	66
Hungary	95	Albania	53
Mauritania	95	Uruguay	52
Botswana	94	Germany	51
Bulgaria	91	Portugal	48
Netherlands	89	Bangladesh	42
Gambia, The	86	Thailand	39
Cambodia	82	Austria	38
Romania	82	Jordan	36
Luxembourg	80	Pakistan	36
Syrian Arab Republic	79	Venezuela, Republica Bolivariana de	35
Congo, Republic of	77	Senegal	34
Sudan	77	Belgium	33
Paraguay	70	Israel <sup>a</sup>	21
Niger	68		

a. A significant proportion of Israel's water supply comes from disputed land. Source: Wallensteen and Swain (1997).

studies and the importance of which remains undiminished after nearly five decades. The health of agriculture will continue to be a key determinant of welfare, growth, and political stability in the 21st century. In an era of worsening environmental conditions and tightening resource constraints, food security will be a major objective, and one that countries will have to struggle harder to secure. This struggle may extend to water rights. If it does, the chances of conflict in certain parts of the world are significant. Such conflicts could be enormously destructive, given the increasing numbers of countries in possession of sophisticated chemical, biological, and thermonuclear weapons. How to ensure food security and access to water will be an issue that commands the closest attention.

### A Search for Answers

The nature and complexity of the development issues that now confront us show how far thinking and practice have evolved. The recent record of moderate growth, increasing stability, and improving standards of human development all suggest that we have made substantial progress in finding workable solutions to tough development problems. But other statistics warn us that the race to develop is far from over. Although a decreasing percentage of people is poor, the number of poor people continues to grow. Few industrializing countries are narrowing the income gap that separates them from industrial economies. Convergence of both incomes and levels of human development could be accelerated by responding to the issues sketched above.

This paper seeks to highlight issues, not to propose solutions. But in the end, fresh thinking on governance, institutions, regulatory policies, and measures for managing resources will lead to the highest payoff. In a world in which global and local concerns have begun to dominate, population growth is beginning to test environmental sustainability, political expectations have been sharpened by literacy, information is becoming more readily available, and rates of urbanization are high and increasing, economic development will depend on our ability to resolve a broad range of complex issues.

These issues are multidisciplinary. They lie at the intersection of economic, political, social, and environmental concerns. Economists must make common cause with other social scientists if the search for answers is to yield fruit.

### Notes

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1. An assessment of the policy consensus achieved through the 1980s is provided in World Bank (1991).

2. Pritchett (1997) showed that increased educational attainment did not have a positive effect on output growth. Barro (1997) showed that the positive relationship between the investment ratio and growth found in cross-country regressions reflects a reverse link between growth prospects and investment.

3. This is supported by research on industrial, developing, and East Asian countries surveyed by Fagerberg (1994); Oulton (1997); Crafts (1998).

4. A positive relationship between property rights and growth has been reported by Barro (1997) and Keefer and Knack (1997). Olson (1996) maintained that developing countries have not exploited their full growth potential because of weak institutions for protecting contracts and rights.

5. Different kinds of legal systems, however, confer differing degrees of protection. La Porta and others (1998) show that the degree of investor protection and legal enforcement is greater in common law countries than in countries with a system based on civil law. Enforcement also tends to improve as income rises.

6. See Ahmad and Yang (1991); Newman, Jorgensen and Pradhan (1991); Pissarides (1991); Squire (1991). Dasgupta (1998) draws attention to the association between poverty and undernourishment, high fertility, and environmental degradation.

7. Brada (1996) discusses the constraints on rapid privatization in the transition economies, the options available, and the viability of partial schemes in which the government retains a role. White and Bhatia (1998) examine the checkered but broadly positive record of privatization in Africa.

8. Both the "market friendly" and the industrial policy models demand high bureaucratic capability (see Evans 1998).

9. One striking measure of globalization is the doubling of global output that is exported, from one tenth in 1950 to one fifth in 1990. This trend is mirrored by the increase in GATT/WTO membership, from 23 countries when the first treaty was signed in 1947 to 134 in 1999. Another 30 countries have applied to join (see Anderson 1998).

10. Flexible supply-chain management of products for large retailers and other buyers by regionally diversified export trading companies (such as Hong Kong's Li and Fung) is also changing the nature of design, sourcing, and assembly of products (see Magretta 1998).

11. The cost of a three-minute transatlantic telephone call dropped from US\$31.58 in 1970 to less than US\$1 in 1998. Meanwhile computer use is exploding, more and more people have Internet access, and access speeds have risen from 14.4 kilobytes per second to 10 megabytes per second.

12. See Feldstein (1999). These and other technological developments are the possible harbingers of a "new economy" (see Greenspan 1998).

13. See OECD (1998). So far, however, much of the foreign direct investment in developing countries goes to fewer than a score of East Asian and Latin American economies (Fry 1995: 257).

14. Foreign direct investment (FDI) consists of investment in physical capital and other production-related assets. It is distinguished, conceptually at least, from foreign portfolio investment (FPI), which refers to purchases of foreign liquid financial assets. In reality, the distinction is somewhat fuzzy, as financial transactions may involve elements of both. However, the higher liquidity of FPI underlies the presumption that it is more footloose than FDI.

15. Giddens (1998b: 31) notes that globalization "pushes down—it creates new demands and also new possibilities for regenerating local identities."

16. Cooke and Morgan (1998); Porter (1998); Scott (1998). Silicon Valley and the Emilia Romagna region of northeastern Italy are the most famous examples, but they are being joined by many others in India and China.

17. For example, current forecasts indicate that in 2100 carbon dioxide concentrations will reach 600 parts per million (ppm)—two to three times the level in 1750. Average temperatures could rise by some 2° Celsius from now. This projection continues to be disputed, however, because the variability of climate over the eons, driven by little-understood natural mechanisms, is well documented. Still in the realm of scientific conjecture are the severity of weather fluctuations in a warming world, the global distribution of the effects of warming on agriculture and living conditions, and the extent of adaptation to warming. Although higher carbon dioxide concentration might enhance plant growth and will certainly increase the efficiency of water use, changes in tissue chemistry will render plants less palatable, and heat and water stress on vegetation will offset some of the gains from increased carbon dioxide (see Goudie 1997; *Science*, July 25, 1997: 496).

18. This is now evident in most regions and is mirrored by the rising rates of contraceptive use (Gelbard, Haub, and Kent 1999).

19. Population projections using a probabilistic approach indicate that the populations of Sub-Saharan Africa, North Africa, and the Middle East will triple by 2050 and quadruple by 2100, according to Lutz, Sanderson, and Scherbou (1997). In some Sub-Saharan African countries the AIDS epidemic will slow population growth by shortening life expectancy by nearly 17 years between 2010 and 2015, but even countries such as Botswana, where a quarter of the adult population is HIV positive, can expect their populations to double by 2050 (see United Nations 1998b; *AIDS Analysis Africa* 1998).

20. It is sobering to note that the world's supply of fresh water is no greater now than it was 2,000 years ago, when the population was 3 percent of today's size. In this century alone, water withdrawals have increased sixfold (Hinrichsen, Robey, and Upadhyay 1998).

21. See World Bank (1998). A condition of water stress is reached when annual per capita water availability is between 1,000 and 1,700 cubic meters. When the annual supply drops below 1,000 cubic meters, a country faces water scarcity. Below 500 cubic meters, there is absolute water scarcity (see Wallenstein and Swain 1997). On the increasing severity of water constraints in the Middle East, see Rogers and Lyndon (1994).

22. A recent report indicates that a 3 percent warming of the climate over the next 100 years would lead to a 90 million ton shortfall in food supplies by

2050, increasing the number of people at risk of hunger to 30 million. About 18 percent of Africa's population could be affected if this projection holds (*Financial Times*, November 3, 1998).

23. Haddad, Ruel, and Garrett (1999a, 1999b) refer to an estimated number of 300 million urban poor in the late 1980s.

24. Elster (1989) strikes a similar note when he discusses how social norms might be weakened in modern society because of mobility, the ephemeral nature of interactions, and the pace of change. Although the public provision of a safety net for the poor to replace informal kin- or patron-based insurance schemes has been widely discussed, creating viable schemes is and will remain a considerable challenge. Experience with targeted transfers has revealed high political and administrative costs and substantial leakages even when there is self-targeting of the poor using inferior goods such as coarse grains. Local community efforts, which might become more important for some countries in the future, will also have to overcome such hurdles as the inadequacy of administrative and revenue-raising capacity, capture of local safety net programs by local elites, and the need for state- or national-level coordination of programs subject to significant externalities (see Bardhan 1996).

25. See Scott (1976). Popkin (1979) rightly maintained that the moral economy based on patron-client relations can often be constraining and that the commercialization of the rural economy improves the overall prospects of the peasantry, including the capacity to survive shocks.

26. The Basle Banking accord was established in 1988. In the aftermath of the East Asian financial crisis of the late 1990s, the Basle committee is proposing a widening of the rules to include not only revamped risk-based capital adequacy rules but also enhanced disclosure and supervisory practices that give greater discretion to regulatory agencies.

27. Morrison and Tsipis (1998) estimate that during 1914–90 wars resulted in about 110 million excess deaths. They recommend a global community security regime that would allow countries to drastically reduce arms spending, provide a vehicle for effective armed response to crises, and free resources for economic progress, thereby reducing sources of tension.

28. Nellis (1999) suggests that mass privatization in some of the transition economies has generally failed to induce enterprise restructuring or improve performance because institutions were not in place and public or private organizations for monitoring and regulating the newly privatized entities were weak.

29. Collier (1999) estimates that during civil wars GDP per capita declines at an annual rate of 2.2 percent relative to the counterfactual. If a war lasts only one year, the loss of growth in the next five years of peace is 2.1 percent per year.

30. Studying Latin American countries, Bourguignon (1998) estimates that over 7 percent of their GDP is lost because of violence. The cost of crime and violence to South Africa is believed to equal 6 percent of GDP (*Business Times*, February 14, 1999).

31. See Kanbur (1998). Campos and Root (1996) view egalitarianism as one of the keys to East Asia's success.

32. The concentration of people in urban areas improves the chances of reducing the incidence of water- and insect-borne diseases, but it can worsen the spread of droplet-borne infections such as tuberculosis and influenza and of sexually transmitted diseases such as AIDS (see Ridley 1997). The spread of AIDS is one of the greatest threats to development in Africa (*Lancet*, February 20, 1999).

33. The Gulf War displaced 5.5 million people, and the conflict in Afghanistan is responsible for the 2 million refugees living in Iranian border camps and for an additional 1 million in Pakistan (*Economist*, "Exporting Misery," April 17, 1999).

34. Klare (1999) estimates that the total number of small arms in circulation worldwide ranges from 500 million to 1 billion, of which 200 million–250 million are privately owned by individuals in the United States. Close to 70 million AK-47 automatic rifles and 8 million M-16 automatic rifles have been produced since 1947.

35. The main threats are from chemical effluents, untreated sewage, and agricultural runoff (see Pielou 1998).

36. Urbanization could result in a large increase in per capita use of water for domestic purposes, which is currently only 8 percent of total consumption. In the United States, average annual household use rose from 10 cubic meters in 1900 to 200 cubic meters in the 1990s. About 36.5 cubic meters a year are needed to maintain good health (see Feder and LeMoigne 1994; Hinrichsen, Robey, and Upadhyay 1998).

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