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FOREWORD

By Geoffrey D. Dabelko, Editor



environmental change & security project

Ealways been central to the Environmental Change and Security Project. Yet the seminal events that book-end the past year—the attacks of September 11 and this year's World Summit on Sustainable Development in Johannesburg, South Africa—have sharpened the need to bring these linkages to the attention of policymakers. Moving from a military response to other approaches regarding today's issues of moment should include a multi-pronged strategy—one that looks beyond the immediate and addresses the conditions that underlie human as well as national insecurity.

For some, such as World Bank President James Wolfensohn, poverty connects the disparate factors of this broad agenda. In a March 2002 address at the Woodrow Wilson Center, Wolfensohn declared: "If we want to build long-term peace, if we want stability for our economies, if we want growth opportunities in the years ahead, if we want to build that better and safer world, fighting poverty must be part of national and international security." (See the Official Statements section of this *Report* for excerpts from Wolfensohn's address.) To set such priorities is not to claim direct causation between grievance and terrorism. Nor will development solve all conflicts. Yet the Johannesburg Summit can become part of an effective response to September 11 by reexamining and reenergizing efforts against the deprivation that enormous numbers still endure.

This issue of ECSP Report offers a constructive agenda for Johannesburg as expressed by a wide variety of experts, who detail their hopes and key issues for the Summit in "What is to be Done at Johannesburg?" Next, George Martine and Jose Miguel Guzman examine critical population dynamics in light of the disastrous impact of Hurricane Mitch on Central America. As natural disasters become more frequent and their impacts more severe (especially in the developing world), Martine and Guzman offer concrete and proactive measures towards more sustainable development. Richard Bilsborrow then uncovers the dramatic environmental effects of rural-to-rural migration. While many researchers and advocates continue to focus on population movements into urban centers, Bilsborrow demonstrates that rural-to-rural population flows deserve considerable attention from demographic, environmental, and policy communities alike.

In "The Future of Environmental Security," Simon Dalby and Richard Matthew follow by providing the latest entries in the *Report*'s ongoing forum about broadening security parameters beyond the traditional. Dalby questions the utility of the current environmental security paradigm; he argues that its continued relevance demands that researchers meaningfully incorporate issues of equity and Northern consumption as well as Southern viewpoints. Matthew counters by enumerating the successes gained by the environmental security work of the last dozen years. While he readily acknowledges the field's shortcomings and considerable gaps, Matthew decries popular distortions of environment and security research and maintains that its work remains vibrant and of more importance than ever to policymaking.

Fresh water has long been a focus of ECSP. This issue's Special Report features lessons from a comparison of arms control negotiations and water negotiations. Beth Chalecki and her distinguished co-authors report on the limits and the opportunities revealed through dialogue between these very different communities. We are also pleased to announce that ECSP's work on water issues will continue in earnest with generous support from the Carnegie Corporation of New York. This fall marks the beginning of a new ECSP initiative—"Navigating Peace: Forging New Water Partnerships"—which will explore three focus areas: balancing the realities of water as both a social and economic good; water conflict and cooperation; and water-conflict resolution in the United States and China. We look forward to sharing insights from this effort in future issues of the ECSP Report.

For the first time since ECSP began publishing the *Report* in 1995, the journal's Features section has been refereed by external reviewers in a double-blind process. We thank our reviewers and hope that this rigorous process will both improve the quality of the research published here and make it easier for tenure-track scholars to share their insights on these pages. As always, we call on the diverse communities working on environment, population, and security linkages to share their insights and experiences through the information clearinghouse mechanism that is *ECSP Report*.

COMMENTARIES

WHAT IS TO BE DONE AT JOHANNESBURG?

Marking the ten-year anniversary of the historic 1992 Earth Summit in Rio, the World Summit on Sustainable Development in Johannesburg, South Africa has been viewed throughout its preparations with both great hope and pessimism. Some analysts, activists, and policymakers think the Summit is the last best chance for the world to balance the three pillars (economic, social, and environmental) of sustainable development. Others are looking past Johannesburg altogether, skeptical that it can accomplish much. As of this writing in June 2002, even a clear Summit agenda remains elusive for governments and civil society alike.

ECSP asked a wide variety of experts each to highlight one or two specific issues or outcomes they thought essential for Johannesburg to address or achieve. Water, population-environment connections, development financing, and international environmental governance emerged in the contribution as key issues. We offer these 19 commentaries with full knowledge that Johannesburg and the questions and mechanisms it takes up represent only a stop along a path to sustainability—not a final destination.

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OVERVIEWS

THE NEXUS OF SECURITY, GLOBALIZATION, AND SUSTAINABLE DEVELOPMENT

By Sascha Müller-Kraenner

Sascha Müller-Kraenner is director of the Heinrich Böll Foundation's office in Washington, DC. He is also one of the founders of and a senior adviser to Ecologic, a non-profit center for international and European environmental policy in Berlin. From 1991 –1998, Mr. Müller-Kraenner was Director for International Affairs of the Deutscher Naturschutzring, the umbrella organization of Germany's environmental NGOs.

September 11 has made it clear that there will no longer be two global zones of security. The democratic, rich, and safe countries of the North cannot insulate themselves from lawlessness, poverty, and insecure countries in other world regions. The current effort of the United States and its allies to fight terrorism—with a mix of military, economic, diplomatic, and humanitarian instruments—should lead to a new global security architecture. This process should also gradually replace regional arrangements that have separated the world into safe and unsafe

places. The complexity of the anti-terrorism strategy and the multilateral character of the approach both imply that any new security framework will rely not on military and geopolitical components alone, but must include a broad range of reforms in governance and international cooperation.

This raises the question of whether the new global security architecture will *replace* current globalization tendencies or *be integrated* with them. The economic globalization of the last decade has been criticized for hurting the environment and the poor. Institutions

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with a prominent role in globalization—such as the World Bank, the International Monetary Fund, and the World Trade Organization—have been accused of lacking democratic accountability. It is an open question whether the new emphasis on regional stability and security will either enforce current globalization trends or lead instead to a stronger focus on human development, social cohesion, and good governance in developing countries.

The Johannesburg Summit will take place nearly one year after the terrorist attacks of September 11. The Summit provides a unique opportunity to discuss globalization from a sustainable-development perspective. Whether the world accepts this perspective depends on whether we can convincingly argue that sustainable development contributes to positive economic development in all regions and to the political stability of the international system.

To outline the nexus between a new international security architecture, globalization, and sustainable development is partly an intellectual exercise. Developed-country policymakers have a vague awareness that unsustainable development patterns are intensified by globalization patterns and thereby increasingly contribute to regional instabilities. The environment and development movements must, however, develop concrete proposals and instruments for redefining this double connection.

Will the Environment Drop Off the Agenda?

For quite a while, environmental policy has not been a top concern for global policymakers. The Kyoto Protocol proved to be an exception. The final success of the Kyoto negotiations at the July 2001 Bonn climate summit also demonstrated that, in order to complete complex environmental negotiations, world leaders must pay adequate attention to the negotiations and participants must understand them within a broader political context.

When heads of government decide whether to participate in Johannesburg and whether to invest the necessary political capital to make it a success, they will make this decision based on the following questions: Is there a clear agenda? Will there be achievable results? And are the results relevant to my core constituencies?

The preparations for Johannesburg in the Commission on Sustainable Development had a slow start. But even before September 11, it was obvious that the Summit would have to address the nexus between globalization and sustainable development

to achieve political relevance. Now, in a new context, time has become an even more critical factor. Johannesburg has to advertise itself as *the* forum where world governments and civil society will discuss globalization and its unprecedented scale. The Summit must be the place where sustainable development starts to make a significant contribution to a new globalization model—one that increases security for both the North and the South.

The Johannesburg Summit could achieve the following:

- Address poverty. While not the immediate cause of terrorist acts, observers agree that widespread poverty in a number of world regions has provided a fertile breeding ground for radical political ideologies and movements. Poverty has also contributed to the depletion of resources and has prevented the implementation of environmental legislation in developing countries. September 11 has brought home the message that poverty matters, not only for humanitarian but also for security reasons. Johannesburg should also address the poverty-related issue of hunger. The 1996 World Food Summit set the goal of reducing global hunger by 50 percent by the year 2015. Sustainable landuse and access to clean energy and water as well as equitable distribution of those resources can make a significant contribution towards this goal.
- Improve governance structures. Dysfunctional states, democratic deficits, and an underdeveloped civil society in a number of countries have helped prevent achievement of Rio's sustainable-development objectives. Fragmentary and fragile governance structures also result in a lack of security, especially for those parts of the population that cannot afford private security services. Environmental governance on the national and international level is only part of a stable system of overall governance and cannot be achieved in isolation. However, environmental governance can make a valuable contribution to the democratic development of communities and the international realm.
- Assert the value of international law. The current U.S. administration's rejection of a number of international treaties reflects a political analysis that challenges the legitimacy and effectiveness of international law in principle. The administration's rejection of the Kyoto Protocol was just the most spectacular and controversial illustration that the

United States is now acting unilaterally—an analysis that is privately shared by governments and others in a number of countries.

• The experience of vulnerability after September 11 may lead to a reassessment among the U.S. policy elite of international law's legitimacy and place in U.S. foreign policy. The willingness of the United States to coordinate the fight against terrorism with

document approved at the conference addresses a number of innovative financing mechanisms and concepts for development, including: (a) an international transaction tax (commonly referred to as "Tobin tax"), as well as (b) the concept of Global Public Goods (Kaul et al., 1999). Global Public Goods (GPGs) are defined as goods that can be used beyond national boundaries: they include not only peace and

The Summit must be the place where sustainable development starts to make a significant contribution to a new globalization model—one that increases security for both the North and the South.

-Sascha Müller Kraenner

an international coalition might bode well for this reassessment. The Kyoto Protocol, with its high symbolic value, offers a chance to prove this point. U.S. ratification of the agreement before Johannesburg, when the Protocol is scheduled to enter into force, is doubtful. However, the parties to the Protocol should keep the door open for the United States to join later.

- Provide additional financial means to reduce poverty through sustainable development projects and to build functioning governance structures in Southern countries. The March 2002 UN Conference on Financing for Development in Monterrey ended the downturn in Official Development Assistance (ODA) flows: both the EU and the United States promised to provide additional ODA funds over the next several years (Martens, 2000). Now, national governments in Europe and the U.S. Congress have to make sure that these promises materialize in their national budgets.
- The additional funds that were promised at Monterrey do not come close to the 0.7 percent-of-GDP target that had been restated by last year's UN Millennium Summit. They also fail to achieve the additional 50 billion USD target needed to achieve the Summit's Millennium Development Goals. But the political signal of Monterrey bodes well for the upcoming replenishment process of the Global Environment Facility—the financial instrument of the Rio Conventions—as well as for the future funding of several UN institutions that are critical for global environment and development governance.

In addition, the so-called Monterrey Consensus

security, but also an intact environment, health, financial stability, knowledge, and information. A more precise definition of GPGs has not yet been elaborated (because, among other limitations, the difficulty of deciding who gets to make the definition). But it is generally acknowledged that global markets fail to provide available GPGs in a fair and equal manner in times of ecological, social, and economic crisis. Kaul et al. call for stronger international cooperation between countries and regions as a counterbalance to the way global markets distribute GPGs.

How Will the Debate on Globalization Change?

Movements critical of globalization picked up momentum after a series of campaigns around the WTO ministerial conference in Seattle, the EU Summit in Göteburg, Sweden, and the G7 Summit in Genoa, Italy. These movements have always criticized current U.S. economic policy as contributing significantly to some of globalization's negative aspects. The United States has also been accused of throwing its weight around in some international institutions and blocking progress in others.

But movements critical of globalization have not only criticized current U.S. policies but also willingly and unwillingly nourished an anti-American ideology. The fashionable anti-Americanism of certain parts of the anti-globalization left is mirrored by parallel developments on the extreme right. Both accuse the United States of worshipping a materialistic life that stands in stark contrast to the post-materialistic values of the globalization critics and to old traditional cultures both in Europe and in developing countries.

After September 11, this pattern of argument presents itself in a different context. Naomi Klein,

author of "No Logo," an acclaimed overview of the anti-globalization movement, writes in *The Nation* (Klein, 2001) that "tactics that rely on attacking—even peacefully—powerful symbols of capitalism find themselves in an utterly transformed semiotic landscape." Other activists might put it less eloquently, but the cancellation of planned protests even before the annual World Bank/IMF meeting in October 2001 was called off has shown that the anti-globalization movement is deeply unnerved. At a moment when nearly everybody states their public solidarity with the American people, it is almost impossible to paint America as a symbol for everything that is unjust in the world economic order.

Both the largely U.S.-led and-sponsored international NGO movement and the UN system will suffer if anti-globalization movements continue to crystallize around an anti-American ideology. Rejecting the ideology of anti-Americanism is a precondition for globalization's critics to enter into a renewed democratic debate with the U.S. government on how the reduction of poverty and the erection of global governance structures can contribute both to global economic development and global security.

Will the United States Return to Multilateralism?

Many analysts have stated that, in the aftermath of September 11, the United States and others will rejoin the system of international cooperation. Such a rebirth of multilateralism could provide fertile ground for a "global deal" between environmental interests of the so-called "North" and development interests of the "South."

However, the current cooperation of the U.S. government with the UN Security Council and the ad hoc coalition (with approximately 35 countries) to combat terrorism will not automatically inspire a stronger U.S. engagement in other multilateral processes.

There has been a debate over whether September 11 will motivate the U.S. administration to rethink its recent unilateral policies and to return to the multilateral approach of the Clinton administration. In fact, after the terrorist attacks, the United States paid its UN dues, turned to the Security Council for a mandate, and asked its allies to invoke Article 5 of the NATO treaty. However, doubts remain as to whether the current U.S. effort to build an international coalition against terrorism is more like multilateralism "a la carte." Some say that the United States has and always will prefer the flexibility of issue-oriented bilateral arrangements to the relative inflexibility of multilateral treaties and institutions.

Certainly, average U.S. residents have rediscovered the rest of the world in the wake of the attacks. It remains to be seen whether this increased interest in other countries and in the complexities of international relations will translate either into (a) a greater willingness to help developing countries and to participate in international institutions, or (b) isolationism and a focus on increased military spending. Both internationalists in the United States and other countries have a window of opportunity to prove to the United States that international cooperation is both indispensable and capable of positively impacting its national interests.

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FROM RIO TO JOHANNESBURG: A EUROPEAN PERSPECTIVE

By Hans JH Verolme

Hans JH Verolme, a human geographer, is the environment attaché at the British Embassy in Washington, DC, covering global environmental policy developments. He is a Dutch national and practitioner in the field of environment and sustainable development in East Africa, South Asia, Europe, and the Americas. Mr. Verolme has previously published on biodiversity conservation and international forest policy issues as well as agricultural development and environmental change. This commentary is a personal contribution to the debate and should not be taken to represent UK government opinion.

y perspective is a European one, although one that is inevitably colored by experiences gained from living and working around the world (including, for the past five years, in the United States). But before offering that perspective, let me take a step back.

What Has Changed Since Rio?

Generally, there is little disagreement in identifying the trend that shaped the 1990s: "globalization." What that trend exactly comprises is more complicated; but many agree that globalization needs to be harnessed in the fight against poverty. Three specific and often overlooked intellectual developments are relevant for bridging Agenda 21 with the Johannesburg outcomes.

First, the concept of sustainable development has become far more integrative. Its three pillars—environmental, social, and economic—are no longer considered separate. Building on improved empirical understanding, economists are advancing the debate by emphasizing how the five types of capital (natural, social, financial, human, and physical) that shape development are interlinked.

Second, the role of business and other nongovernmental stakeholders is no longer viewed as separate from the role of government. The Johannesburg Summit process clearly reflects this development, with its emphasis on partnerships to deliver results and to inform policymaking. These partnerships represent a major step forward when compared to Rio's focus on getting an agreement among states.

Finally, as a practitioner, I am pleased with the revitalized debate on the linkages between poverty and environment. This debate, which now looks at sustainable development through a livelihood lens, no longer blames the poor (those with the least amount of control over their future) for the degradation of natural resources and the environment. And while local problems often require local solutions, a deeper understanding of the underlying

development process has led to smarter policies. The poor are no longer on trial, as was often the case at Rio.

Does this make our job at the Summit easier? Far from it. As a practical matter, for example, Johannesburg will have to build on (a) the fragile global consensus on development financing that was created at the Monterrey International Conference on Financing for Development, and (b) the outcomes of the 2001 WTO Ministerial in Doha. The Summit needs to project forward a powerful new vision, an expression of political will.

The Agenda

Top agenda items at the Summit should include:

- Contribute in a concrete way to the delivery of the Millennium Development Goals through coordinated implementation of existing commitments and (multilateral) agreements. Delivery of the Goals will require renewed political commitment and institutional change as well as increased levels of financing. The United Kingdom, for example, has committed to increase funding and to set specific International Development Targets. The UK Chancellor of the Exchequer, Gordon Brown, has entered the debate with a visionary paper on a Global New Deal (Brown, 2002).
- Improve governance at the domestic and international level as a necessary but insufficient precondition to sustainable development. Rio's Principle 10 addressed (a) the need to raise public awareness and to provide access to information, (b) the opportunity to participate in decision-making, and (c) the need for effective access to the legal system. In Europe this has resulted in the Århus Convention, which has initiated some real changes in the way governments operate—for example, providing the legal basis for extensive right-to-know rights for citizens in the area of the environment.

But we can do more.

• Greatly improve resource efficiency in the OECD as a way to enlarge the cake and eat it too—delivering on the Rio promise to address unsustainable consumption and production patterns. This task cuts across all sectors and includes a commitment to expand on (a) the Kyoto promise of real reductions in greenhouse gas emissions, (b) clean energy supply and reduced demand, and (c) the effort to address the root causes of biodiversity loss—in particular, from land-use change.

The Activist Agenda

The NGO community has called for more specific measures to spread the benefits of globalization and address current inequities. Thus, Johannesburg on fisheries and farm policy will send an important signal to the rest of the world as we prepare for Johannesburg.

After September 11, it would have seemed natural to turn inward and forget that strength is based on conviction. The coalition to fight terrorism should not dissolve without having addressed the root causes of global unrest—including persistent inequities. Thus, the Johannesburg agenda offers a timely, relevant response to current insecurity. If Johannesburg seeks to "win the peace," to borrow a phrase from UK Deputy Prime Minister John Prescott, we have to acknowledge the United States has a credibility deficit with some people. The debate in the European press on U.S. unilateralism reflects a serious, broad-based concern. The way forward is obvious. Action speaks louder than words, and an important U.S. strength is

One lesson we did learn from Rio: implement what you pledge before pledging further. —Hans JH Verolme

Summit action items should also include: (a) smarter investments, (b) the requirement of Export Credit Agency reform, and (c) a proactive government role in improving corporate responsibility. While a consensus on these issues is not close, partnerships of (for example) like-minded G8 members could advance this consensus sooner than naysayers think.

The Role of Europe and the United States

Without wanting to promote an exclusive transatlantic debate, I wish to recognize the key role Europe and the United States will play in delivering on this agenda. In a November 2001 speech, EU Commissioner Chris Patten convincingly argued that sustainable development is a key element of global security (Patten, 2001). [See this *Report's* "Official Statements" section for excerpts from this speech.] Thus, foreign policy must align national interests with shared global ones—an attitude expressed in multilateral agreements. The

disappointing record of U.S. Senate ratification of treaties cannot go unmentioned here; but the EU is equally guilty of navel-gazing. European solidarity has long focused exclusively on other EU members. We can hope that the recent release of a report on the external dimension of the EU's Sustainable Development Strategy (EU Commission, 2002) marks a turning point for Europe on these issues. EU actions

its capacity to bring practical experiences to bear. Political commitment gets measured through action.

UK Action

What practical steps is the UK taking? If the new agenda moves beyond governmental commitment to demand a transformation of the way we do business, we need to look carefully at those who show the way and translate some of those lessons into more broadly applicable programs. Prime Minister Tony Blair laid out precisely this challenge in a speech at a World Wildlife Fund-UK conference in London on March 6, 2001 (Blair, 2001). During that speech, he also became the first head of government to announce that he will attend the Summit. The following initiatives involve UK companies and NGOs who recognize the private sector's global impact:

Forests. The UK is preparing a sectoral sustainable-development strategy taking into account its global reach as a major importer of forest products. This strategy will complement the UK government commitment to green procurement and G8 efforts to stem the flow of timber from illegal sources. We have taken a first step by signing a bilateral agreement with Indonesia to stem the trade in illegal timber.

Financial services. The "London Principles for Sustainable Finance" (Pearce & Mills, 2002), which were developed under the chairmanship of the

Corporation of London, aim to promote the provision of financial capital and risk-management products to development projects and businesses that promote (or do not harm) economic prosperity, environmental protection, and social justice. The principles, which target the mainstream financial-services industry, hope to bring new investment and to deliver on-the-ground results quickly to areas where markets function poorly such as (sub-Saharan Africa).

Tourism. International tourism has a major environmental and social impact. While certain concrete actions (such as environmentally-aware supply-chain management or increased spending by tourists in local communities as opposed to resorts) could make mass tourism more sustainable, financing is hard to obtain. The UK tourism industry is developing an action plan and setting up a Responsible Tourism Foundation to fund sustainable tourism projects.

Energy. Created in response to Tony Blair's call to action for business, the UK Business Council for Sustainable Energy seeks to develop business solutions to the challenge of a low-carbon economy through increased efficiency and a larger role for renewables. The Council also considers business responses to a shift towards distributed generation. This effort builds on, for example, work by the G8 Renewable Energy Task Force.

Water and sanitation. Safe drinking water is a crucial element of the development process. An initiative that partners UK communities with small cities in Africa aims to economically deliver this service to poor communities by using innovative financing methods and building local capacity.

A Presidential Agenda

On February 22, 2002, U.S. environmental groups and intellectuals—including Nobel Prize winner Dr. Mario Molina of MIT and Gus Speth, dean of the Yale School of Forestry and Environmental Studies—issued a Call for Action urging, among other things, President Bush to commit to attend the Summit. But does this add up to a presidential agenda? Tony Blair seems to think so. The Summit will be the largest gathering of leaders since Rio in 1992. It will not only provide a platform for these leaders to express their

political will to face the new challenges, but it will also highlight concrete innovative projects, ideas, and partnerships to deliver results. It will address real issues for real people. Why would the United States want to unnecessarily refuel a debate on its rightful role in the world come August 2002? Monterrey provided President Bush with a firm platform to step onto; he should also personally deliver the United States contribution to the Summit.

Wheeling and Dealing

The preparatory process for Johannesburg will translate the broad, emerging consensus into: (a) an agenda; and (b) specific, time-bound initiatives similar to the UK partnerships described above. These so called "Type II" outcomes, however, will not suffice. A clear role remains for governments—including multilateral governmental commitments—to jointly remove barriers to sustainable development. As Kofi Annan pointed out in a February 2002 speech at the London School of Economics (Annan, 2002), the market cannot do it all. Official Development Assistance still plays an important role—for example, in strengthening capacity and supporting improved governance in Africa.

What about the "Global Deal" (a detailed push by some European and African leaders for agreements at Johannesburg that would implement Agenda 21 principles)? In my view, aside from a short purposeful statement by leaders, the Summit should provide the space for many deals—big and small, between governments, between business, and between other non-governmental groups. The Summit process should encourage them to be concrete and inclusive and incorporate some element of reporting, to allow learning and sharing. One lesson we did learn from Rio: implement what you pledge before pledging further. Targets need to be designed with monitoring and verification mechanisms in mind and with an assessment of resource implications.

Many of the deliverables we seek have already been developed and simply need a more receptive audience. The integrated global agenda for the Summit seeks to cement the relationship between these partnerships and high-level political commitment. In sum, the Summit aims to provide the political space for the challenging tasks ahead.

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ELIMINATING POVERTY: JOHANNESBURG'S VALUE-ADDED? *By John W. Sewell*

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t is now widely accepted that the main threats to the environment stem from both overconsumption in rich countries and poverty in developing countries.

Recognition that overconsumption and poverty contribute to environmental degradation is not new. In particular, poverty has long been identified as one of the main causes of environmental stress. The reason is simple. Poor people have no choice but to live for the moment. The poor must consume scarce resources such as food, land, forests, and water, or they will not survive.

Poverty eradication has emerged as a critical issue in the preparatory process for Johannesburg. But the key question is whether or not the conferees will go beyond mere rhetoric and produce firm commitments by both developing and developed countries to eradicate absolute poverty in the next decades.

Fortunately, an international consensus has emerged around the necessity of eliminating poverty by diminishing the barriers that keep poor people poor. There are also some rough estimates of the external resources needed to meet that goal.

The consensus is reflected in the Millennium Development Goals, which were endorsed by 149

heads of government at the United Nations Millennium General Assembly in September 2000. The Millennium Goals include the following targets, to be achieved by 2015: (1) cutting in half the number of people living in absolute poverty; (2) ensuring that all children complete a full course of primary education; (3) reducing the gender disparity in all levels of education, and in primary and secondary education by 2005; (4) reducing child mortality by two-thirds; (5) reducing maternal mortality by three-quarters; (6) reversing the spread of HIV/AIDS and the incidence of other major diseases; and (7) reversing the loss of environmental resources. A number of countries and many development agencies are adopting and acting upon these goals.

Developing and Developed Countries: Responsibilities

Commitments by developing countries are critical to meeting these goals. Economic, political, and social development will not take place unless governments and their constituents make the tough choices to balance economic efficiency, political openness, social progress, and equity while protecting the environment. Developing countries must commit to adopt growth-

oriented economic policies, to cut wasteful military expenditures, to redirect current social programs away from the middle class, and to transfer resources to poor people and poorer areas. Actors in the developed world—whether governments, international institutions, or nongovernmental organizations—need to encourage and support these commitments and encourage developing-country leaders to undertake and implement difficult and controversial policies.

But commitments by developed countries are equally critical. First, these nations must remove the high barriers in their markets to products for which developing countries have a comparative advantage. Developed-country tariffs and subsidies cost developing countries far more than the annual foreign aid these countries receive from the industrial countries. The trade liberalization discussions scheduled to open late this year in Geneva offer an excellent opportunity for the developed world to remove these market barriers.

The developed world should also strengthen the international financial architecture to mitigate the financial volatility of recent years that has slowed (and in some cases reversed) development progress, resulting in greater impoverishment in developing countries.

Financing Needed

Developed countries should also provide the financing needed to help countries meet the Millennium Goals. Money matters if poverty is to be eliminated. Currently, the total flows of official development assistance (ODA) from the developed countries to the poorer countries are totally inadequate to support the programs and policies needed to meet the Goals. ODA flows in 2000 totaled U.S. \$53.7 billion, the equivalent of just over 2/10ths of 1 percent of the OECD countries' gross national income. (The official target, honored by only a few OECD countries, is 7/10ths of 1 percent).

Recent estimates show that achieving the Goals will require an additional \$50 billion a year in ODA (UN General Assembly, 2001; Devarajan, Miller, & Swanson, April 2002). Based on those estimates, a growing international campaign is attempting to persuade the governments of industrial countries to commit to such an increase in financial support. Several have done so.

Unfortunately, the governments at the March 2002 Monterrey UN Financing for Development Conference were not persuaded. The United States, in a welcome reversal of past trends, pledged to increase its ODA by \$10 billion over a three-year period beginning in 2004. But even this increase will leave U.S. ODA far below the percentage of national wealth the United States contributed in any year from 1946 to 1995. And while European Union members pledged an additional \$7 billion by 2006, the total developing-country ODA increase still falls far short of what most analysts agree will be needed to achieve the Millennium Goals.

Johannesburg offers an opportunity to revisit the issue of financing. Adequate financing is necessary to enable those in poverty to acquire the basic capacities—literacy and better health—to deal with a globalized world. Making commitments *now* will be important to encourage governments to make the tough policy choices that the Goals require. More widespread commitment will also support those governments already on board.

Reform the Aid Business

But additional money will not achieve the desired goals unless donor countries change the way they give aid. *How* the money is spent matters as much as *how much* money is available. The aid "business" needs reform. The current system has too many countries trying to do too many things in too many places.

One example illustrates the problem. In Tanzania there were more than 40 donors and 2000 projects in the 1990s alone (Van de Walle & Johnson, 1996). Managing the large number of donors and projects takes an inordinate amount of time for officials in the developing world, who already are hard-pressed and understaffed. This bottleneck often leads to less-thanoptimal development results.

A great deal has been learned over the last forty years about ensuring that aid programs effectively support the development choices of countries and people. Ideally, a new approach drawn from the lessons of the past would marry two essential elements. First, it would give responsibility for forming and implementing development strategies to the recipient country. Second, this approach would enable donors to judge recipients' development strategies according to donor criteria and to make *country* (but not program or project) choices.

One proposal which meets those criteria calls for a "Common Pool" approach (Kanbur & Sandler, 1999). Under this approach, donors would put money into a common pool which, combined with a country's own resources, would finance development plans that

reflected the country's choices and preferences. There undoubtedly are other approaches (Birdsall & Williamson, 2002; World Bank, 2000). Most importantly, any approach must give program responsibility to the recipient countries while providing donors with transparent and full information about national development strategies and how the funds are used.

International Public Goods for Sustainable Development

Finally, the conferees at Johannesburg will advance the debate if the Summit's final agreement makes a clear distinction between (a) the importance of the developed-country patterns of industrialization (based on fossil fuels), global environmental damage will grow to a point of irreversibility. In these cases, environmental, health, and development professionals have a common interest in promoting development programs that build rural-based health-care systems or develop alternate sources of energy.

But in other cases, the link between IPGs and development assistance is less clear. For instance, countries can either purchase global satellite network access or conventional aid to help them finance it. With other IPGs (such as developing a vaccine for HIV/AIDS), rich countries can supply the IPG through their well-funded research establishments. Financing,

The aid "business" needs reform. The current system has too many countries trying to do too many things in too many places. —John Sewell

addressing poverty, and (b) the provision of International Public Goods (IPGs) for sustainable development. Both issues are important and closely related, but not the same.

Simply put, IPGs are activities or products created to address problems that spill across the borders of two or more countries. Examples of IPGs include: (a) vaccines for new and old diseases (HIV/AIDS is the prime but not only example); and (b) the reduction of CO₂ emissions. Because the benefits of public goods are available to more than one country and because of the difficulties of pricing those goods, the need for IPGs is often greater than the supply. As environmental problems multiply and globalization leads to the rapid spread of new and old diseases, interest in the provision of IPGs has risen.

In recent years, there has been a tendency to use the growing need for IPGs as a new rationale for additional development assistance. In some cases, a close link does exist between IPGs and poverty. HIV/AIDS and carbon emissions are good examples: a vaccine for HIV/AIDS or a slowing of the growth of carbon emission are public goods that will benefit a large number of countries and people. Furthermore, poverty has helped cause both problems, and poverty-oriented development is a part of their solutions. HIV/AIDS spread because people were not educated about the problem and because preventative healthcare systems are weak or nonexistent in many of the affected countries. Similarly, if poor countries follow

however, will be needed to enable poorer countries—and particularly poorer people—to purchase the vaccine at the lowest possible cost. In these cases, however, the financing to supply the IPG will be competing for always-scarce resources that will be needed for development programs aimed at meeting the Millennium Development Goals.

Finally, in still other cases such as water, the problem is not global but regional. Affected states will have to devise the solutions in these situations, although external resources may be needed to support the costs of participation and implementation by poorer countries.

A Chance for Concerted Action

The links between IPGs and poverty are real, but not the same in all cases. Therefore, the discussions at Johannesburg must clarify these links. Above all, Summit conferees must ensure that the final agreement gives equal priority both to poverty and to the need to provide IPGs for sustainable development. Through this equal weighting of priorities, Johannesburg would have the promise of creating an important alliance between those seeking to end poverty and those who want to protect and improve the environment. Such an alliance does not yet exist. Both groups acknowledge the other's concerns, but remain focused narrowly on their own issues. As a result, both groups are missing opportunities for influence that would flow from a combined effort. For developed and developing

countries to create and implement a set of agreements to meet both important goals, poverty-alleviation activists and environmentalists must work together to influence the political agenda in both rich and poor countries. \mathbf{W}

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POPULATION/POPULATION-ENVIRONMENT

POPULATION AT THE SUMMIT

By Roger-Mark De Souza

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It is very important to clarify some misconceptions about the role and meaning of population issues for the Johannesburg Summit. First, however, we need to understand what population means and what role it has in sustainable development.

1. The meaning of population. Discussions on population and environment linkages often refer to population in three different ways. First, population dynamics—which refers to population size, growth, density, migration, urban/rural distribution, age/sex structure, ethnicity, and vital rates (fertility, mortality, morbidity, nuptuality, etc). Second, family planning and reproductive health—which includes family planning and reproductive-health services, women's health and status, pre- and post-natal care, contraceptive prevalence, and unmet need. Finally, population often refers to people—meaning society, population participation, and equity. Before discussing the role of population at the Summit, we

must clarify which definition we are using.

2. The elements of sustainable development and the role of population dynamics within discussions on sustainable development. At a December 2002 ECSP Wilson Center meeting, Dr. Crispian Olver, the Director-General of the South African Department of Environmental Affairs and Tourism, presented South Africa's goals for the Summit under the slogan "People, Planet, and Prosperity." His presentation and responses to questions clearly showed that the Summit organizing committee is not referring to the first two definitions of population. Instead, it is focusing on what is often referred to as the "three legs of the stool" of sustainable development: equity, environment, and economics.

This emphasis, however, misses the point that population dynamics and reproductive health are key to all of these components of sustainable development.

The Summit's discussions should include these key components and must convey the complexity of the linkages. Without a doubt, a number of intervening variables affect the population and environment linkage (such as economic status, education, technology, institutional and policy arrangements, and cultural/historical factors). But demographics do matter. Human well-being relies on improved reproductive health for men and women. Providing voluntary family planning for men and women, combined with investments in education for girls, assures the equitable distribution of societal benefits and the well-being of families. It also increases economic output and improves environmental conditions.

Today's recognition of the importance of population dynamics is also driven by a more sophisticated understanding that it is no longer a question of people versus the environment, but a question of how people and the environment affect each other. In addition, we are witnessing a greater acceptance of the unprecedented human impact on the environment and of the transboundary nature of many of these issues. Four trends brought these issues to the attention of policymakers: (1) international trends and indicators suggested

the scale and complexity of the issues; (2) champions and coalitions helped bring the issues to the attention of key policymakers; (3) key events, especially the past decade's UN conferences, generated attention; and (4) policy alternatives for addressing these issues are now being proposed.

3. International consensus and the need for policy action. At the 1992 Rio Summit, there were clear hopes that the all countries will become more environmentally conscious. If Johannesburg is to examine these hopes in the context of sustainable development, population issues must be part of the discussion. At the International Conference on Population and Development in Cairo in 1994, international consensus recognized that population policy must work towards improving social conditions and providing individual choice. These themes of social improvement, choices, environmental conditions, human well-being, and population are inseparable. Policy action must address key questions of population movement that include urbanization, population momentum and population growth, and sustainabledevelopment paths. www

THE IMPORTANCE OF CAIRO By Melinda Kimble

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Nations used its convening power to encourage member governments, civil society, and a variety of nongovernmental organizations to implement Agenda 21—the visionary action plan of the 1992 Earth Summit. These meetings developed concrete implementation measures around the key elements of sustainability. Among the meetings convened in the wake of Rio, the 1994 International Conference on Population and Development (ICPD) figured prominently. Yet the ICPD's message has been lost in the ongoing social controversy surrounding the health services that might be provided to women and men

seeking to maintain the size of their families while protecting their health.

In Rio, participants recognized the family as the basic unit of society as well as the need for its protection and respect. Rio also confirmed that the goals of environmental protection, economic growth, and social development were interdependent and must be attained in balance to achieve sustainable development. The Cairo process reaffirmed the pledge to strengthen and support the family as the basic unit of society; it also underscored that health-care services provided to a country must harmonize with the laws, traditions, and cultural practices of that country.

At the same time, Cairo recognized that a growing number of couples throughout the world want to have healthy children and reduce family size. If all of these couples gain access to reproductive health services by 2005, the resulting population growth trends will reflect a reduction of fertility in many developing countries as global population moves towards an equilibrium point. Such a trend in population growth will reduce pressures on land, water, resources, and entire ecosystems. This trend would improve efforts to increase sustainability and preserve resources for future generations. To achieve this goal, however, these individuals need access to information, health services, and the availability of appropriate reproductive health supplies as part of a primary health services package that provides prenatal, pre-pregnancy, infant, and adult care to the entire family.

The spread of HIV/AIDS further compromises women's and girls health globally. In societies where women and girls have limited access to education and reproductive health care, HIV/AIDS rates are soaring rapidly, particularly in Africa. To protect their lives and those of their children, we must prioritize access to health care—particularly reproductive health care that incorporates prevention strategies for HIV/AIDS.

I believe that the HIV/AIDS pandemic in Africa is undermining the options for sustainable development. Without addressing and containing the spread of HIV/AIDS, many African states will have their budgets—and their most valuable human resources—consumed by managing the disease for the next decade. This is a particular challenge when

infection rates are soaring among adolescents as well as adults. Sustainable development depends on a healthy society and economy, and HIV/AIDS holds the potential to compromise both.

For societies with large populations and limited government resources, the most important goal is to reduce poverty. Reducing poverty requires not only expanding employment opportunities, but also improving the population's health and education. Countries that devoted 15 to 20 percent of their resources to health and education since the 1960 development decade are generally better off today than those countries that did not make that choice. An investment in people through education and health care brings lower fertility rates, healthier and more successful children, and economic growth.

A key component in efforts to address poverty the goal of the UN's sustainable-development agenda—must be supporting healthy and sustainable families. The goal of healthy families requires an active commitment to the Millennium Development Goals and a donor effort to ensure demand for reproductive health services and supplies is fully met. A reaffirmation of the Cairo commitments at Johannesburg would be an important step in ensuring the implementation of the Cairo Plan of Action and the broader goal of eliminating poverty. These commitments can then set the stage for reducing poverty throughout the world and creating the conditions for sustainable development. Given the importance of the ICPD program to global progress towards sustainability, its implementation should be a key commitment of the Summit. w

SIDESTEPPING POPULATION, ENVIRONMENT, AND REPRODUCTIVE HEALTH AT JOHANNESBURG

By Frederick A.B. Meyerson

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uman population is arguably the single most important determinant of environmental change, and it deserves a central role at the Johannesburg Summit. Unfortunately, the Summit appears to be on a path to repeat mistakes made at the 1992 Rio and 1994 Cairo (population) conferences, which separated environment and development issues

from population and reproductive health under the questionable rationale that the two meetings should not cover the same ground. As a result, the population-environment relationship was deferred and left unaddressed by both conferences.

As of this writing in May 2002, the Summit negotiation text also contains no substantive acknowledgment that human population size or growth is a determinant of sustainable development or environmental quality. And despite the fact that it is hard to imagine sustainable development without adequate reproductive health care, the negotiation text mentions reproductive health only once—and even this reference has been vigorously opposed by the United States, the Vatican, and a few other countries.

and well-being in this century.

One of the greatest global environmental threats is the loss of biodiversity, an issue that the current Summit text does cover in several places through references to the Convention on Biological Diversity (another Rio by-product that as yet has failed to meet expectations). The leading cause of species extinction is the loss of habitat, particularly as a result of tropical

The location, density, and movement of people are critical components of sustainable development and biodiversity conservation. —Frederick A.B. Meyerson

The current opposition to linking population and reproductive health with environment and development at the Summit has primarily religious roots. However, this stance also fits into a broader "divide, obfuscate, dilute, and conquer" strategy employed by those parties who simply oppose strong or enforceable international agreements. Despite our rapidly expanding scientific and technological capacity to view and manage global environmental and human systems as an interconnected whole, there are unfortunately many political reasons for segregating population from environment and development (and segregating particular issues within those topics from each other).

Whatever the motives, the process and results for Johannesburg have thus far been frustrating, inefficient, and balkanizing. Enough diplomatic sand has already been willfully thrown into the machinery of the Summit that its chairman Emil Salim remarked in May 2002 that most people expect Johannesburg to be the last global conference of its kind. That result would be a tragedy, because the 21st century will provide not only the most severe environmental, climate, and human-development challenges we have ever faced, but also the greatest array of sensory and analytical tools to understand and address those challenges.

I will briefly focus on two critical, ongoing environmental issues—biodiversity loss and climate change—whose causes and solutions are inextricably linked to demographic change and policy. While most demographers project that global human population will peak some time in the 21st century, the size and timing of that peak are debatable, and population will greatly affect and be affected by both development and environmental policy. Geographical location, migration, age structure, and consumption patterns will also be major factors affecting human development

deforestation. Some analyses, including my own research, have demonstrated a strong correlation between increasing human population density and decreasing forest cover at local and regional scales (Meyerson, 2001). Other related studies indicate that most tropical forests can sustainably support only a very low population density (one to two persons/square kilometer) without significant ecosystem alterations and biodiversity loss. Therefore, the location, density, and movement of people are critical components of sustainable development and biodiversity conservation.

Many tropical forests are in areas with high population-growth rates, poverty, and low access to reproductive health services. The understandable historical tendency of family-planning service providers to focus on urban areas first (because of efficiencies of scale and limited funds) has often left the agricultural and forest frontier with under-served populations. One attractive, achievable, and relatively inexpensive solution is to greatly expand existing pilot programs that integrate conservation and reproductive health efforts.

Human population and greenhouse gas emissions continue to rise, but global average per capita emissions have been essentially level since 1970—a trend that is also true for U.S. per capita emissions. Although the causal relationship is complex, population and emissions growth are thus strongly correlated at both scales. Several studies have concluded that assuring access to voluntary reproductive-health care (which often results in lower fertility rates) is one of the most cost-effective means of reducing greenhouse gas emissions in the long run—and with them, the rate of climate change. However, Summit negotiations to date have largely avoided discussing either climate-change policy or population separately or together.

To adequately address population and environment, Johannesburg and the upcoming Cairo+10 conferences should be better integrated than their 1990s predecessors. But the current structure of negotiations for Johannesburg makes broad progress on population-environment issues unlikely. And almost no preparations are underway for a Cairo +10 population conference in 2004. Indications are that it either will occur only in a diminished form or not at all.

Part of the problem with the Johannesburg Summit is an inherent drawback of UN negotiations, which are about the rights and interests of nations not the interests of humanity as a whole, the environment, or the earth (including its people). The interests of nations generally involve jockeying for position to capture as much as possible of whatever prize is at stake. In the case of Johannesburg, the stakes have been chiefly defined not in environmental terms but in monetary ones—in issues such as trade versus aid, governance, and capacity building. This emphasis has inevitably shifted the Summit's focus toward tensions between donor and recipient countries and underlying development awav from and environmental concerns.

While financial and management issues are important, they do not get to the heart of the difficult choices that must be made to ensure progress on sustainable development. Population-environment issues ultimately involve trade-offs between individual human rights and collective human rights, between

present and future generations, and occasionally between the survival of humans and those of other species and ecosystems. The environmental and human rights movements have tried with some success to blur these inherent tensions in order to create coalitions. But environmental groups cannot always be Robin Hood and the protectors of Sherwood Forest at the same time. Protecting the environment and other species often involves some restriction of individual human behavior with respect to resource use. Johannesburg and similar conferences should place these trade-offs on the table in plain sight and plain language. Otherwise, both the debate and resulting sustainable development policy will remain fuzzy and even self-defeating.

Despite these challenges, excellent opportunities exist at every geographical scale for synergy between the family planning/reproductive health and conservation communities. Family size and migration decisions—which are critical to local and global environmental and development goals—are made one person and family at a time. Both family-planning and conservation organizations have an interest in ensuring that these decisions are voluntary, well-informed, and with full access to reproductive choices. Therefore, collaboration between conservation and reproductive health projects (on a local scale and in the broader context of the Cairo, Rio, and Johannesburg agreements) offers the best opportunities for population-environment progress.

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ACKNOWLEDGING THE OBVIOUS AT JOHANNESBURG By James D. Nations

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uring a recent television documentary on global environmental change, commentator Bill Moyers noted that "sometimes the most difficult decision is whether or not to acknowledge the obvious."

As thousands of heads of state, government officials, NGO leaders, and civil-society groups prepare for the upcoming Johannesburg Summit, my concern as a conservationist is whether or not the assembled leaders will focus on the difficult but obvious questions. Or will they instead continue to dance around the difficult issues because those issues are too contentious, too frightening, and too difficult to deal with?

Many of the world's development agencies are focused now on funding "poverty alleviation" at the expense of financing the survival of the biological foundation for life on earth. But the focus on poverty creates a situation in which we promise jobs and economic growth in an increasingly degraded global environment. The obvious question is: can we demonstrate direct links between environmental degradation and poverty?

More to the point, can we demonstrate direct links between environmental degradation, poverty, and population growth? We know that the global biodiversity hotspots—the most endangered ecosystems on earth—are also population hotspots, the regions where human populations are growing most rapidly. These are the same regions in which economic and governmental institutions seem least prepared to address these challenges. What does this portend for human society and biological diversity, and what should we do about it?

On February 6, 2002, Director of Central Intelligence George Tenet testified before the U.S. Senate Select Intelligence Committee that "demographic trends tell us that the world's poorest and most politically unstable regions, which include parts of the Middle East and sub-Saharan Africa, will have the largest youth populations in the world over the next two decades and beyond" (Tenet, 2002),

He might well have been thinking of a recent meeting held by the Environmental Change and Security Project ("Young men and war," 2001), which noted "an uncanny correlation between the ratio of young men in a society and that society's involvement in conflict."

Here again we are talking about the same regions of the earth (think Chiapas, Guatemala, Somalia, Rwanda, Cambodia, the Philippines)—places we might call the environmental/population/human conflict hotspots. Should we dismiss this correlation as a conundrum?

Finally, the grotesque disparity between the developing and developed world in wealth and consumption of resources has pushed us into a 21st century of "a relatively small number of rich, satiated, demographically stagnant societies and a large number of poverty-stricken, resource-depleted nations whose populations stand to double within 25 years" (Connelly & Kennedy 1994, page 69).

How long will the developed world remain in control of this situation? As the deputy secretary of Singapore's Foreign Ministry pointed out in 1993: "Simple arithmetic demonstrates Western folly. The West has 800 million people. The rest of the world make up five billion [as of 1993]. No Western society would accept a situation where 15 percent of its population legislates for the remaining 85 percent." (Connelly & Kennedy 1994, page 76).

Is sustainable development the answer to this challenge? What is the role of development assistance, education, women's empowerment, family planning, armies and smart bombs, and environmental protection?

Meanwhile, rather than await direction from the leaders of the Johannesburg Summit, reproductive health and conservation organizations can pursue beneficial collaborations—demonstrating a viable, positive path toward Rio+20 and thereafter.

Successful examples of this type of collaboration have already occurred. We have learned over the past five years that conservation organizations can partner with family planning/reproductive health groups to deliver information, new attitudes, and needed services to families eager for such services in the biologically-rich regions of the planet. This partnership builds on

both groups' strengths. The conservation organizations have access to these regions and the cooperation of local communities. They speak the languages, know the leaders, and understand the linguistic, cultural, and political nuances of the social environment. The reproductive health organizations have the medical and scientific expertise as well as decades of on-the-ground experience in urban areas and large rural communities. Partnership brings us the capacity to deliver these services to dispersed rural families on the edge of the agricultural frontier in high biodiversity hotspots. We should put together partnerships in as many places as possible.

In addition, both groups have recognized a common methodology. By improving the economic

status of women, educating children (especially girls), and eliminating poverty in the communities we work in, both groups achieve their goals. Educated, empowered populations who lift themselves up from the poverty level are more likely to protect the natural resources upon which they themselves depend. The fact that this methodology of achieving conservation goals also has the corollary—and voluntary—effect of dampening population growth is a happy circumstance.

If this concilience of interests—conservation, family planning, and poverty alleviation—could top the agenda at Johannesburg, the Summit would be a conference to remember. **W**

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HIV/AIDS AND JOHANNESBURG By Geeta Rao Gupta

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he global HIV/AIDS epidemic poses the single greatest threat to the goals of sustainable development. Since the epidemic began, over 22 million people have died of AIDS, and more than 40 million people are currently infected. Rates of infection in some cities in Southern Africa range near 30 percent; life expectancy rates in many African countries are plummeting by as much as 30 years; and infection rates in Asia, the Caribbean, Central America, and Eastern Europe are rising.

By far the most catastrophic implication for future

sustainable development is the impact of HIV/AIDS on youth. Currently, 12 million young women and men between the ages of 15 and 24 live with HIV/AIDS, with an additional 7,000 new infections in young people each day. Young women in particular are several times more likely than young men to contract HIV. In sub-Saharan Africa, 12 to 13 women are infected with HIV for every 10 men. In nearly 20 African countries, young women have an infection rate of 5 percent or more. Thus, any plans for sustainable development must give serious thought to how to empower young

people—particularly young women—to protect themselves against HIV infection.

Young women are biologically more vulnerable to HIV infection; but economic, social, and sexual systems also create an imbalance of power that increases the risk of young girls acquiring HIV/AIDS. Gender inequality and lack of power in sexual relations mean that men have greater control over when, how, where, and with whom sex takes place. For young women, this often means vulnerability to infection. sexual coercion, and violence. Girls who lack opportunities for education and employment are (a) more likely to exchange unprotected sex for money or survival, (b) less likely to be able to negotiate protection with their partners, and (c) less likely to leave sexual relationships that they perceive to be risky. The norms of virginity for unmarried girls, paradoxically, increase their risk of infection by restricting their ability to ask for information about sex out of fear that they will be thought to be sexually active. Strong norms of virginity also put young girls at risk of rape and sexual coercion in high-prevalence countries because of the erroneous belief that sex with a virgin can cleanse a man of infection.

Thus, in an era of HIV/AIDS, to achieve the goals of sustainable development, policies and programs must provide young women with access to livelihoods; eliminate violence; promote education, skill development, and employment; and eliminate social, political, and economic discrimination.

As a critical step in this direction, leaders at the Johannesburg Summit must reaffirm the goals established at the UN General Assembly Special Session on HIV/AIDS—to reduce HIV prevalence among men and women age 15 to 24 in the most affected countries by 25 percent by the year 2005, and by 25 percent globally by 2010. In addition, leaders at the Summit must commit to comprehensive integration of the concerns of youth into sustainable development policies and programs.

Without these commitments and the actions that would result, HIV/AIDS's assault on youth will dramatically weaken our link to the future, thereby undermining the very notion of sustainability. **W**



TRANSBOUNDARY WATER ISSUES AT THE SUMMIT—LOST OR FOUND?

By Alfred M. Duda

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any very important preparatory meetings over the last year assembled the usual long list of priorities for both March's Monterrey International Conference on Financing for Development and August's Johannesburg Summit. Even the Millennium Development Goals (MDG) have been included. But missing from this list is the urgent need for improved management of transboundary freshwater basins and shared marine ecosystems.

Yet what is more basic to both security and development than balancing competing demands for water resources so that those resources can be sustained for our children? What is more fundamental to poverty alleviation, food security, and guaranteed livelihoods

than ensured access to the goods and services water ecosystems provide? To develop sustainably, both North and South must reverse the growing degradation of transboundary freshwater systems and the depletion of coastal oceans. Johannesburg can be a first step toward developing the site-specific, resource-management partnerships to ensure the sustainable use of these large, multi-country water systems.

Gloomy Arithmetic Reduces Human Security

Sector by sector, development of freshwater basins has resulted in unprecedented degradation of the water ecosystems on which entire nations depend. River pollution and flow depletion now cross national borders and reach downstream coastal zones—

resulting in irreversible saltwater intrusion and coastal ecosystem degradation. Destructive overfishing is now depleting coastal ocean areas. These dynamics are creating future flashpoints over conflicting uses of river basins and marine ecosystems. Indeed, conflicts between competing sectoral uses of water are becoming more common and are threatening the

withdrawal would trigger massive ecosystem collapse, social unrest, and tension among nations.

Coastal regions face an even more critical situation. Through the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP), the United Nations has described the collapse of coastal and marine ecosystems around the

Conflicts between competing sectoral uses of water are becoming more common and are threatening the internal and external security of many nations. —Alfred M. Duda

internal and external security of many nations. Nothing less than the economic security of nations and the social viability of inland and coastal communities is at risk.

The arithmetic is gloomy for freshwater basins and the people living in them. The World Commission on Water (2000) described the water crisis as not a shortage of water but a crisis of policies, institutions, and lack of investment. While the population of our planet tripled over the last century, water use increased six-fold. Currently, 2.4 billion people lack access to basic sanitation, and 1.1 billion lack access to safe water sources. While nearly two billion people live with water scarcity today, the number is expected to rise almost four billion—half the planet—by 2025 unless radical reforms emerge. Lack of sewage treatment will also make longer stretches of international rivers unusable for downstream countries. The World Commission noted that addressing these problems will require an extra \$100 billion in investments annually.

Existing water withdrawals and pollution loading have already created an unprecedented environmental disaster by degrading the world's aquatic biodiversity. One-half of our planet's wetlands have already been lost, much of it converted to agriculture. (Indeed, agriculture-much of it subsidized with wasteful irrigation—is responsible for over 70 percent of water use globally.) Rivers, lakes, and deltas have already dried up because of deforestation and water overuse, and poorly treated or untreated human sewage fouls most major rivers and coastal ecosystems. Using conservative assumptions, the World Commission projects that demand for water withdrawals will likely increase 40 percent by 2025 in order to meet increased demand in irrigation, industrial activity, and human water consumption. Such an increase in water world (GESAMP, 2001). Not only has pollution from sewage, mud, and nitrogen from fertilizers degraded these ecosystems, but the conversion of coastal wetlands (such as mangroves) to short-lived, high-profit aquaculture facilities that can produce foreign exchange has worsened the degradation.

In addition, massive overfishing of marine ecosystems has resulted in their global collapse. According to official statistics, almost every world fishery is at its limit, collapsed, or in recovery. More recent assessments show that fishery and biodiversity depletion of the oceans is much worse than originally thought, with existing systems having only a small fraction of the biomass and diversity of previous years (Jackson et al., 2001). Consequently, marine ecosystems are now unable to support projected increases in population the way they could have decades ago. This fishing frenzy is driven by \$15 billion in annual subsidies from governments, which lead to even more depletion and strip-mining of the oceans.

Restoration of the marine biomass is essential for the economy of all nations. Such phenomena as: single-species management in isolation; bilateral access agreements with foreign fleets; illegal, unregulated, or unreported fishing; discarded by-catch; habitat destruction from factory trawlers; government subsidies; and ineffective fisheries governance all combine to degrade our coastal and marine systems. The resource is not properly managed to reflect that many nations compete for the same resource (just as they compete for the same water in river basins). Adverse impacts to the livelihoods of poor coastal communities will worsen if the recovery of coastal and marine biomass can not be accelerated or if the sustainability of coastal ecosystems cannot be secured.

A New Imperative for Jointly Managing Transboundary Systems

Sixty percent of the water in our planet's rivers, half the Earth's land area, and 43 percent of its population is located in 261 transboundary freshwater basins. And 95 percent of the global fisheries' catch comes from "large marine ecosystems" that parallel the continental shelves and potentially represent multicountry, ecosystem-based management units for reversing the accelerated depletion of resources.

A valiant attempt was made in Bonn in December 2001 at the International Conference on Water to raise these concerns for attention at Johannesburg. But transboundary issues were the most contentious of any at Bonn and were quietly tucked away. Instead of looking at these multi-country water ecosystems and adjacent land as: (a) catalysts for cooperation on sustainable development, or (b) opportunities to pursue joint, multi-country development that collectively benefits all participating countries, some nations remain wary of basin-specific collaboration.

Johannesburg could spur the regional partnerships and collective action among nations that share transboundary basins or large marine ecosystems to deal with these issues. It could also foster new commitments to action that are needed: (a) under the UN Convention on the Law of the Sea for meeting Chapter 17 goals of Agenda 21, and (b) under the UN Convention on the Law of the Non-Navigable Uses of International Watercourses for meeting Chapter 18 goals. The ecosystem-based partnership between Canada and the United States on the North American Great Lakes-St. Lawrence River Basin serves as an example of the implementation of such integrated approaches. The Great Lakes-St. Lawrence basin was the first large transboundary system in which a joint management regime and collective national actions undertook to balance uses for social, economic, and environmental sustainability. The Great Lakes partnership illustrates two important points: (1) transboundary conflicts and disputes often trigger needed national reforms that are applicable nationwide, and (2) the partnership can mature over time into collaboration for mutual economic benefit and ecosystem security (Duda & La Roche, 1997). The Rhine River basin, the North Sea, and the Baltic Sea represent other globally-significant partnerships moving towards such reform and cooperation.

Reforms Needed in Both the North and the South

But the momentum set by these Northern

examples must move to the Rio Bravo and Colorado basins, to other transboundary rivers in Europe, and most of all to fishing fleets (European, North American, and Asian) that are depleting marine ecosystems of the South. Northern consumption and government subsidies drive overfishing. With international fisheries trade exceeding \$50 billion annually, governments of the North are stakeholders in the marine ecosystems of the South. Both should work toward sustainable use of this resource.

Without commitment of the South to: (a) stem corruption, (b) reform resource-management institutions and enforcement, and (c) enter into basinspecific or large marine ecosystem-specific partnerships for joint management, there will be no economic, social, or environmental security. And without Northern commitment to reform and to finance, transboundary ecosystem degradation in the South will continue. The North spends one billion dollars each day on agricultural subsidies that are damaging Southern ecosystems; it spends less than one-seventh of that on development assistance. The phase-out of environmentally-damaging agricultural and fishery subsidies could create tens of billions of dollars that could build developed/developing country partnerships toward sustainable development and use of transboundary ecosystems.

Pricing reforms for water-service delivery as well as national legal reforms will be essential for freshwater conservation. As Duda and El-Ashry (2000) have noted, no investment without such reforms will be sustainable. International finance institutions must play their roles as well by (a) fostering these reforms with their client countries, and (b) placing a priority on investments. Technical assistance could aid basin-bybasin management; it could also help balance land and water-resource use-patterns that can sustain communities with full participation by stakeholders. Pricing and other legislative reforms must also encourage public-private sector partnerships for investments—otherwise, from where will come the extra \$100 billion annual investment recommended by the World Commission?

For coastal and marine systems, an ecosystembased approach to management would require codification in national law to support integrated coastal management, improved fisheries management, participation in joint management institutions, and removal of damaging subsidies. Investments in marine protected areas and development of ecosystem-based regional conventions that represent country commitments to these partnerships are also critical, as is the reduction of nitrogen pollution-loading from fertilizers and sewage. We must coordinate and sequence support from international finance institutions rather than allowing it to remain fragmented.

In addition, fragmented, thematic, single-purpose agency programs simply do not harness stakeholders sufficiently to drive reforms. But the political momentum for such reforms could be driven by national commitments to joint management regimes

with international capacity building and support. Will the Johannesburg agenda meaningfully address transboundary collective action on specific water-related ecosystems? Will these issues be lost at Johannesburg? Or will they be found, perhaps renamed as essential partnerships for sustainable development? The social, economic, and environmental costs of inaction on transboundary water issues—and the resulting loss of security—is much too steep a price for the South to pay and the North to overlook. W

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A FRESHWATER ACTION AGENDA FOR JOHANNESBURG By Karin M. Krchnak

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lthough there are countless issues that need to be discussed at Johannesburg, none may be as critical as water. There is no more water on earth now than there was 2,000 years ago. But the limited supply of fresh water must meet the needs of a human population that has tripled in the last century and continues to grow at almost 80 million people per year. With this growing population has come increased demand for water to support industrialization, agricultural development, urbanization, and sprawl. Population growth and rising water-use have put the squeeze on available resources, causing wildlife and freshwater ecosystems to

disappear at alarming rates. Water stress and contamination are severe worldwide and the cause of widespread disease.

The Summit affords the world an opportunity to develop an action agenda on fresh water to ensure that this generation and future ones—and the species with whom we share the earth—have healthy freshwater resources. By addressing water, world leaders can make significant inroads in reducing poverty, improving human health, empowering women, and restoring ecosystems.

Other sectors will also benefit. New approaches to water conservation can help reduce energy needs

and the impacts of agriculture on the environment. Stakeholders—including nongovernmental organizations, women, youth, indigenous groups, industry, farmers, the scientific community, and trade unions—can also come together to reduce corruption in decision-making processes and improve equitable access to freshwater resources. Water is an issue that can help build alliances across communities, regions, countries, and international borders.

projects multiple scenarios for our future global population. The three scenarios—high (10.9 billion), medium (9.3 billion), and low (7.9 billion)—are designed to highlight a range of possible outcomes by 2050. All three of these scenarios—even the highest variant—assume continued declines in fertility (the number of children a woman will have in her lifetime). However, if we continue on our current path and fertility rates do not decline, the world will have 13

The Summit affords the world an opportunity to develop an action agenda on fresh water.

-Karin M. Krchnak

Water is also an issue on which substantial work has been done to establish principles for policy development and implementation. The United Nations Water Conference in 1977, the International Conference on Water and the Environment in 1992, and the Earth Summit in 1992 laid out principles for sustainable water management. The first World Water Forum in 1997 in Marrakesh called for a World Water Vision. Through a participatory process, the World Water Council led the development of a number of Water Vision documents. Recognizing the urgency of addressing freshwater conservation, the United Nations set targets in its Millennium Declaration (adopted in September 2000) to (a) reduce the proportion of people who are unable to access or to afford safe drinking water, and (b) to stop the unsustainable exploitation of water resources.

The key to success will be turning the vision and targets into action. The International Conference on Freshwater held in Bonn, Germany in December 2001 produced—through a multi-stakeholder dialogue—a set of Recommendations for Action that could be the basis for Summit development of a freshwater action agenda.

The Problem

Population and consumption will increase in coming decades, thereby straining our limited freshwater resources further and undermining the integrity of freshwater ecosystems.

As stated earlier, world population more than tripled in the 20th century—from two billion in 1927 to six billion in 1999. And population growth continues: with an annual growth rate of 1.2 percent, our population expands by approximately 77 million people every year (UNPD, 2001). The United Nations

billion people by the middle of the 21st century. The path of our population growth within this range of possibilities will be determined by the decisions made by today's young people and by the services and information made available to them.

Currently, humans use 54 percent of all accessible, renewable fresh water contained in rivers, lakes, and shallow underground aquifers. Population growth alone could push this percentage to 70 percent by 2025. If global water withdrawals continue to rise, humans could be expropriating over 90 percent of all available fresh water within 30 years (Postel et al., 1996).

Our increasing human numbers and our thirst for water are already impacting our freshwater resources in many ways. Industrial and agricultural development and urban sprawl are destroying freshwater ecosystems. Globally, the world has already lost half of its wetlands, with most of the destruction having taken place in the last 50 years (not coincidentally, as human population has grown the most). Human misuse of water resources is causing drastic drops in water tables around the world. In Texas, for example, ground water withdrawals from the Ogallala aquifer are occurring faster than rainfall can recharge it. Ever-increasing water withdrawals mean vulnerable conditions for humans and wildlife. Diversion and damming of water are reducing flow rates that can impact fish, birds, and mammals thousands of miles away and displace people from their homes. Agricultural, industrial, and urban pollution is degrading water quality and threatening the survival of species. Introduction of invasive species is causing a decline in freshwater biodiversity.

Caught between limited and increasingly polluted water supplies and rapidly rising demand from population growth and development, many countries face difficult choices. The World Bank warns that a lack of fresh water is likely to be one of the major factors limiting economic development in the decades to come. Nature is losing its capacity to provide fresh water for both the growing human population and wildlife.

Recommendations

Address Population Growth. To find a balance among population, water, and wildlife, we must address population growth. Even if the coming decades see a slowing of the growth rate, some population growth will occur. With increased population comes more agricultural and urban run-off, damming and diversion of waters, and industrial and municipal pollution. To slow population growth and allow freshwater ecosystems to sustain people and wildlife, we must increase funding for voluntary international familyplanning assistance through programs such as the ones run by the U.S. Agency for International Development (USAID) and the United Nations Population Fund (UNFPA). This funding increase will allow us to follow through on commitments made at the International Conference on Population & Development in Cairo in 1994.

Studies show that fertility rates drop most rapidly where there are improved child survival rates, higher education levels (particularly for women and girls), and workable voluntary family-planning policies. Girls who learn to read and write tend to live longer and have healthier children, and are also more likely to postpone parenthood and have fewer children, thereby helping to break the cycle of poverty.

Develop a Common Global Agenda on Freshwater Management. The global nature of freshwater problems is increasingly recognized both because water flows across international boundaries and because the problems are so pervasive throughout the world. Water stress and contamination are severe in many developing countries and of rising concern everywhere, resulting in widespread disease and death. Pollution from unsanitary household conditions as well as from industrial and agricultural sources lead to the spread of water-borne diseases, killing mainly women and children. With population pressures intensifying throughout the world, watershed basins cannot meet the increased demands of agriculture, leading to widespread hunger and malnutrition. Avoiding conflicts over freshwater resources requires global cooperation.

The United States should play an active role in international summits on sustainable development. It

should also make and keep commitments to develop a multilateral action plan to address water stress, to help conserve freshwater resources, and to provide equitable access globally. The plan should include gap analysis, prompt initiation of pilot projects and steps for broader action, benchmarks for progress, and reports on results. Many UN agencies are already working together and collecting data for release of the World Water Assessment Report at the Third World Water Forum in Japan in March 2003. The report, and others to follow, should serve as a baseline for the action plan and help countries assess progress on a regular basis. Further, it is critical to mobilize the world's resources to ensure that sound water-management strategies are implemented to produce results. At Johannesburg, world leaders should commit to establishing a Global Water Trust Fund. In this way, they will ensure that those that follow in their footsteps will look back upon the Summit as a hallmark event.

As part of this global agenda on fresh water, governments should provide citizens with access to water-related information. With little information available on the water requirements of flora and fauna, resource management fails to take into account the needs of aquatic species and wildlife. The Second World Water Forum, held in The Hague in March 2000, launched research projects to obtain data on the interdependence of water cycles and ecosystems. These data should be publicly available so that all citizens can participate in water decision–making processes.

Adopt National and Local Smart Water Management: National and local initiatives (as well as those at the international level) are crucial for turning a global vision on water conservation into reality. Policymakers at all levels must be educated on the links between population and water and the critical need for preserving healthy freshwater ecosystems and biodiversity. Policymakers also need to learn from experience the combination of methods—including appropriate market mechanisms—that will best fulfill in a balanced way the multiple water needs of wildlife, ecosystems, and human communities. Planning (urban, suburban, and rural) must take into account the needs of freshwater ecosystems and the wildlife that depend on them. This will help demonstrate that such costly and often destructive projects as dams and diversions should be avoided.

Water management also requires institutional and legal structures that are responsive to the needs of watersheds and river basins. National, regional, and local governments should promote enforcement of principles, including: requiring polluters to pay; sound investments in water conservation; the reduction of subsidies that encourage water-intensive agriculture; and the pricing of water resources to encourage equitable access to and efficient use of water for all uses, including the maintenance of natural water flows and levels essential for wildlife and ecosystems.

Follow a Personal Water Conservation Ethic. Ensuring clean and plentiful water for humans and wildlife depends on the involvement of each and every person. Each person should follow a water conservation ethic that recognizes the finiteness of fresh water and the dependence of humans and wildlife on healthy waters.

Conclusion

The tragic events of September 11 brought to the forefront the necessity of creating a more secure world and the relationship of security to sustainable development worldwide. A water-short world is an

unstable world. The potential for conflict increases with rapid population growth, as do incidences of water-related diseases.

The long-term solution to finding harmony between people and nature requires a worldwide recognition of the vital links among rapidly growing populations, escalating resource demands, and shrinking supplies. Recognition, knowledge, and concern can help build the political will and behavioral changes necessary to avert a worldwide water crisis. We can develop the commitment needed to assure that humanity's short-term use and waste of fresh water does not exhaust the world's finite water supply, leaving nothing for wildlife or for the future and destroying the ecological balance upon which human life depends. The message is clear—we must understand the threats to freshwater ecosystems and make choices to help preserve Earth's most precious resource. W

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WATER AND JOHANNESBURG: OPPORTUNITIES FOR PROGRAMS

By Gordon Binder

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he Johannesburg Summit is about new possibilities for addressing a sobering set of long-standing problems. Water is among the most important: few issues affect the daily well-being of people more than the availability of quality water.

Experts have taken to speaking of the gloomy statistics in this field: one billion people without access to safe drinking water; up to three billion with no sanitation; tens of millions of illnesses and several million deaths annually (including many children)

caused by diseases associated with polluted water. Solutions to these problems would require spending tens of billions of dollars more annually than is currently allocated to water concerns.

The drivers behind water demand and supply aggravate this already difficult situation. Growing populations, urbanization, economic growth, and food production will each continue to claim large amounts of water. And the supply side faces serious constraints. Freshwater supplies are not always where people live,

and in some places these resources are polluted. Too often groundwater is extracted unsustainably. And the potential for climate change to disrupt familiar precipitation patterns is all too real.

Challenges and Competing Goals

Johannesburg offers the chance to take stock again of these circumstances. Water was on the agenda at the 1992 Rio Earth Summit—principally in Agenda 21, which spoke to the management of freshwater and marine resources as well as the lack of environmental infrastructure in settlements throughout the world. But Rio mostly focused on climate change, biological diversity, and the need for more development aid.

No one should hold illusions about how much the Summit can accomplish. Drinking water and sanitation, however important, are not the only water issues on the agenda. Integrated watershed management, marine pollution, coastal decay, flooding and droughts, and the needs of wildlife and natural systems are also critical. And the gamut of water issues will vie for attention with other compelling problems—from HIV/AIDS and health to development, land degradation, energy, agriculture, and governance.

Participants should also keep expectations modest. Leading international institutions, from the World Health Organization to the United Nations Development Programme, have had only limited success in grappling with unmet water needs. The 1980s saw some progress, thanks to efforts undertaken when this period was designated the International Decade for Drinking Water Supply and Sanitation. Yet the statistics underscore that meeting water needs remains a daunting challenge.

Perhaps most difficult for the Summit is the question of how an *international* gathering of thousands, relying on declarations and forums, can realistically address such a quintessentially *local* set of issues as water supply and sanitation. The ability of municipalities or towns to finance and provide water services is certainly affected by national laws and policies on such issues as water-resource management, pricing, and pollution control. These national efforts deserve attention in Johannesburg. But laws and policies are still steps away from actually delivering water or sanitation to people locally.

A Chance to Make Progress

What can we expect from Johannesburg that will make a difference? While the Summit can and should

raise awareness and reaffirm the connection between water and the health of people, economies, and the environment, I see three opportunities at Johannesburg and beyond for progress in the water sector.

First, examine the record of private-sector involvement in water. Public-private sector partnerships have emerged as one viable model for meeting water and sanitation needs. These partnerships draw on private-sector capital and management skills. Yet some politicians, labor unions, nongovernmental groups, and others remain wary of private involvement for a variety of reasons (Gleick et al., 2002). The recent civil protests in Cochambamba, Bolivia, ostensibly over dramatic water tariff increases, a signal event in the eyes of some water experts for such partnerships (Finnegan, 2002)

Ironically, the private sector may not be all that sanguine about the commercial opportunities for water services in developing countries. At a recent World Bank lecture, J.F. Talbot, the chief executive of Saur International (a large international water operator), offered a somber assessment on the prospects for such commercial endeavors. Talbot said that, absent significant change in the financial, contractual, and technical arrangements of developing countries, fewer and fewer opportunities will offer viable or attractive business propositions for the handful of remaining private international water operators (Talbot, 2002).

Talbot explained that the 1990s had seen a marked increase in risks (country, contractual, regulatory, and currency) coupled with excessive, unrealistic expectations about what the private sector could actually deliver. As a consequence, operators who were once interested in developing-country markets now see only low and diminishing returns. These operators, said Talbot, are looking more to developed countries, which offer greater returns at lower risk. Investors, meanwhile, are moving to other, more remunerative sectors.

The Summit would do well to examine the private sector's current and potential role in meeting water needs. About 100 examples of private-sector participation in water service and sanitation have occurred over the last decade. The record of this participation in Buenos Aires, Jakarta, Manila, and elsewhere offers lessons and insights. Consider Buenos Aires, where the private sector has:

- Rehabilitated water services, which cut water losses from about 40 to 25 percent;
- Increased water access to 10 percent more of the city's population without tapping new water

sources:

- Increased sewerage service by eight percent; and
- Charged tariffs that, despite a recent increase, are still lower than those charged by the public utility before privatization (Prime Minister's Council, n.d.)

According to the World Bank, 1.5 million more people (mostly poor) in the Buenos Aires area have gained access to piped water since 1993, and 600,000 have sewerage connections (World Bank, 2002, p. 6). The Bank or a similar institution could provide a great service by presenting rigorous analyses of these experiences so others may learn.

Invariably, a focus on private-sector involvement in water leads to consideration of the context it takes to assure this model can work effectively and benefit those intended. Thus, good governance (including transparency, accountability, public participation, anticorruption, and dispute-resolution measures) constitutes an essential element in realizing the potential from private involvement in the water sector.

Second, showcase new technologies. These include: stand-alone, smaller-scale water treatment systems; solar-powered water pumps; point-of-use and point-of-entry purification devices; ultraviolet disinfection units; and smart meters and payment cards. These and other technologies offer new possibilities to help address unmet water needs. Opportunities also are emerging to use the Internet to disseminate information and make procurement more efficient. Improved and expanded technology-certification

regimes also can help people sort through the growing array of possibilities.

Third, focus on finance. From where will come the billions of dollars needed to expand service and repair broken systems? Development-assistance programs today seldom build costly infrastructure. Foreign investors and banks can and do provide some funding. But developing countries will likely have to finance most of the local water projects themselves. Outside of the advanced industrial countries, there are few functioning domestic capital markets. Although it is no small task to create such a market, Johannesburg could explain the rationale and help lay the groundwork.

Tariffs are a critical part of the solution to the financing challenge. Ideally, a tariff would be set at a level that would recover costs. Not only would it then support expanded coverage, maintenance, and repairs, but it would also induce conservation and efficient use. In addition, well–set tariffs would provide the returns necessary to attract more private capital (both domestic and foreign) as well as to spur innovation. While it is not always possible to set tariffs at an ideal level, it is possible to designate different rates for different users, targeting subsidies for those who really need them in a far more transparent manner.

Johannesburg and follow-on efforts will examine a long list of urgent needs. Amidst all the competing priorities at the Summit, no single issue will easily stand out. But a focus on new possibilities in the water sector just might offer hope to more people.

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Business, Investment, and Financing

JOHANNESBURG: TACKLING THE ISSUES HEAD ON By Tony Colman, MP

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"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs." ("Our common future," 1987)

hat are the key issues the Johannesburg Summit should concentrate on so that we meet present needs without impairing future sustainability?

First, we need to recognize the need for greater global investment. While the world may be on course to meeting the Millennium Summit target to halve global poverty by 2015, this achievement stems mainly from improvements in India and China. Other regions have not benefited from globalization, and some have even found themselves marginalized. In particular, many parts of Africa have stagnated and even regressed in terms of income per capita, service provision, and security. Indeed, nearly half of Africa's 600 million people live on less than one dollar per day. Many of them also live in conditions of conflict and insecurity. This situation is indefensible in a civilized world.

It will take a new level of dedicated partnership between African leaders, donor countries, and private investors to ensure that Africa's economic marginalization is reversed. This partnership will involve (a) new commitments to good governance and democratization from African leaders, coupled with (b) increased funding from the West to remove the obstacles to sustainable African development. We must channel our improved and expanded aid into vital areas such as conflict resolution, post-conflict reconstruction, infrastructure development, investment in human capital, and health provision.

Aid on its own, however, will never lead to a globally sustainable future. Africa also needs greater engagement in the global trading system, and it must create the environment necessary for foreign direct investment. African leaders should be allowed a greater voice in trade negotiations, as was seen at the WTO meeting in Doha. They must also make long-term

commitments to creating a stable investment climate in their countries.

There is also scope to use the export credit agencies of countries and multilateral agencies—such as the Export-Import Bank—to concentrate on underwriting exports and projects that meet sustainability criteria. The Export Control Bill currently under consideration in the UK Parliament for the first time includes the issue of sustainable development. Likewise, the OECD agreement on environmental considerations for all export credit agencies (which still requires ratification) could be used to channel foreign direct investment and exports in a more globally responsible direction.

The core issues of sustainable development to be addressed in Johannesburg center on the reduction of poverty and the provision of basic services to both the rural and the ever-increasing urban populations of the developing world. But poverty reduction and basic-service provision must be accomplished in a sustainable and appropriate way.

While a global health fund has been established to tackle the massive problems of HIV/AIDS, malaria, and TB, we have no such equivalent for the core services of water and sanitation which are, in fact, preconditions for basic and sustainable health. While less likely to make headlines, providing sustainable water and sanitation systems to expanding populations is one of the most challenging and important tasks facing this generation. These systems should also run on renewable energies. The entire effort will require both funding and better management.

The recent International Conference on Financing for Development in Monterrey has brought an almost unprecedented awareness of the need to increase sustainable development funds—which increases the feasibility of ideas such as the Tobin Tax. ¹ It is imperative that the Summit continue this momentum and emphasize how global sustainability is closely linked to development financing. Following the UK Chancellor of the Exchequer Gordon Brown's call

for a doubling of overseas development aid, the World Bank has announced similar recommendations. Johannesburg will provide the perfect opportunity to push this agenda forward, for the sake of what the World Commission on Environment and Development so aptly termed "our common future."



Notes

¹ The Tobin Tax was first proposed in 1978 by James Tobin, a Nobel prize-winning American economist. Tobin proposed a very small tax on foreign exchange transactions to deter short-term currency speculation. The Tobin Tax would be a multilateral financial transfer tax to reduce currency speculation, provide increased fiscal and monetary autonomy for nations, and to generate substantial revenue to fund social development and environmental protection.

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THE SUMMIT SHOULD FOCUS ON CORPORATE ACCOUNTABILITY

By Marian A. L. Miller

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Agenda 21 was intended to be the basis of a global partnership for sustainable development, but the realities of world politics and economics undermine the possibility of authentic partnership roles for many developing countries. States of developed countries as well as corporate actors determine today's global economic, political, and environmental agendas, in the process constraining developing countries' environmental policy options. Increasingly, transnational corporations (TNCs), with the assistance of influential states, are undermining the prospects for equity—an important prerequisite for sustainable development.

The documentary output of the 1992 United Nations Conference on Environment and Development (UNCED) did not encourage the regulation of TNCs, regarding them as just another set of the partners and stakeholders in sustainable development. But this concept was unrealistic from the beginning. In fact, the exclusion of regulations for

corporate activity reflected corporate influence on the UNCED process.

The profitability of many corporations depends on the successful promotion of harmful products and processes. TNCs do not consult with their developing-country partners, and they do not try to achieve consensus. Indeed, in the decade since UNCED, corporations have concentrated their efforts on institutional changes meant to eliminate or reduce the regulation of their activities. These efforts have served to emphasize conflicts of interest among corporate, state, and citizen actors over issues related to sustainable development.

A desirable outcome of the Summit would be a move toward regulations that would make corporations accountable not only for the economic impacts of their activities, but also for the environmental and social consequences of those activities. Voluntary corporate social responsibility mechanisms are inadequate because corporations do not operate in the public interest. In many cases, governments are not effective countervailing forces to corporations; they fail to adequately support the rights of citizens and workers in the face of corporate power.

Such a move toward regulating corporate activity would buck the trend toward establishing global rules to facilitate corporate activity—a trend that is essentially making national and local standards and regulations irrelevant. Governmental concessions have fed corporate power, and that power could be decreased if some of those concessions were withdrawn. At the Summit, states could start the process of taking power back from corporations: in the language to implement Agenda 21, they could insist that TNCs be accountable to the communities in which they operate. Bland,

ambiguous language about corporate environmental impacts will not be useful.

But any useful initiatives coming out of Johannesburg would represent only one prong of a multi-pronged effort to limit corporate power. In order for regulations established at the Summit to be effective, other international institutions need to take similar actions to support these regulations. Regulating corporations would have significant impacts in policy areas such as trade and investment, land use, food and nutrition, technology transfer, intellectual property rights, economic justice, and equity. These policy areas all have significant implications for the economic, environmental, and social pillars of sustainable development.

PRIVATE INTEREST, PUBLIC RESPONSIBILITY: MANAGING BUSINESS AND SUSTAINABLE DEVELOPMENT IN A GLOBALIZING ECONOMY

By Jacob Park

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n the surface, it is hard to imagine why a charity group might protest the efforts of the United Nations-backed Global Alliance for Vaccines and Immunizations (GAVI) initiative. Launched with great fanfare at the annual meeting of the World Economic Forum in 2000, GAVI is a public-private partnership designed to increase the immunization rate in 74 of the world's poorest countries. GAVI's partners include some of the world's prominent companies, foundations, international organizations, and nongovernmental groups. The Bill & Melinda Gates Foundation has already donated \$750 million to start a vaccine fund that will act as a financing arm of the GAVI initiative.

But according to the U.K.-based NGO Save the Children, GAVI risks becoming a "marketing vehicle" for the private-sector representatives on the GAVI board. "If members of the GAVI board are also involved in the development and supply of the very vaccines promoted by the fund, there is clearly a conflict of interest," argues Annie Heaton, a researcher at Save the Children. "We must ensure that this initiative does not become a marketing vehicle for the pharmaceutical companies by increasing demand for expensive new

vaccines without the promise of long-term funding" (UN Wire, 2002).

There are some obvious conflicts-of-interest when private-sector participants in an NGO's activities are in a position to benefit materially from that NGO's global philanthropic objectives. But Save the Children's criticism also aptly illustrates a broader and seemingly intractable global debate over the role the private sector—particularly multinational corporations—can or should play in mainstreaming sustainable development.

Virtually all stakeholders in the sustainable-development debate—including governments, international organizations, civil society groups, and private companies—now agree that the business sector needs to play a more meaningful role in the global governance of sustainable development. But defining what would constitute such a "meaningful role" remains a problem. Should we focus on vigiliantly regulating those corporate actions defined by civil-society groups as "unethical" or "irresponsible"—particularly in the petroleum, mining, and other extractive industrial sectors? Or should the stress be on identifying and implementing more effective

models of public-private partnerships, as many governments and private actors argue? Unfortunately, the favored "solution" to the problem varies greatly depending on which aspect of the emerging corporate governance and accountability debate one wishes to emphasize.

The current unilateral orientation of American foreign policy and the continuing political divide between the industrialized and developing countries continue to receive the bulk of media attention. But the real threat to progress at Johannesburg may be the breakdown in global consensus on what role the business sector can and should play in what Crispian Olver, South Africa's Director-General for Environmental Affairs and Tourism, calls the "new global deal" on sustainable development (Lalasz, 2001). This commentary examines how and under what circumstances the private interests of the business sector can be operationalized toward achieving this "global deal" on sustainable development. The commentary first explores how private-sector issues were addressed at the 1992 Rio UN Conference on Development and Environment (UNCED) as well as which of those issues are likely to be discussed ten years later at the Johannesburg Summit. It then analyzes whether the goals of business and sustainable development can be complementary or are fated for collision.

Business & Sustainable Development: From Rio to Johannesburg

Despite an increased private-sector emphasis on environmental issues that had begun in the 1980s, antagonism between the business community and environmental/civil society groups remained strong and heated at the time of the 1992 Rio Summit. This continuing antipathy persuaded Maurice Strong, Rio Summit's secretary-general, to try to stimulate business interest in the UNCED process. Out of these efforts developed The Business Council for Sustainable Development (BCSD), an international group of 50 business leaders. The Council sponsored a number of workshops and released *Change Course*, a book that offered an industrial perspective on global environmental and development issues (Schmidheiny, 1992).

As a result, Rio's Agenda 21 highlighted the importance of "business and industry, including transnational corporations, [in playing] a major role in the social and economic development of a country" (UN, 1992). Agenda 21 also recommended priority

actions to: (a) encourage responsible entrepreneurship; (b) promote clean production systems; and (c) develop a partnership between governments, business, NGOs, and other sectors of society toward the goals of sustainable development. In addition, the BCSD issued its own declaration stressing (a) the relationship between economic growth and environmental protection, (b) the linkages between sustainable development and open-trade policies, and (c) the diffusion of environmentally sound technologies.

Unlike at Rio, however, the business sector is now widely considered a key actor-along with local authorities, women, youth, indigenous peoples, trade unions, and others—in the multi-stakeholder dialogue process leading up to Johannesburg. Indeed, business has been asked to contribute its views to the overall Summit policy agenda during the Summit's lengthy preparatory process. Under the auspices of the International Chamber of Commerce and the WBCSD, different companies and business organizations have banded together for Johannesburg under the theme of the "business case for sustainable development." Sir Mark Moody-Stuart, the former Chairman of the Royal Dutch Shell Group and the head of Business Action for Sustainable Development (a business-sector advocacy group), argues that "our message going into the Earth Summit in 2002 is that business is part of the solution to sustainable development."1

UN Secretary-General Kofi Annan also brought the business sector into the drive for sustainable development with his efforts to develop the Global Compact initiative. Announced by Annan at the 1999 annual meeting of the World Economic Forum in Davos, Switzerland, the Global Compact calls on companies to embrace nine principles in the areas of human rights, labor standards, and the environment. Although voluntary, the Global Compact is designed to provide a new institutional framework from which to build a more inclusive and equitable international marketplace as well as to give, in Annan's words, "a human face to the global market." By the end of 2002, 100 major multinational corporations and 1,000 other companies in different corners of the world are expected to participate in the Global Compact process.²

Competing Visions of Corporate Responsibility

If one of the important goals achieved at Rio was the recognition of the business sector as a legitimate policy actor in global governance, then a major objective at Johannesburg has to be reconciling the differences between the aforementioned competing visions of corporate responsibility. Many individuals and companies in the business community see the creation of a strategic framework for managing environmental and social impacts of business activity as the major contribution the private sector could make to sustainable development. While this framework would remain voluntary, companies would be encouraged to undertake business practices that promote the value of corporate citizenship and go beyond existing regulatory compliance. John Ruggie of Harvard's Kennedy School of Government (and

companies help design and enforce rules that govern their behavior in a wide range of environmental and social settings. For example, much of what passes for regulatory regimes governing the use of the Internet and information and communication technologies—including the Internet Engineering Task Force, W3 Group, and Internet Corporation for Assigned Names and Numbers (ICANN)—is largely nongovernmental in terms of organization and operates outside the traditional state-based regulatory framework. These models of policy stewardship have so rapidly become

A major objective at Johannesburg has to be reconciling the differences between competing visions of corporate responsibility. —Jacob Park

the former chief advisor for strategic planning to UN Secretary-General Kofi Annan) suggests that the Global Compact may be a way to embed global market forces in shared values and institutional practices, and to "weave universal principles into global corporate behavior" (Ruggie, 2001).

But to many civil-society groups,3 initiatives like the Global Compact and the involvement of the business sector in the Johannesburg Summit's multistakeholder process represent nothing more than an intrusion of multinational corporations whose goals are completely at odds with the public interest. CorpWatch, a U.S.-based corporate accountability group, argues that many companies participate in voluntary forums like the Global Compact mostly as a public relations exercise as they systematically ignore the principles of environment, labor, and human rights. NGOs like the Third World Network, Friends of the Earth, Sierra Club, and others want to move beyond voluntary frameworks and focus on developing legally-binding agreements to govern corporate behavior at the international level. Kenny Bruno of CorpWatch argues that "the Johannesburg Summit is framed by the question of whether governments can take action to re-direct corporate behavior in more sustainable directions...Voluntary corporate responsibility, while potentially positive, can become an obstacle when used as a diversion from attempts to hold corporations accountable" (Bruno, 2002).

But the competing visions of corporate responsibility advocated by the business and NGO communities ignore emerging models of "beyond-compliance" policy stewardship. In these models,

critical features of global governance that their effectiveness has not been fully examined. 4

And while many people in the United States and other developed countries take for granted that industrial facilities should at a minimum disclose their levels of pollution releases, a systematic environmental review of industrial facilities would not be possible today without the 1986 Emergency Planning and Community Right-to-Know Act. Developed as a response to the toxic gas leak that killed 2,000 people in Bhopal, India in 1984, this law helped develop a pollution-disclosure system—called the toxic release inventory (TRI) in the United States and the pollutant release and transfer registers (PRTR) in Japan, UK, Mexico, and elsewhere—that is credited with largescale reductions in industrial pollution all over the world. Administered by the U.S. Environmental Protection Agency, the TRI system has helped reduce toxic releases by 46 percent over the past 11 years (Graham & Miller, 2001) and serves as the key information backbone of a wide range of antipollution advocacy networks, including the Environment Defense's Scorecard project.

Because of the growing complexity of managing environmental dilemmas (such as persistent organic pollutants like dioxin and PCBs) in the 21st century, the only effective long-term solution may be one which is (a) economically sustainable, (b) guided by local community input, and (c) adaptable to the constant changes and uncertainties of environmental science and public health. Despite its drawbacks and limitations as a policy tools, TRI has ratcheted up the prevailing standards for transparency and information feedback to community groups that have existed only in

rhetoric in the traditional command-and-control regulatory system. Moreover, the success of TRI in opening up the information gateway has spawned both national and international corporate transparency initiatives like the Global Reporting Initiative, the Corporate Sunshine Working Group, and others. In a post-TRI world, self-regulatory corporate governance mechanisms in which companies help design and implement the solutions is still likely to be the norm. However, these norms are likely to be ineffective (if not outright rejected) without some form of input and assurances from community groups and/or relevant government agencies.

Traditional regulatory regimes in which the state plays a central role in the regulatory life cycle—as advocated by the NGO community—still have a role to play in the global economy. However, the NGO community cannot simply demand that the UN, WTO, or other international organizations monitor corporations and hold the business sector accountable. Corporate accountability and monitoring lies outside the mandate of these international organizations, and no country—particularly the United States—is likely to easily give up its traditional sovereign power to regulate its domestic industries.

The international NGO community also cannot wish away the current situation in which neither government nor civil society is in a position to enact a global sustainable-development agenda without the voluntary cooperation of the private sector. The exploding flows of private capital to emerging economies, coupled with declining official development assistance in the 1990s, illustrate that the public sector cannot by itself shoulder the burden of financing sustainable development or pro-poor economic policies. More than \$125 billion in "new and additional financial resources" (as outlined in Rio Summit's Agenda 21) has gone from industrialized to developing countries—but from private, not public, sources (Gentry & Esty, 1997). The success of agreements made at the UN Conference on Financing for Development in Monterrey, Mexico may depend on public- and private-sector cooperation to ensure that private capital flows can be made complementary

with the goals of sustainable development.

Toward a New Sustainable Development Dividend

Will business engagement produce a sustainable development dividend at Johannesburg? The answer may depend on whether the Summit can properly address three questions. First, can the business community move beyond "profitable green ventures" to support sustainable-development projects that may not meet that community's usual standard of financial returns?

Second, can civil-society groups overcome their traditional mistrust of the private sector and form effective public-private partnerships to further sustainable-development goals? The number of NGOs taking the partnership route and not adhering strictly to the anti-business activist camp is growing. Conservation International's Center for Environmental Leadership in Business, the Pew Center on Global Climate Change's Business Environmental Leadership Council, the Worldwide Fund for Nature's alliances with the private sector in forestry and marine-conservation issues, and even Greenpeace's research and development of environmentally-friendly refrigerators all reflect this important shift.

Third (and arguably most important), can corporate responsibility be realized and the public interest protected in a global economy that gives so much weight to multinational corporations? This is essentially what Save the Children asked when questioning the legitimacy of private-sector representation on the GAVI board. This question, however, is further complicated by the fact that a nearly one-billion-dollar contribution from the Gates Foundation made the GAVI initiative possible. Given that this money comes from a "private" source recycled institutionally in the form of a foundation, does it really make sense to question the legitimacy of privatesector participation? Should Ted Turner be lauded or criticized for giving away one billion dollars to various UN causes? Ironically, Save the Children has an active corporate-support program that specializes, among other activities, in "cause-related marketing." W

Notes

- ¹ A wide assortment of speeches and discussion papers can be found at the Business Action for Sustainable Development Web site: (http://www.basd-action.net)
- ² Background information on the Global Compact can be found at the group's Web site at http://www.unglobal compact.org
- ³ Just as there is not one uniform view of the business sector, one has to be cautious in not attributing one uniform

perspective to the widely divergent NGO community. But this commentary is focused on more activist-oriented groups such as Global Exchange and not the more research and partnership-oriented organizations such as the World Resources Institute, Conservation International, and The Nature Conservancy.

⁴ There are some excellent works on this subject, including: Haufler (2001); Garcia-Johnson (2000); and Gunningham & Grabowsky (1999).

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ENVIRONMENT

THE NEED FOR A BALANCE BETWEEN ENVIRONMENT CONSERVATION AND HUMAN DEVELOPMENT

By Johnstone Odera Tungani

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he major question that should be in the back of every stakeholders' mind for the Johannesburg Summit is: to what extent have the governments and other organizations that participated in Rio adhered to its agenda? And if Rio did not achieve much, can we expect more significant achievements after the Johannesburg Summit?

Johannesburg participants need to seriously consider this issue because of the importance of sustainability to every activity involving environment conservation and human development. Non-adherence to the 1992 Rio resolutions affects developing countries most severely because of their strained economies, wars, famine, drought, susceptibility to natural disaster, and bad governance.

Governments, especially those in developing countries, must seek ways to inform and involve all stakeholders—including the ordinary citizen—in issues concerning human development and

soils along with crop and animal husbandry skills. Unfortunately, the high rate of population growth in the developing world has hindered agriculture by reducing farm sizes, forcing farmers to adopt unsustainable land-use methods. The situation is worsened by poor post-harvest management of farm produce and a preference for exotic rather than indigenous crops (which are more suited to local conditions). Climatic uncertainties have also made farming a risky venture. To improve farming practices, communities need to learn about appropriate and sustainable agricultural technologies and find ways of using non-rain fed agriculture.

Governments, especially those in developing countries, must seek ways to inform and involve all stakeholders beginning at the grassroots level. —Johnstone Odera Tungani

environmental conservation beginning at the grassroots level. These local issues will eventually build up to become global issues. In Kenya, for example, we have the Kenya Nongovernmental Organizations Earth Summit 2002 Forum, where information on environment conservation and human development is collected using a bottom-up approach. Stakeholders (working at community levels) gather information at the grassroots, which is then put together to form district, provincial, and finally national information. This information will be the basis for Kenya's agenda at Johannesburg. Private organizations and nongovernmental organizations (NGOs) ought to work together with governments in this way to ensure sustainable utilization of resources. Sustainable development efforts should also be redirected to marginalized areas in order to ensure balanced growth.

In another workshop held in August 2001, Kenyan NGOs identified seven key issues which developing countries ought to address during the forthcoming Summit. These were: HIV/AIDS; water quality; food security; management of soil fertility; genetic (biodiversity) erosion; loss of indigenous knowledge; and forest management. What follows is a brief look at two of these issues:

Food Security and Nutrition: Food is essential for human survival, and ensuring food supply and providing balanced nutrition requires sustainable agricultural production. Farmers need good seed (propagation material), good water supply, and fertile Forestry: Forests and other vegetation play a major role in environmental conservation and human development. Humans have relied on forests and forest-related products for many needs, including fuel, fruits, food, timber, fodder, shade, and beauty. But high population growth and inadequate forest management policies have led to an alarming rate of forest depletion in some parts of the world. In some countries, forest land has been cleared and developed without care for the impact on the environment. Consumerism has in fact been placed above conservation in many countries.

To address this issue, local communities should be sensitized to the value of natural forests, while governments must reinforce these new attitudes with sound forest management policy. Communities could adopt agro-forestry and social forestry practices to save the natural forests. Eco-tourism could provide an alternative income source for individuals who currently rely on the direct exploitation of forests for their living. Most countries have in place sound extension strategies in their agriculture departments where farmers can access local experts to advise them on appropriate crop/animal husbandry technologies. Similar strategies must be employed in national forestry departments. Experts on sustainable use of our natural forest resources ought to be stationed close to the community level—especially to those communities that live next to critical natural-resource areas and that need guidance on how to harmonize with their environments.

Current levels of population growth, especially in most tropical countries, have led to the need for more land for settlement, agriculture, and other development. One of the options for creating more land has been encroaching on existing forestland. This encroachment might be a quick solution to land shortage, but its sustainability is questionable. For example, forests play a major role in rain catchment, and over 70 percent of the world's agriculture is rainfed. Uncontrolled forest clearing leads to reduced rains with unreliable patterns, resulting in reduced agricultural production. There is a significant correlation between forest destruction and food insecurity.

All deliberations at the Summit must strive to strike a sustainable balance between conservation and consumerism for the nations of the earth. Some of the measures that ought to be taken at the Johannesburg meeting should include:

- Effectively educating people at the community level—especially in developing countries—on technologies that promote sustainable use of our natural resources.
- Halting the destruction of our natural forests and allowing natural regeneration. Instead of encroaching on natural forests, we must put marginal lands to productive use. Communities must also be trained and encouraged to practice agroforestry so that they can have the trees they need on their own farms instead of harvesting them from natural plantations.
- Subsidies and credit facilities should be offered to rural farmers in developing countries, who often are not able to afford most of the inputs for their farming up front. This will boost food production and ensure food security. Rural farmers also need help marketing their produce to avoid waste and exploitation.



INTERNATIONAL ENVIRONMENTAL GOVERNANCE

BRINGING ORDER TO GOVERNANCE OF MULTILATERAL ENVIRONMENTAL AGREEMENTS

By William Krist

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ultilateral Environmental Agreements (MEAs) have accomplished a great deal in recent decades. Examples of notable accomplishments include (a) reducing depletion of the ozone layer, and (b) protecting a number of endangered species and forests. That's the good news. Unfortunately, the bad news is that the MEAs as a whole are not adequately dealing with current global environmental threats.

The Johannesburg Summit gives the world's leaders a chance to strengthen the international structure for sustainable-development governance to better address global problems—including linking environmental processes with social and economic ones. The November 2001 WTO Ministerial Conference in Doha provided both a model and a challenge for this task. Leaders at Doha launched a process to strengthen the trade regime through a "round" of negotiations that will address a number of

issues over the coming three years. The Doha summit set objectives and a negotiating process that allow a broad range of potential tradeoffs to be explored. This model could be copied at Johannesburg to strengthen the MEA system.

Further, Doha set as a goal negotiations on the relationship between the trade rules and the specific trade obligations set out in MEAs. This challenge needs to be met by the environmental community at Johannesburg. How do we strengthen the coherence of the MEA system so that it can be a full partner in the system of international rules and obligations?

The current MEA system is entirely too ad hoc. Some of the roughly 300 MEAs have more members than the WTO, and have clearly-articulated rules and procedures and a track record of proven effectiveness. Others, however, are not well-defined, do not have clear procedures, and have only a few members.

In addition, individual MEAs are headquartered

in many cities, including Toronto, London, Tokyo, Geneva and Nairobi. Some are free-standing agreements; others are linked to United Nations Environmental Programme, the Food and Agricultural Organization, or other bodies. Some have first-class Web sites to provide information on their activities to the public; others do not. And there are no clear-cut definitions to distinguish between MEAs and other agreements that, while dealing with the environment, really only regulate social or economic processes. For

To improve the way the international trade and environmental regimes mesh, the timelines for this environmental governance round should parallel the Doha trade round, which specified a three-year negotiation. While these two negotiations should proceed in parallel and communicate closely with one another, they should not be formally linked since they are separate and each is important in its own right.

The first phase of a Johannesburg environmental governance round should be to clearly define the

How do we strengthen the coherence of the MEA system so that it can be a full partner in the system of international rules and obligations? The Johannesburg Summit needs to meet the challenge posed at Doha.

—William Krist

example, most international fisheries agreements could appropriately be characterized as "commodity" agreements. Only a few seek to manage fisheries in an ecosystem context. As the Worldwatch Institute and The Center for International Environmental Law (CIEL) have written, "the current international environmental regime reflects a lack of coordination, insufficient funding and, in some instances, inadequate authority or mandates. As a result, the international community has realized that a more coherent international environmental framework must be established" (Worldwatch Institute & CIEL, 2002).

To address these problems, some experts have advocated negotiation of a world environmental organization. Regardless of whether this is a good idea or not, there is currently no political will to consider developing such a new entity.

Instead of a grand scheme, what we need are specific incremental steps to improve the governance of this ad hoc MEA structure. Such an incremental process, of course, has been followed by the World Trade Organization (WTO) and its predecessor the GATT in a series of eight "rounds" since creation of the GATT.

The Johannesburg Summit provides a perfect venue to launch a similar "round" to bring more coherence to the MEA structure. As a meeting that gathers heads of state, the Johannesburg Summit can launch a process with timelines and a specific mandate that will encompass all the MEAs. Greater coherence in the MEA system, including strengthened dispute settlement mechanisms and governance, will better enable the environmental system to work with the trade system on a basis of equality.

problems and begin to develop a consensus on the approach to deal with the problems. All interested stakeholders will need to be involved in this effort.

Similar to the Doha trade round, this Johannesburg round must pay particular attention to the problems of developing countries. These countries are the least able to implement their MEA commitments—and yet they are the key battleground in forest and species preservation.

While these negotiations will need to build a comprehensive agenda, following are some ideas of some specific outcomes that could emerge from this process:

1. More action, less reporting. Highly effective MEAs, such as the Montreal Protocol, emphasize capacity-building to help countries comply with their obligations. Tools used by MEAs in capacity-building include: analysis and reporting of a country's situation to the agreement's parties; technical assistance in the form of training and written materials; and financial support to meet the MEAs' requirements.

Currently, however, each MEA does its own thing. Several require their own country reports, which are duplicative in a number of areas. Technical assistance is not coordinated. And many MEAs do not have resources to provide meaningful financial support. While such problems create difficulties for countries like the United States, they cripple the participation of many developing countries. Governments in these countries often have only one official responsible for implementing all its responsibilities for the MEAs to which it is a party.

In short, the current MEA system entails too much

reporting—not enough action. MEAs need to be focused on achieving results that will make a measurable difference in fulfilling their objectives—not on process, which is too often the case today.

Negotiations to strengthen the MEAs with regard to capacity-building might start with an exchange of information among the MEAs on best practices. The negotiations should agree on a single coordinated report from any one developing country that would fulfill the reporting needs of all the MEAs to which that country belongs. The negotiations should also develop a program of coordinated and pooled technical assistance, focused on the needs of that developing country. A fellowship program to train promising individuals from developing countries could also be implemented. And additional funding should be provided, if justified; developed countries, in fact, might be more willing to provide such funding if they knew it would result in maximum bang for the buck.

2. Location, location, location. MEA meetings are scattered over the world, with little thought given to trying to coordinate them so that meetings in a specific subject area—such as species preservation or atmosphere—are held sequentially in the same location. There is absolutely no way that developing countries can attend the meetings that they need to attend under the current structure.

Heads of state and government meeting in Johannesburg have the authority to order that this ad hoc system be ended. These negotiations should lead to a better grouping of relevant MEAs and development of a system for coordination among them. UNEP has been hosting a series of meetings to begin such coordination. The Johannesburg Summit could give this effort muscle and ensure broad participation by the MEAs.

3. An information clearinghouse. Many in the environmental community have argued that the MEA secretariats all be headquartered in the same city. While desirable, this move may not be politically feasible at this time. However, there could be one overall MEA Web site that (a) links to other MEA sites, and (b) contains a place for referencing those MEAs without sites.¹

Information on MEA documents and meetings should all be available on the Internet, comparable to the first-class WTO site. Such transparency is particularly critical for MEAs because these agreements

must be implemented by a broad spectrum of players in member countries.

Special provisions should be given to developing countries. While every country has access to the Internet, the bandwidth of Internet systems in many developing countries is very small, making it extremely difficult to download relevant documents. These countries could be given a satellite dish and computers to enable them to participate electronically in MEA implementation electronically at very low cost. Additionally, key people in the least developed countries—specifically those ministries responsible for implementing MEAs—may need training on using the Internet and information technology.

4. Trade and resource management. This process should work closely with negotiators in the Doha Trade Round. For example, trade negotiators plan to try to eliminate subsidies that contribute to the problem of overfishing. Many others have argued that subsidy elimination would be most effective if implemented with a coordinated plan to better manage the world's fish resources. The environmental community needs to meet challenges such as this one by developing a plan for better managing the world's fish resources; the environmental community also should work with the trade negotiators to identify harmful subsidies.

Similarly, negotiators hope to eliminate trade barriers on goods and services that have a positive environmental impact. Again, the environmental community should be part of identifying such products and services.

In conclusion, the Johannesburg Summit needs to meet the challenge posed by Doha. The ball is in our court. Over the next few years, it is possible to make significant practical moves to bring better coherence to the international environment governance structure. We must take advantage of this opportunity.

NOTE

¹ An excellent, privately maintained Web site (by the Center for International Earth Science Information Network, or CIESIN) provides general information on MEAs as well as texts of the basic treaties. The official Web site proposed here would be for the official papers on meetings, policy developments, and key documents for each MEA, which would be posted in a timely manner.

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UN REFORM IS THE KEY

By W. Bradnee Chambers

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Since the last world summit in 1992 in Rio, environmental issues have all but dropped off the radar screens of politicians. The environment has steadily worsened. Badly-needed global responses to combat serious threats such as climate change and biodiversity loss continue to lack meaningful support of major countries—including the United States. How can we rebuild the kind of support and interest that can revitalize the international response to environmental issues?

Most agree that the key to putting the environment back on political agendas is a successful Johannesburg Summit. These summits, which have taken place since 1972 and attract hundreds of heads of state, business interests, and major media attention, have in the past been important catalysts for the worldwide environmental movement. The last two summits alone were responsible for creating most of today's international environmental treaties as well as Agenda 21, the world's primary blueprint for environmental action. Preparations for Johannesburg unfortunately have started late and as of this writing have failed to pick up the kind of issues that will engage decisionmakers for a positive outcome. The tragic and unforeseen events of September 11 have also impeded preparations and made it difficult to push other global issues when the world's focus is on fighting terrorism.

What is needed to put the Summit back on track is a focus on the key barriers—inadequate financing, poverty, and weak environmental institutions—that have stalled sustainable development and environmental protection. The first two issues are daunting challenges and require tremendous international cooperation and work. Wealthier countries have not come close to meeting their pledge of giving 0.7 percent of GNP to assist developing nations. Poverty alleviation has become intertwined with the complexity of globalization, a phenomenon that continues to widen the gap between the world's rich and the poor. But the third issue—strengthening of environmental institutions—could be a manageable (and politically feasible) outcome for the Summit.

Strong institutions are a precondition for building any kind of international cooperation. Yet global institutions for the environment are perhaps amongst the weakest and most poorly coordinated. In 1945, when the UN Charter was signed, the environment was not a concern. UN organizations and treaties evolved and were created in an impromptu manner out of the necessity to solve environmental issues that had no boundary. More than fifty years later, we have hundreds of institutions working on the environment within a weak and ineffectual global organizational system.

For example, there are over 300 environmental treaties in effect that address highly-interrelated issues in the natural ecosystem—such as water, soil, atmosphere, and forests. But the secretariats of these treaties are spread around the world and cooperate only superficially; and governments implement the

treaties separately at the national level. The United Nations Environment Programme (UNEP), which is supposed to be the premier UN body on the environment, is still not a full-fledged UN agency, and has a smaller budget and staff than many national ministries of environment.

UN regional institutions, which one would expect to be able to work on the ground at a practical level, are also weak. The UN coordinates its environmental action through UN social and economic regional organizations created in the late 1940s—long before the environmental movement began. Take, for example, the Economic and Social and Commission for Asia Pacific (ESCAP), which encompasses over sixty members from Turkey to the Solomon Islands. These country members represent nearly two-thirds of the world's population and have some of the most diverse ecosystems on earth. Yet they are supposed to cooperate under the aegis of ESCAP to address "shared" environmental problems. How are mountainous countries such as Nepal supposed to prioritize their environmental concerns with some the world's lowestlying nation-states, such as Tuvalu? Or how can biodiversity-rich countries such as Malaysia find common environmental priorities with arid and desert countries such as Mongolia? The answer, obviously, is they cannot.

During the Asia Pacific Regional Summit Prepcom in November 2001 in Phnom Penh, this diversity and these difficulties were on full display. Environmental ministers and senior officials from the 61 ESCAP countries were asked at this Prepcom to agree on a regional platform as an input to the Summit. But the countries found little in common, and took three days and two all-night sessions just to agree on a watered-down document that has no real regional flavor or sense of regional priority.

ESCAP, like many of the UN's older organizations, has not been reformed to reflect modern environmental priorities. A far better approach would be to work through sub-regional organizations (such as ASEAN or the South Pacific Regional Environmental Programme—SPREP) that address issues common to a given region. In regions where these types of organizations do not exist, smaller UN organizations could be created that comprise countries sharing common bioregions (such as a major river basin or a mountain system) or flora and fauna. This approach makes much more sense than the current one.

Strong institutions are a key to solving the world's most pressing concerns. But to address modern environmental challenges, we must create better-coordinated and more-effective institutions that (a) reflect in their organizational structure the natural interlinkages between environmental issues, (b) build stronger regional organizations that work on common environmental priorities, and (c) reform and reinforce global organizations such as UNEP.

BEYOND JOHANNESBURG: ADVANCING THE SUSTAINABLE-DEVELOPMENT AGENDA By Pamela S. Chasek

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Per very time the United Nations decides to hold a world conference, summit, or special session of the General Assembly, the international community focuses intensely on the topic at hand—HIV/AIDS, children, social development, human settlements, women, or sustainable development. Then, after months of furious and frantic preparations and the conference itself, the chosen topic tends to disappear from the top of many policymakers' agendas. The challenge, therefore, is ensuring that the issues addressed in Johannesburg remain at or near the top

of international and national agendas.

The latest reports on the state of the environment show alarming findings. Climate change is more dramatic than previously expected. Soil erosion, other land degradation, and forest loss continue at a rapid pace. Many species of plants and wildlife are becoming extinct. And water resources are diminishing in many regions of the world. But sustainable development is not only about the environment. The scourge of hunger and extreme poverty is still a bitter reality for more than a billion people. The gap between rich and poor

has widened. Some countries are completely losing touch with the world economy and are excluded from the benefits of globalization. Ten years after the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro, the world is still confronted with the challenges of endemic poverty, unsustainable lifestyles, and environmental degradation.

As the Secretary-General's report on *Implementing Agenda 21* states:

The outcomes of Rio project a vision of development balanced between humanity's economic and social needs and the capacity of the earth's resources and ecosystems to meet present and future needs. This is a powerful, long-term vision. However, ten years later, despite initiatives by governments, international organizations, business, civil society groups and individuals to achieve sustainable development, progress towards the goals established in Rio has been slower than anticipated and in some respects conditions are worse than they were ten years ago (United Nations, 2001).

How can the international community ensure that we will not be reading the same words in 2012?

The Need for Institutional Reform

Governments can pave the way for greater progress towards the goals established in Rio and Johannesburg through institutional reform at both the international and national levels. Many of the present international system's weaknesses in dealing with sustainabledevelopment issues arise from a compartmentalized institutional approach; and this compartmentalization reflects national decision-making structures and representation in international governing bodies. The result is both overlapping mandates of secretariats and multiple guidelines for operational activities at the national and local levels. Compounding the problem is the complexity of governing structures, differences in membership, and different decision-making processes (United Nations, 2001). Coordination is nearly impossible.

There is also broad recognition that the United Nations Commission on Sustainable Development (CSD), which was established by the General Assembly in 1992 and charged with UNCED follow-up, has not been as successful at pushing the sustainable-development agenda as many had hoped. It does not

have any enforcement powers; it lacks true coordination capacity across the UN system; and it has not been able to attract attention from ministries other than environmental.

As a result, the preparatory committee for the Summit is discussing the concept of "sustainable development governance." Delegates are currently debating just how to strengthen the intergovernmental process in the United Nations system for the coordination of sustainable-development work and implementation of Agenda 21. A number of different proposals have emerged, including:

- Further integrating the three pillars of sustainable development (environmental, economic, and social) into the work of the UN Regional Economic Commissions, which could effectively transform themselves into regional sustainable-development commissions (UN, 2001).
- Strengthening the *UN Economic and Social Council* so that it can play a role as a global strategic forum for social, economic, and environmental issues. The Council should have the capacity to bring together governments, the UN system, and representatives of civil society and the private sector to address issues of sustainable development from an integrated perspective (Eid, 2001).
- Enhancing and strengthening the *United Nations Environment Programme* while simultaneously enhancing the economic, social, and developmental capacities of other UN institutions and the UN overall. Such enhancements will require a corresponding *strengthening of the capacity and role of the CSD* so that it can better perform its integrative function (Third World Network, 2001).
- Making the CSD either (a) a subsidiary body of the General Assembly instead of a subsidiary body of the United Nations Economic and Social Council (ECOSOC), or (b) an "Earth Council" that would report directly to the General Assembly.

Regardless of the outcome in Johannesburg, it is important to remember that any intergovernmental organization is only as strong as its member governments want it to be. When governments created the CSD, they purposely kept the organization weak (i.e., a subsidiary body of ECOSOC) so that they would not be creating a monster that would force Agenda 21 implementation. Are governments ready to strengthen the CSD and give it or its replacement body the ability to monitor and assess progress toward such

implementation? Are governments ready to allow the use of sustainable-development indicators? Progress in these areas at the Summit would demonstrate a true commitment to sustainable development.

Nations Matter, Too

International-level commitments such as the ones proposed above must also be met by similar commitments at the national level. Representatives of nongovernmental organizations from both developed and developing countries complain about the lack of national action to integrate the three pillars of sustainable development. Each year there are criticisms that the CSD attracts only environment ministers—not ministers of finance, agriculture, fisheries, development, or energy. While the nature and working methods of the Commission may be at fault, national governments must share in the blame.

governments are National sectoral or compartmentalized by nature. In many cases, the weaknesses in intergovernmental bodies such as the CSD reflect the lack of coordination between national ministries. In the cases of developing countries, these weaknesses reflect a lack of capacity in the areas of national-policy analysis, design, and management. Most developing countries have a "hollow negotiating mandate," whereby lack of capacity and understanding of complex issues handicaps negotiators and forces them to fall back on making general statements and rhetorical remarks (Gupta, 1997, p. 133). Many developing countries also come to meetings of intergovernmental bodies without substantive national positions because (a) the issues under negotiation at the international level have not captured their public's popular imagination, (b) officials have not considered

the issue between sessions, or (c) the issue is not considered a priority by the countries' ministries of foreign affairs. In some cases, developing countries do not even have the human and financial resources to send a delegation at all.

Ministries of foreign affairs are responsible for most of the work at the UN in New York, and their officials dominate the New York missions. Sustainable-development issues are not a priority in these ministries. Among developing countries, only six have even a full-time official at their mission to deal with sustainable development.

But the cross-sectoral nature of sustainable development demands such coordination. Therefore, another positive outcome from Johannesburg would be a series of proactive recommendations for national governments that would encourage greater "pollination" between those ministries responsible for the implementation of Agenda 21 at the national and local levels. Strengthening coherence and consistency at the national level will both advance the sustainable-development agenda and strengthen its governance internationally.

The success or failure of the Summit rests on the political will of governments. If governments are truly committed to integrating environment and development, they must make important structural changes to both international and national governance. These changes will not take place overnight. But the mechanisms for institutional reform must be put in place at Johannesburg if there is any hope of making real progress on sustainable development before yet another international conference reviews the implementation of Agenda 21.

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THE FUTURE OF INTERNATIONAL ENVIRONMENTAL GOVERNANCE

By Bharat H. Desai

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he UN system is now gearing up for another major global conference at the Johannesburg Summit. In addition to taking stock of the progress during the ten years since the UN Conference on Environment and Development at Rio, the Summit is also expected to take concrete action towards an institutional architecture for international environmental governance (IEG).

Analysts and policymakers now recognize the need for a centralized environmental authority that can provide overarching guidance to national governments. But although a wide variety of views prevail on the issue of IEG, no ideal model yet exists. Several elements—such as the political confidence of the states, effectiveness of the institutional mandate, and reliable funding—will ultimately hold the key to the emergence of a concrete blueprint.

After a year of tortuous negotiations, an official intergovernmental forum, referred to as an "Openended Intergovernmental Group of Ministers or their Representatives on International Environmental Governance" (IGM), concluded its final meeting in Cartegena in February. The United Nations Environment Programme's Governing Council (UNEP GC) established the forum to conduct a comprehensive assessment of: (a) weaknesses in existing environmental governance; and (b) future needs and options for strengthened international environmental governance, including UNEP financing (UNEP GC, 2001).

This intergovernmental initiative is the most important to date on the future of IEG. Along with the annual Global Ministerial Environment Forum (GMEF), it represents a bold step towards reviving the sagging fortunes of UNEP and regaining environmental policy coherence in the wake of fragmentation and a multiplicity of institutions. The UN General Assembly (in Resolution 53/242) has also endorsed proposals to establish an Environmental Management Group (EMG) to enhance UN-wide interagency coordination on issues in the field of environment and human settlements (UN GA, 1999). In addition, the IGM process has also focused attention

on the linkage, synergy, and coordination among multilateral environmental agreements (MEAs).

Issues of overlapping jurisdiction, waste of resources, and turf wars have marred the performance of many of the existing institutional structures and have in particular reduced UNEP's effectiveness. Thus, a central task of GMEF was to provide an action plan to revitalize UNEP as the global environmental authority. But as various international institutions have entered the environmental scene, UNEP's authority to set the global environmental agenda has diminished.

The three GMEF sessions since May 2000 have set the agenda for Johannesburg concerning IEG. A broad range of proposals from these sessions has included these specific options: (a) a new mandate to the UN Trusteeship Council on environment protection and global commons; (b) enhancing UNEP's status from a program to a "specialized agency"—in effect, making it a new world environmental organization; and (c) continuation of the existing UNEP with secure and predictable funding as well as proper coordination of MEAs (UNEP & IGM, 2001). In a way, the recommendations of the IGM process have already set the tone for realizing a greatly-strengthened environmental institutional structure.

Several developed countries (such as France and Germany) have voiced their support for a new environmental organization. In the course of the final deliberations in Cartegena, however, several other states (including the United States, Russia, and China) have expressed reservations about this proposal or even the conversion of UNEP into a specialized agency. But such an enhanced status would bring UNEP (a) greater institutional standing within the UN system as a global environmental authority, and (b) an assured funding base through the UN scale of assessment tied to realistic budget estimates. UNEP is the environmental conscience of the UN, and it has proven its worth (in spite of several handicaps and organizational problems) in the past 30 years. States need to place their political confidence in it.

Keeping in mind the nature of intergovernmental

deliberations so far, one does not expect dramatic results to emerge at Johannesburg. Still, it would be an achievement if the states gathered at the Summit seriously considered strengthening UNEP-taking into account its competences in international environmental lawmaking processes as well as in the assessment, monitoring, and collection of scientific data on the global environment. (The GC/GMEF could then formalize UNEP's enhanced status after

Johannesburg.) The states at the Summit should also reaffirm UNEP's location in Nairobi, which hosts the only major UN institution in the developing world. The task is large, and the process will be evolutionary. As such, the future direction of international environmental governance will be dictated by the political will of the states and by how willing they are to translate their international environmental commitments into action.

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For more information about *Finding the Source*, see the summary of the rollout meeting in this issue of *ECSP Report* or visit the ECSP Web site at http://ecsp.si.edu/population-water.htm. To request a copy, please email ecspwwic@wwic.si.edu.



CHINA ENVIRONMENT SERIES: ISSUE 5

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