

**United States Agency for International Development
Bureau for Global Programs, Field Support, and Research
Center for Environment**

**Strategic Plan
of the
Center for Environment**

March 23, 1995

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EXECUTIVE SUMMARY

A. MANDATE

The mandate of the Global Bureau's Center for Environment (the "Environment Center") is to provide technical and programmatic leadership and support to the U.S. Agency for International Development (USAID or the "Agency"), its country programs, and its domestic and international development partners in addressing global environment and sustainable development problems.

The Environment Center accomplishes this charge by providing: (1) support to USAID country programs, central bureaus, and regional bureaus, (2) direction for USAID global environmental initiatives, (3) and international technical leadership on environmental issues. Recognizing the presence of substantial knowledge on environmental matters throughout the Agency and the cross-cutting nature of environmental issues, the Environment Center works closely and collaboratively with the Agency's other units.

The Environment Center pays particular attention to strengthening local economic, political, and social capacity so that developing countries and their citizens can take responsibility for their own well-being. In helping developing countries take effective national and local environmental action, the Center maximizes efforts to (1) empower indigenous non-governmental organizations, (2) encourage broad-based economic growth by buttressing small business organizations and institutions at the grassroots level, and (3) strengthen local governance through partnerships with United States public and private institutions. It pays special attention to the role of women, their participation in environmental issues and programs, and their empowerment.

1. Technical Support

The Environment Center's primary function is to support the environmentally-related efforts of USAID's country programs, either directly or through regional bureaus and regional field offices. By technical support we mean technical assistance, information, and training in the conceptualization, design, programming, implementation, monitoring, and evaluation of the Agency's environmental activities. The Environment Center will strive to meet all reasonable requests from its clients for technical support in any environmental subject area. It will create and maintain mechanisms for accessing

the United States's best technical expertise. Lastly, the Center will also serve as a clearing house for USAID clients on the latest information and appropriate research results related to environmental technologies and management approaches.

2. Technical Leadership

The Environment Center is charged with technical leadership within the Agency and among our development assistance partners around the world. We define that charge under the following headings.

Technical Focus for the Agency: As the focal point for USAID environmental activities, the Center strives to provide comprehensive and effective technical leadership in focused set of technical areas:

-  Biodiversity conservation
-  Combatting global climate change
-  Management of water resources and coastal ecosystems
-  Sustainable urban development
-  Environmentally sound production and use of energy
-  Environmental technology development
-  Environmental policy, planning, and institutional strengthening

Global and National Problem Identification, Analysis and Planning: The Environment Center will identify and analyze critical environmental problems and the constraints to their resolution. The Center will prepare Agency-wide plans in specific environmental areas such as global climate change and biodiversity.

Address Global Issues: The Environment Center has lead responsibility for USAID's global environmental initiatives. The Center may directly manage activities responding to global initiatives in countries with no, or minimal, USAID field presence. The Center will provide advice on global environmental issues to the Agency, the Department of State, and other United States Government agencies. It will help to determine priorities and design the programs necessary for the Agency to achieve its global environmental goals, including focusing resources on key countries.

Quality Control: The Environment Center will help ensure consistent excellence in the technical capabilities and interventions of the Agency. In its capacity as advisor to the Agency and the field missions, the Center will guide the direction of USAID's current and future environmental programs. It will collect, assess, and report on the performance of USAID on environmental matters and suggest and monitor steps to

improve performance.

Career Development: It is the Agency's intent that all its environment staff come to perceive the Environment Center as their home base. Additionally, the Environment Center will provide assistance for the professional development of the Agency's environmental staff by advising on recruitment, training, assignment, and career development of technical officers, RSSAs, and IPAs.

Technical Innovation: The Environment Center will help the Agency and its field missions to obtain, understand, synthesize, and transfer the appropriate knowledge from technical and scientific research to developing countries and their local institutions to solve specific environmental problems. The Center will work with other agencies to design long-term strategic research and short-term operational research agendas and assure that information is relevant, timely, and accessible to Agency managers and decision-makers. Its research program will encompass both ecological and social sciences and will be integrated, issue-oriented, and problem-solving. The focus will be on increasing the availability of the large body of existing research knowledge to interested development partners and decision makers.

B. STRATEGIC FRAMEWORK

As set forth in its Strategies for Sustainable Development, USAID has five basic strategies and, among others, two environment goals that guide the planning and programming of its bureaus and country programs. Given its dual mandate of leadership and support, the Center views its strategic objectives as a responsibility shared with the Agency's regional bureaus and country programs (see Figure 1). While the Center will take responsibility for the accomplishment of the shared strategic objectives under its leadership charge, we fully recognize that these objectives can be accomplished only by the coordinated action of many different operating units within the Agency.

FIGURE 1: USAID SUSTAINABLE DEVELOPMENT STRATEGIES AND ENVIRONMENT GOALS, AND ENVIRONMENT CENTER STRATEGIC OBJECTIVES SHARED WITH OTHER USAID UNITS

USAID BASIC STRATEGIES				
Protecting the environment.	Building democracy.	Stabilizing world population growth and protecting human health.	Encouraging broad-based economic growth.	Providing humanitarian assistance and aiding post-crisis transitions.

USAID ENVIRONMENTAL STRATEGIC GOALS	
Reducing long-term threats to the global environment, particularly loss of biological diversity and climate change.	Promoting sustainable economic growth locally, nationally, and regionally by addressing environmental, economic, and development practices that impede development and are unsustainable.

USAID ENVIRONMENT CENTER STRATEGIC OBJECTIVES (SHARED WITH OTHER USAID UNITS)		
Increased and improved protection and sustainable use of natural resources, principally forests, biodiversity, and freshwater and coastal ecosystems.	More sustainable cities, including reduced pollution and more environmentally sound urbanization.	Increased environmentally sound energy production and use (encompassing energy efficiency, renewable energy, non-renewable energy resources, and environmental technology).

INTRODUCTION

In response to the Government Performance and Results Act of 1993 and the National Performance Review, USAID requires that each of its operating units prepare and adopt a Strategic Plan by April 1995. The purposes of these strategic plans are to:

-  provide a vehicle for making program choices;
-  focus the Agency's assistance efforts so as to achieve tangible development results; and
-  establish a planning framework for allocating Agency resources and for monitoring the progress and effectiveness of program results.

The shared strategic objectives, programmatic approaches, and program outcomes in this document set the Center's priorities. Performance indicators and targets provide quantitative measures against which the Agency can judge the results of the Center's actions.

This strategic plan begins with an overview of the Environment Center's mandate and strategic planning framework. Part I presents a summary of international environmental problems and development issues of concern to USAID and the Environment Center. Part II sets forth the Center's proposed strategic objectives, programmatic approaches, and program outcomes. Part III (a separate document) presents the Center's resources and their allocation across the Center's objectives and outcomes.

PART I: SUMMARY ANALYSIS OF THE ASSISTANCE ENVIRONMENT

Sustainable development depends on a sustainable relationship between human activities and natural and environmental resources. Clean air and water, productive land, renewable and non-renewable energy, timber, and fiber, and, ultimately, a healthy life are at once products of sustainable development and critical elements in its attainment.

A. SIGNIFICANT ENVIRONMENTAL TRENDS

THE CHALLENGE

Environmental degradation poses a growing threat to the physical health and economic and social well-being of people throughout the world, and the specific environmental problems we will face almost always will be the result of human action or inaction. Environmental problems are complex, with uncertainties at almost every level of analysis. Although they may be difficult to detect in early stages, they may grow exponentially. Thus, they are potentially capable of massive damage in short periods of time. Environmental problems may be expensive to avoid or solve even if addressed in early stages -- when costs of mitigation or avoidance may be most difficult to justify economically and politically, and the benefits of avoidance or mitigation may be very difficult to quantify.

The social stability and economic well-being of a nation depends on its access to adequate supplies of natural resources and on that nation's ability to manage these resources so as to enhance the well-being of future generations.

Natural resources provide not only the fuel for our vehicles, but also the "fuel" for our social and economic systems. Our future is inextricably tied to, and in large degree determined by, our relationship to the world's natural resources. What we eat and wear, our modes of travel, our health, and our ability to maintain an adequate industrial base and, ultimately, to ensure a more peaceful world, will be directly affected by the manner in which we manage, use, conserve, and protect the environment and natural resources of the world.

The global environmental challenges of climate change and loss of biodiversity, combined with the consequences of the world's burgeoning urbanization and local environmental mismanagement, e.g., increased poverty, diminished wealth, social instability, and resource-based conflict, pose real threats to America's own economic and political interests in the 1990s and beyond. For example, accelerating losses of highly diverse tropical forests in countries such as Brazil and Indonesia contribute to future likelihood of major climate change with unknown consequences for the United States at home. Simultaneously, the current multi-billion dollar pharmaceutical industry loses potentially valuable biochemical sources, and the United States loses future options in biotechnology industries before they are even fully understood. Ozone layer depletion through the release of contaminants into the atmosphere immediately increases skin cancer risks, while posing potential additional threats in the future that still are not yet fully understood. "Megacities" in many developing countries present not only positive opportunities for economic and social growth but also the possibility of enormous environmental problems, including insufficient access to clean water, clean air, and sanitation, particularly for the urban poor.

KEY ENVIRONMENTAL PROBLEMS

Many environmental problems are the consequences of phenomena over which the Environment Center has little direct control, e.g., high rates of population growth, inadequate macro-economic policies, lack of political will and of a managerial ethic. Many constraints to effective problem solution are primarily political and institutional, rather than technical. That said, the Environment Center has identified the following seven key environmental problems as the appropriate focus of its technical support and leadership activities:

1. Loss of Biodiversity

The world's biodiversity is disappearing at an alarming rate. In developing countries, burgeoning human populations flow into urban, upland, coastal, and forest areas. Much of the world's biodiversity is concentrated in the terrestrial and aquatic biomes of the tropics, precisely where the problems of human migration, increasing population, and the inequitable distribution of resources are most intense. Unique species and ecosystems are threatened throughout the world. Humankind must recognize the broad range of needs for global conservation programs, the intrinsic value of biodiversity, and the right for non-human species to exist.

The earth's biodiversity at the genetic, species, and ecosystem levels forms the foundation for our quality of life. Our food supplies, our defenses against diseases, and many products on which humankind relies stem from wild populations and species. The diverse genetic reserves in wild relatives of our domesticated plants and

animals ensure the continued ability to modify resources in response to changing conditions. The diversity of the world's ecosystems and wild areas also impact on our aesthetic quality of life in ways that we are only now developing techniques to measure. By maintaining a world rich in biodiversity, we keep open our options for a sustainable future for all humankind.

2. Global Climate Change

The consensus of international experts is that rapid climate change -- induced by increasing concentrations of carbon dioxide and other greenhouse gases arising from human activities -- presents a long-term threat to the global environment. Although uncertainties surround the timing, magnitude, and impacts of such change, it has been estimated that by the end of the next century the global mean temperature could rise by 1.5 to 4.5 °C. Carbon dioxide emissions are the largest contributor to global climate change, accounting for 55 percent of the estimated climate change problem. Other major greenhouse gases (and their estimated contribution) are chlorofluorocarbons (24 percent), methane (15 percent), and nitrous oxide (6 percent).

Substantial global climate change will seriously jeopardize the social and economic well-being of the world's population. It would redistribute precipitation causing unprecedented droughts and flooding, reduce agricultural productivity, cause water supply shortages, and degrade forest and agricultural lands. This would engender substantial population displacement and migration, especially for island and coastal communities. Natural terrestrial and aquatic ecosystems will also be altered, resulting in loss of biological diversity and degradation of forests and fisheries.

Although the developed countries currently contribute the majority of the greenhouse gas emissions, the economic growth in the developing and post-communist countries will likely reverse this situation within the next 30 years. The major focus of USAID's attention is the activities of men and women that cause adverse impacts on the Earth's climate and how to involve both in potential solutions.

The major sources of greenhouse gases generated by human activities, and their percentage contribution are:

-  Energy use (primarily fossil fuel burning) - 46 percent,
-  Deforestation - 18 percent, and
-  Agriculture - 9 percent.

3. Water Resources Depletion

Twenty-six countries, mostly in Africa and the Middle East, are considered to be water-scarce, i.e., the lack of water becomes a severe constraint to food production, economic development, and protection of natural systems. In these and many other countries (particularly in urban areas), a related problem is not scarcity per se, but a lack of potable water with very serious consequences on health.

Over 1.5 billion people in developing countries lack access to clean water for drinking, cooking, and washing. Only 74 percent of urban dwellers and 51 percent of rural dwellers worldwide are connected to sewer systems. In 1993, more than four million children worldwide died as a direct result of water-borne diseases stemming from unsanitary drinking and bathing water.

Pollution in coastal environments and overfishing of marine fish stocks are contributing to a decline in fish catches, the largest source of protein for one-fifth of the world's population. Symptomatic of the unchecked destruction of coastal habitats (the reproductive home of 90 percent of the world's marine fish catch) is the fact that more than 50 percent of the coastal mangrove swamps of Latin America have been converted to other uses or degraded. The world's fisheries, at the current annual harvest of 100 million tons, have been nearly fully exploited.

4. Poorly Managed Urbanization and Urban and Industrial Pollution

The world in which USAID works today is increasingly urban. About 50 percent of the families in developing countries currently reside in cities and towns. The number of "megacities" urban areas with populations of more than ten million will quadruple from six in 1989 to over 24 by the year 2000, mostly in developing countries. One-third of the world's population now crowds onto lands within 60 kilometers of the coastline. Also, industrial and commercial enterprises concentrate in urban areas, accounting for about 80 percent of gross domestic product growth in developing countries.

Squatter settlements in and around cities in many developing countries may be growing twice as fast as the cities themselves. The benefits of job creation, raised incomes, and increased productivity associated with urbanization and industrial development are increasingly offset by the high costs of urban environmental problems.

Poorly managed urbanization and industrialization pose enormous environmental problems, especially for the urban poor. The inability to provide clean drinking water and the deadly consequences are mentioned above. Environmental infrastructure is also woefully unable to hygienically treat household liquid and solid wastes, much less minimize or treat hazardous and toxic industrial wastes. Inadequate

opportunities for both women and men to participate in urban governance restrict local involvement in, and commitment to, improved urban decision making.

Environmental hazards caused by poorly managed urbanization and industrialization in developing countries endangers the health and productivity of the urban poor, especially populations at risk such as pregnant and lactating women and children. Airborne particulate readings in the developing world are often ten times higher than peak levels allowable in the United States. The developing world urgently needs pollution prevention (rather than control) technology and equipment, training, and industrial policy and regulatory reform.

5. Energy Shortages and Adverse Environmental Impacts

Dependable and environmentally sound energy supplies are essential for the sustainable development of modern agriculture, industry, commerce, health services, transportation, telecommunications, heating and cooling, cooking, and lighting. A direct correlation exists between rising standards of living and the increased use of modern forms of energy. Power shortages are common in over 50 percent of USAID-assisted countries, retarding economic growth by as much as \$1 lost in gross domestic product for every 1 kilowatt hour not produced. Almost 2.5 billion people—primarily rural dwellers and the urban poor—have little or no access to commercial energy services. This is a particular problem for women in households who spend a significant portion of their time and income on fuel for domestic subsistence and home-based microenterprises.

Energy production and its use are also major causes of environmental degradation. Mining, drilling, and transportation of energy resources can have calamitous environmental impacts, especially in developing countries that lack effective environmental monitoring and enforcement. Fossil fuel combustion—especially of coal, upon which over half of the developing world's population depends for energy—releases 5 to 7 billion tons of carbon per year into the atmosphere. Such combustion is a major source of greenhouse gases at the global level, as well as of lung-damaging particulates and sulphur oxides at the local level. Additionally, the use of leaded gasoline and diesel fuel in urban areas is a major contributor to respiratory disease and learning disabilities in children.

6. Lack of Appropriate Environmental Technologies

Technologies can have profound impacts on the environment, both positive and negative. As the engine of economic growth, technology has been responsible for as much as two-thirds of the increase in the United States' productivity since the Depression. In addition, technology helped bring about the Green Revolution, which

resulted in increased agricultural productivity in the developing world.

A Definition of Environmental Technology

The Environment Center defines environmental technology as the body of knowledge, equipment, and software employed in pollution and waste control, prevention, and management from municipal, industrial, and agricultural sources. Environmental technology advances sustainable development by reducing risk, enhancing cost effectiveness, improving process efficiency, and creating products and processes that are environmentally beneficial or benign.

Lack of access to clean water, urban air pollution problems, soil erosion and depletion, emissions of global climate change gases, and combustion-related pollution are described above. The challenge is to use technology in such a way that short term advances in productivity do not occur at the expense of long term resource viability, in other words, that offers a win-win opportunity for our nation and the world as a whole. The technical skills, expertise and equipment of the United States environment and energy industries can stimulate private sector growth in developing countries through investments and joint ventures while transferring environmentally beneficial technology, and increasing United States exports. Economic growth through the development and diffusion of environmental technology will result in more jobs, and a clean environment will mean a higher standard of living for ourselves and the generations that follow.

7. Deficient Policy, Planning, and Regulatory Frameworks

Many, if not all, of the above problems stem from insufficient, poorly conceived, or non-existent government policies. For environmental improvement in developing countries (or anywhere) to be sustainable, basic environmental policies and regulatory frameworks must be in place. These should assign clear jurisdiction and responsibility, encourage market-oriented and incentive-driven solutions, and provide sufficient resources. Otherwise, problem resolution is unlikely, irrespective of the technical, technological, human, and financial resources available. Once in operation, the success of environmental policies very much depends on the strength of the public, non-governmental, and private institutions involved. Often governments lack training programs, management and technology information, and competent personnel, equipment, and funding to identify, analyze, and implement policy reform.

USAID projects in these areas help it gain access to host country, domestic, and international institutions that shape or influence environmental activities in developing countries  some of which may not have a USAID field presence. There is now a need

to: (a) structure existing and planned environment policy projects to maximize access to local and international institutions, including those in the private sector, which influence environmental policy, (b) analyze alternative management systems for providing USAID, other public agencies, and private institutions with cost-effective policy expertise, and (c) analyze and reduce possible redundancy and overlap between current programs, primarily within the Environment Center, but also elsewhere in the Agency.

B. OVERALL DEVELOPMENT PROSPECTS AND OPPORTUNITIES

USAID recognizes that it cannot solve all environmental problems. It must use its limited resources more efficiently than ever before and target its interventions strategically. It is most effective when it focuses on helping establish the necessary conditions that will enable developing countries to resolve their own problems, and on leveraging the resources of other donors and the private sector for sustainable development.

The overall prospect for environmental improvement is good, but the timing of interventions is critical. Investments in the next five years will have geometrically greater impact than investments delayed beyond that time. Many nations are at a turning point in developing the components of sustainable development. Failure to take advantage of opportunities now will require substantially increased expenditures in the future.

Four forces are at work: an increasing domestic and international understanding of environmental problems and commitment to their solution; rapid improvement in the technologies and systems to cope with environmental problems; the increasing role of multilateral development bank, non-governmental, and private sector resources; and increasing democratization.

1. Increased Domestic Understanding and Commitment

United States national leaders, non-governmental organizations, and citizens of all ages and persuasions increasingly recognize that environmental improvement must be given substantially higher priority than in the past. Attitudes in this area have changed considerably in recent decades. What was once seen as an aesthetic interest held by a relatively few nature lovers is today a widely held recognition that protecting and sustaining our country's and the world's natural heritage are concerns of earth-shaking significance.

2. Increased International Understanding and Commitment

Following the Stockholm United Nations Conference on the Environment in 1972, both developed and developing nations substantially increased their policy and resource commitments to improve the environment. Although not yet sufficient for the task, these commitments have steadily increased, as evidenced by the United Nations Conference on Environment and Development in 1992 (the Rio Earth Summit). The United Nations Framework Convention on Climate Change and the United Nations Convention of Biological Diversity are only two recent examples of this expanding commitment.

3. Improved Environmental Technologies and Practices

Significant progress has also occurred in improving the environmental technology and practices needed to cope with pollution in a cost-effective manner. The diffusion of environmental technology throughout the developing world is accelerating, especially in the industrial, urban, and energy sectors. Rehabilitating and replacing environmentally unsound fossil-fueled power plants and improving energy efficiency in transportation will contribute significantly to reducing local and global environmental impacts. Improved management of rapidly growing cities throughout the developing world will not only reduce environmental problems, but will also increase substantially the development prospects for many low-income families and communities.

4. Increased Resources for Environmental Improvement

Another hopeful development is the increasing investment by the multilateral development banks, international financial institutions, the international private sector, and developing country governments in environmental conservation and use. For instance in 1994, the World Bank approved \$2.4 billion for environmental projects, while regional multilateral development banks and the Global Environmental Facility authorized another \$2 billion for this purpose. Driven by lack of internal public investment funds and the poor performance of state-owned enterprises, more and more countries are looking to introduce market forces into formerly government-controlled environmental and energy sectors. This trend toward privatization and private investment reflects increasing awareness by national leaders that the cost of a clean environment cannot, and should not, be borne solely by the public sector.

5. Increased Democratization

The democratic transitions of the last few years have created the possibility of a more peaceful, more rational, and more productive world. Democratization is an essential part of sustainable development because it facilitates the protection of human rights,

informed participation, increased opportunities for women, and public sector accountability. With increased democracy comes greater local and private involvement in the solution of development problems. Democracy's freedoms permit the formation of a wide range of non-governmental organizations that stimulate innovation in the provision of services, confront corruption, advocate respect for the human and natural environment, and promote and defend democratic processes and institutions.

C. DEVELOPMENT CONSTRAINTS

Each of the following constraints is an impediment toward sustainable solutions to environmental problems. But these constraints should also be viewed as opportunities since they help define the areas where USAID's development assistance might be most productively deployed.

1. Lack of Appropriate Policies and Regulations

As mentioned in the key problems section above, many nations still have not made commitments to appropriate basic environmental policies and regulatory frameworks. In many instances the parochial interests of politically powerful constituencies have resulted in policies which, while financially advantageous to them, are environmentally destructive. Even where change in the right direction has taken place, further reform is often needed to protect and conserve environmental resources and to resolve disputes between parties competing to use scarce resources.

2. Lack of Strong Public and Private Institutions

The lack of well-trained and experienced personnel and other limited resources result in weaknesses in planning, analysis, implementation, monitoring, and enforcement of policies and regulations. While sound legal and regulatory frameworks often exist for environmental protection, the responsible institutions are often woefully unable to fulfill their mandates due to inadequate staff and budget.

3. Lack of Sufficient Public Awareness and Support

Despite the progress mentioned in Section B above, many people are still often inadequately aware of environmental issues, such as the importance of biodiversity conservation or the relationship of clean water supply and improved sanitation to increased employment and household income. In certain countries, action is often constrained because environmental issues lack a developed constituency.

4. Inadequate Consideration of Gender Issues in Development

Environmentally-sound development is unlikely to be sustainable without differentiating impacts and influences of women and men. Lack of access to resources, institutions, and decision making constrain women's involvement in environmental solutions. Without gender disaggregation of certain assistance, men may capture the majority of benefits and in some cases women may be relatively worse off than before the assistance.

5. Short-Term versus Long-Term Perspectives

Commitments to long-range environmental goals are crowded off national agendas in favor of more immediate objectives. However, failure to address long-term problems undermines the ability to meet current, and increasingly, future basic human needs.

6. Lack of Resources and Investment Incentives

A universally recognized constraint is the lack and inefficient use of financial and human resources and investment capital, from both internal and external sources, to cope with environmental, urbanization, and energy problems. There is also a lack of local incentives to make investments in environmental improvements.

7. Inadequate Coordination and Collaboration by Development Assistance Institutions

Multilateral and bilateral donors and private, non-governmental development institutions need to coordinate their efforts more closely. Given the enormous resources needed for environmental improvement, collaboration between donors and other public, non-governmental, and private development assistance institutions is essential. USAID cannot, by itself, solve the environmental problems facing the developing world.

8. Uncertainty of Scientific Information and Appropriate Utilization of Environmental Knowledge

The uncertainty surrounding our scientific understanding of some environmental problems, for example the impacts of global climate change, adds another degree of difficulty to resolving environmental issues. The impact of environmental pollution on human health and natural resource viability is still questioned in many quarters. Additional efforts are needed to make existing environmental research and knowledge available to developing country governmental and private institutions who need it to improve decision making.

D. COLLABORATIVE RELATIONSHIPS

In addressing environmental problems, the Environment Center collaborates with numerous other development assistance organizations from both the public and private sector in seeking to maximize the impact of its limited development resources. The Center provides technical support to international forums on development and environment. It works at regional and national levels with local governments and non-governmental organizations (e.g., the National Environmental Action Plan process) and at the local level with grassroots organizations and small entrepreneurs.

USAID also supports and participates in a wide variety of United States governmental and international programs in the environmental, urban, and energy areas. The Environment Center has been actively involved with most of the following and has

considered the plans and programs of these activities in the preparation of this document.

Natural Resources Management and Biodiversity Conservation:

- ✎ United Nations Convention of Biological Diversity,
- ✎ International Cooperative Biodiversity Groups Program (with National Institutes of Health and the National Science Foundation),
- ✎ Consultative Group on Biodiversity (with private foundations),
- ✎ United Nations Convention on International Trade in Endangered Species,
- ✎ Rio Declaration on Environment and Development,
- ✎ Consultative Group on International Agricultural Research,
- ✎ International Union for Conservation of Nature and Natural Resources,
- ✎ International Coral Reef Initiative, and
- ✎ International Tropical Timber Agreement, and
- ✎ Global Environment Facility.

Sustainable Urbanization and Industrial Pollution Abatement

- ✎ United Nations Center for Human Settlements (with Habitat),
- ✎ International Council for Local Government Initiatives,
- ✎ Urban Management Programme (with Habitat and the World Bank),
- ✎ Metropolitan Environmental Improvement Program (with World Bank),
- ✎ Sustainable Cities Programme (with Habitat),
- ✎ National Centers for Industrial Environment Management (with United Nations Industrial Development Organization), and
- ✎ International Cleaner Production Information Clearinghouse (with United Nations Environment Program).

Environmentally Sound Energy

- ✎ International Fund for Renewable Energy and Efficiency (with United States Export Council for Renewable Energy),
- ✎ Committee for Renewable Energy, Commerce, and Trade,
- ✎ Energy for Sustainable Development Initiative (with United States Energy Association and World Energy Council),
- ✎ Green Lights Program (with United States Environmental Protection Agency and United States Environmental Training Institute),
- ✎ Clean Coal and Energy Efficiency Program (with United States Department of Energy).
- ✎ United States Country Studies Program,

- ✎ United States Initiative on Joint Implementation [of Global Climate Change activities],
- ✎ Global Environment Facility, and
- ✎ Intergovernmental Panel on Climate Change and its United States Global Change Research Program.

The Environment Center is often not the only USAID operating unit working in these collaborative arrangements. The Agency's other central and regional bureaus, as well as its overseas missions, commonly are active partners in these and other efforts, especially in country-level activities and initiatives. For example, the Environment Center and other Agency units are working together on cross-cutting issues related to gender in the Cairo Programme of Action of the United Nations International Conference on Population and Development.

E. DEVELOPMENT LESSONS LEARNED

USAID has learned many lessons that will serve to guide the future programming of the Environment Center.

1. Policy and Regulatory Reform

For environmental improvement to be sustainable, USAID recognizes that appropriate policies and regulatory frameworks must be in place. Furthermore, these policies and regulations must assign clear jurisdiction and responsibility, encourage market-oriented and incentive driven solutions, and provide for the allocation of sufficient resources.

2. Institutional Strengthening

The success of environmental policies depends on the strength of the public, non-governmental, and other private sector institutions involved. This requires specially designed training programs, management and technology information transfer, problem-focused technical assistance, and sufficient resources, including competent personnel, equipment and funding.

3. Market-Oriented Solutions and Private Sector Participation

The solution to environmental problems must actively involve the private sector including non-governmental organizations, and, to the extent possible, the use of the market pricing of environmental resources. Increasingly the role of the public sector is shifting toward that of appropriate regulation and provision of appropriate incentives,

rather than the monopoly provider of environmental and energy services.

4. Broad Participation and Decentralization

Broad participation by all stakeholders—including women, indigenous peoples, and local populations—in the environmental planning, decision making and management processes is fundamental to the accomplishment of sustainable development. This requires an educated public that can participate knowledgeably in environmental decision making. Sustainable environmental solutions rely heavily on decentralizing responsibility and authority to local governments and organizations, along with the resources necessary to address the problems.

5. Collaboration Among Development Assistance Institutions and Leveraging Resources

Given the magnitude of environmental problems, USAID assistance efforts must concentrate on the synergistic application of resources from many development institutions, non-governmental organizations and the private sector. USAID can play a lead role in influencing the effective use of these resources.

6. Information Exchange and Continuing Research

The resolution of environmental problems is grounded in part on the availability of sound information for decision-making. This requires the constant exchange of technical and managerial information, supported by strategic research applied to real development problems. USAID realizes that generating the appropriate information alone is not sufficient. Ways and means to disseminate this information that are efficient and easily accessible are equally important.

F. USAID ENVIRONMENTAL ASSISTANCE ACTIVITIES

USAID's FY 1994 environmental portfolio amounted to approximately \$650 million, or about 11 percent of the Agency's total development assistance funds. This was distributed in roughly equal thirds among Egypt, Eastern Europe and New Independent States, and all other USAID-assisted countries. In FY 1994, USAID targeted \$105 million to tropical forest and biodiversity conservation, \$147 million for energy efficiency and renewable energy, \$58 million for environmentally sustainable agriculture, \$38 million for water resources management, \$236 million for improved urban management and industrial pollution prevention, and \$165 million for environmental planning and policy. In addition, most of the \$100 million in Housing Guarantee loans in FY 1994 was used to finance urban environmental infrastructure.

USAID's commitment to two priority global issues—biodiversity conservation and global climate change—is growing. In biodiversity conservation, where USAID is a recognized world leader, USAID concentrates on parks and protected areas and sustainable economic uses of biological resources. Increased attention is needed in certain high priority areas, such as Brazil and the South Pacific.

In global climate change, USAID is just beginning to develop a comprehensive program that will be based upon the recently submitted report to Congress, "Global Climate Change: The USAID Response." In FY 1993, total obligations for GCC related activities was \$124 million, of which \$62 million was committed to the New Independent States region, \$26 million to Eastern Europe, and the remaining \$31 million elsewhere. Many key countries, such as Russia and Indonesia, still lack country strategies to mitigate greenhouse gas emissions.

Each USAID Regional Bureau has defined a unique emphasis to environment and natural resources:

-  The Africa Region has focussed on natural resource management, biodiversity conservation, and sustainable agriculture. In the future, the region plans to pay increasing attention to pollution control and prevention.
-  The Asia and Near East Region concentrates on biodiversity and tropical forest conservation, sustainable energy development, environmental policy, pollution prevention, and urban environmental infrastructure.
-  The Europe and New Independent States Region is focusing on energy efficiency, urban and industrial pollution, biodiversity and natural resource management, and environmental policy reform.
-  The Latin American and Caribbean Region has placed a clear priority on biodiversity and tropical forest conservation, water and coastal resources management, sustainable agriculture, and environmental policy. This region is seeking to strengthen its emphasis on urban and industrial pollution, and sustainable energy development.

PART II: THE ENVIRONMENT CENTER'S STRATEGIC FRAMEWORK

The "shared" **strategic objectives** proposed by the Center below represent an indivisible array of environment and development results from all units within USAID working on environment activities as well as satisfying the Agency mandate to deal with two key global environmental issues. The **cross-cutting programmatic approaches** describe the principles of development assistance that will guide our work toward our the strategic objectives.

Each strategic objective is also linked to a number of measurable **program outcomes**. These are the results of the Environment Center's efforts that contribute to achievement of the strategic objectives. For each strategic objective, there are a number of specific **programmatic approaches**, which represent interrelated activities to which the Environment Center will apply its resources.

A. CROSS-CUTTING PROGRAMMATIC APPROACHES

The Environment Center's work will employ the following cross-cutting programmatic approaches in all of its activities and programs:

-  **Plan globally and act locally.** The Environment Center helps (1) set USAID priorities for global environmental concerns and (2) select priority ecoregions and countries for carrying out these objectives. The Environment Center will monitor and assess the direction and overall impact of USAID's environment program to ensure that it is effectively accomplishing the desired goals. The bulk of the Center's resources, however, will be dedicated to supporting USAID country programs.
-  **Address the root social, economic, and political causes** underlying environmental and natural resource degradation and depletion. The Environment Center stresses preventive approaches, rather than efforts to deal with the symptoms of environmental problems. The Environment Center encourages and supports complementary efforts in the areas of poverty alleviation and economic growth, democracy building, reduction in population growth, environmental health, human capacity development, and gender sensitivity.
-  **Promote development and enforcement of environmental laws and policies** that support the sustainable use and conservation of resources. These policies

should encourage open markets and prices that internalize the true environmental costs of production. Wherever feasible, laws and policies should also provide positive incentives for environmental improvement.

-  **Seek institutional collaboration** between USAID, its field missions, and other donors, host country agencies, non-governmental organizations, and other USG agencies. The Environment Center intends to increase the impact of USAID's limited resources by leveraging private and public support for environment.
-  **Promote decentralized, participatory decision making**, ensuring full involvement and empowerment of local women and men in environmental programs. The Environment Center will pay particular attention to strengthening local economic, political, and social capacity so that developing countries and their citizens can take responsibility for their own well-being. The Environment Center helps field missions to facilitate open dialogue between people and their governments. And, we support programs to increase awareness and education of adults and children in developing countries about environmental issues and their own important role in addressing them.
-  **Recognize the different roles played by women and men** in environment and natural resources management (NRM), and plan development interventions accordingly. The Environment Center will assist in the incorporation of gender considerations in design, implementation, and evaluation of the Center's and the Agency's programs and projects.
-  **Strengthen the role of the private sector** by fostering both profit and environmental soundness. The Environment Center supports appropriate methods for promoting private sector participation in investments in environmentally protective activities. We seek to encourage broad-based economic growth by assisting grassroots small business organizations to use natural resources sustainably .
-  **Strengthen the capacity of national and local government institutions and non-governmental organizations** to protect and manage environment and natural resources. The Environment Center supports development of focused training, education and capacity building programs. The Center will (1) strengthen local governance through partnerships with United States public and private institutions, and (2) empower indigenous non-governmental organizations through grants, training, technical information, and national policy reform favoring NGOs.
-  **Encourage information and technology transfer.** The Environment Center

supports efforts to improve local decision making processes through the collection and dissemination of relevant and timely scientific and management information and knowledge drawn from the best available applied and strategic research. Likewise, efforts to transfer cost effective and environmentally sound technologies to solve pollution, urban, and energy problems will receive assistance.

B. STRATEGIC OBJECTIVES, PROGRAM OUTCOMES, SPECIFIC PROGRAMMATIC APPROACHES, AND INDICATORS

Figure 2 encapsulates USAID's sustainable development strategies, the Agency's environmental goals, the Environment Center's strategic objectives -- which it shares with other USAID units and program outcomes for each of the Center's three major program areas.

Program outcomes for all strategic objectives are structured around the major elements of the Center's mandate: technical leadership and support both within the Agency and in domestic and international fora. The program outcomes have been selected to be within the Center's manageable interest and control and have been crafted in similar terms for each strategic objective. The first type program outcome, technical leadership for USAID, refers to the results of the Center's mandate for leadership within the Agency for environment. It captures the results of our strategic planning, technology innovation, monitoring and evaluation, and other similar activities. The second program outcome for the strategic objectives is technical support to USAID clients. It refers captures the impact of our technical support to various units within the Agency, particularly country programs by which we mean missions, USAID field representations, and countries served by regional programs. The third outcome captures the impact of our mandate for technical leadership and support for non-USAID entities. It includes our provision of technical support to the State Department and other USG agencies in negotiation of international agreements and our role in advising international finance institutions, non-governmental and private voluntary organizations, and commercial firms.

The indicators have been tentatively selected as meaningful proxies for outcome and objective achievement while being relatively easy and inexpensive to measure. The Center expects that indicators will need to be refined as the results monitoring system is developed, means of measurement and baseline data needs are established, and initial monitoring is undertaken.

FIGURE 2: USAID SUSTAINABLE DEVELOPMENT STRATEGIES AND ENVIRONMENT GOALS AND ENVIRONMENT CENTER SHARED STRATEGIC OBJECTIVES AND PROGRAM OUTCOMES

USAID BASIC STRATEGIES				
Protecting the environment.	Building democracy.	Stabilizing world population growth and protecting human health.	Encouraging broad-based economic growth.	Providing humanitarian assistance and aiding post-crisis transitions.

USAID ENVIRONMENTAL STRATEGIC GOALS	
Reducing long-term threats to the global environment, particularly loss of biological diversity and climate change.	Promoting sustainable economic growth locally, nationally, and regionally by addressing environmental, economic, and development practices that impede development and are unsustainable.

USAID ENVIRONMENT CENTER STRATEGIC OBJECTIVES (SHARED WITH OTHER USAID UNITS)		
Increased and improved protection and sustainable use of natural resources, principally forests, biodiversity, and freshwater and coastal ecosystems.	More sustainable cities, including reduced pollution and more environmentally sound urbanization.	Increased environmentally sound energy production and use (encompassing energy efficiency, renewable energy, non-renewable energy resources, and environmental technology).

Sustainable Living Resource Program Outcomes	Sustainable Urbanization Program Outcomes	Sustainable Energy System Program Outcomes
<p>Outcome of G/ENV Technical Leadership for USAID:</p> <p>Improved techniques for the analysis, implementation, monitoring and evaluation of NRM activities developed and applied.</p>	<p>Outcome of G/ENV Technical Leadership for USAID:</p> <p>Improved approaches for sustainable cities developed and implemented for municipal governance, shelter and finance, environmental infrastructure and services, hazard management, and prevention of urban-industrial pollution.</p>	<p>Outcome of G/ENV Technical Leadership for USAID:</p> <p>Improved techniques developed and applied for the analysis, implementation, monitoring, and evaluation of activities that increase delivery of environmentally sound energy.</p>
<p>Outcome of G/ENV Technical Support to USAID:</p> <p>More effective NRM assisted by USAID country programs in 40 countries covering 15 percent of their priority areas.</p>	<p>Outcome of G/ENV Technical Support to USAID:</p> <p>More effective municipal governance, shelter and finance, environmental infrastructure and services, hazard management, and urban-industrial pollution prevention adopted by 25 USAID country programs.</p>	<p>Outcome of G/ENV Technical Support to USAID:</p> <p>Increased host country delivery of environmentally sound energy services, especially for the urban poor, in 25 USAID country programs focusing on 10 global climate countries.</p>
<p>Outcome of G/ENV Leadership and Support to International and Domestic Agencies:</p> <p>Increased domestic and international awareness and understanding of issues, problems and effective management options for natural resources.</p>	<p>Outcome of G/ENV Leadership and Support to International and Domestic Agencies:</p> <p>Increased domestic and international awareness and understanding of issues, problems, and effective sustainable urban development approaches for the focus areas as stated above.</p>	<p>Outcome of G/ENV Leadership and Support to International and Domestic Agencies:</p> <p>Increased domestic and international awareness and understanding of issues, problems and effective management options for resolving problems in the areas of Global Climate Change, energy efficiency, renewable energy, and environmental technology.</p>

1. Sustainable Living Resources Program Area Strategic Objective

Increased and improved protection and sustainable use of natural resources, principally forests, biodiversity, and freshwater and coastal ecosystems.

a. Key Problems

The natural resources upon which people depend for sustainable development are being increasingly degraded, depleted, and inefficiently used. Ubiquitous resource degradation problems include uncontrolled deforestation, massive soil erosion, increasing water scarcity, extensive water quality deterioration, pollution and overdevelopment of vital coastal and aquatic ecosystems, and loss of genetic resources.

b. Grassroots Institutions

In helping developing countries produce effective national and local environmental action plans, the Center will make maximum efforts to (1) empower indigenous non-governmental organizations, (2) encourage broad-based economic growth by buttressing small business organizations and institutions at the grassroots level, and (3) strengthen local governance through partnerships with United States public and private institutions.

c. Gender Issues

The Environment Center will help the Agency, its country programs, and its development partners understand and use gender-related information about activities which affect the sustainability of the natural resource base. It will assist in supporting women's and men's groups in identifying shortfalls in existing programs and recommending solutions to natural resource problems. The Center will assist country programs to work with host country governments to understand that (1) educating women and men can improve the economic and environmental well-being of their communities, and (2) increasing the involvement of women and men in environmental decision making is essential to sustainable development.

FIGURE 3: SUSTAINABLE LIVING RESOURCES STRATEGIC OBJECTIVE, PROGRAM OUTCOMES, AND INDICATORS

Sustainable Living Resources Strategic Objective: Increased and improved protection and sustainable use of natural resources, principally forests, biodiversity, and freshwater and coastal ecosystems.

Indicators:

A decline in the rate of increase in deforestation of 15 percent of the priority forest areas of 5 countries by 2003.

A decline in the rate of degradation of 25 percent of the priority biodiverse ecosystems of 10 countries by 2003.

A decline in the rate of degradation of 10 percent of priority freshwater and coastal ecosystems of 5 countries by 2003.

Reduction in the growth of forest-based greenhouse gas emissions from 10 key countries and increase in carbon sequestration rates by forests in 5 key countries by 2003.

USAID Technical Leadership Program Outcome: Improved techniques for the analysis, implementation, monitoring and evaluation of NRM activities developed and applied.

Indicators:

International system in place for monitoring deforestation by 1999.

Improved techniques for NRM problem and constraint analysis in full use in USAID by 1997.

Improved techniques for NRM results monitoring for USAID country programs developed by 1997 and in full implementation by 2000.

Gender concerns satisfactorily incorporated into the analysis, design, implementation and evaluation of 100 percent of all key USAID NRM country programs by 1998.

Increased availability of the appropriate types of research data needed to implement USAID NRM programs by year 1998.

Field-tested models of sustainable NRM approaches available for all USAID NRM priority areas by year 1999.

USAID Technical Support Program Outcome: More effective NRM assisted by

USAID country programs in 40 countries covering 15 percent of their priority areas.

Indicators:

Improved availability and quality of NRM expertise to all USAID country programs asking for assistance by 1997.

15 USAID country programs promotes improved policies supporting more effective environment and natural resources management practices at the local level by 2003.

5 USAID country programs adapt plans and recommendations for improved management of 15 percent of their key forest zones by 2003.

10 USAID country programs adapt plans and recommendations for improved protection and management of 25 percent of their parks and other protected areas by 2003.

5 USAID country programs adapt plans and recommendations for improved management of 10 percent of their freshwater and coastal ecosystems by 2003.

In 12 USAID-assisted countries people ranking natural resources among the top ten issues of concern to them increases by at least 15 percent by 2003.

Global Technical Leadership and Support Program Outcome: Increased domestic and international awareness and understanding of issues, problems and effective management options for natural resources.

Indicators:

1,500 domestic and foreign government, donor, non-profit, and commercial agencies receive and use information provided by G/ENV about innovative approaches to NRM problems analysis, solutions, and progress measuring by 1999.

ITTO, IPCC, CSD, CITES, and Small Island Nation States international agreements are improved as a result of G/ENV information and technical assistance to USG negotiating teams by 2000.

\$1.5 billion of MDB, bilateral donor, PVO, and private sector efforts significantly influenced by G/ENV technical guidance in NRM by 2003.

USAID NRM positions (including gender and grassroots partner concerns) increasingly represented in final United States negotiating positions on international agendas and agreements and in other USG agencies' international environmental activities by 1998.

d. Sustainable Living Resources Specific Programmatic Approaches

In addition to the specific programmatic approaches below the Environment Center will use the cross-cutting programmatic approaches, mentioned earlier, in developing and implementing its program activities in this area.

-  To improve natural resource policies and strengthen institutions, the Center supports: development and implementation of national and regional management plans that incorporate policy reforms with socio-economic incentives, institutional restructuring, and comprehensive management strategies.
-  To enhance natural resource management practices, the Center supports: (1) technology cooperation and information exchange for sustainable natural resources management, especially in such areas as geographic information systems, inventory techniques, and environmental standards, and (2) the dissemination and use of applied research in a wide range of natural resources management areas. conservation.
-  To heighten public awareness and education, the Center supports: increased public education and training at all levels about the need for natural resource conservation and protection of priority areas, such as wetlands and coastal zones.
-  To strengthen local natural resource programs and participation, the Center supports: (1) efforts that effectively integrate stakeholder, community, and household concerns into resource planning and decision making including rapid environmental assessments and national environmental action plans to advance conservation and sustainable management of threatened habitats and other fragile, environmentally-sensitive areas, and (2) programs that bolster the capacity of local private voluntary organizations and non-governmental organizations to develop, analyze and implement appropriate natural resources programs, including the passage of effective institutional and legal arrangements to enable governments to engage NGOs in the process of determining appropriate policies, (3) efforts to increase the involvement in environmental decision making of women, and (4) an improved legal and regulatory framework to provide incentives, institutional arrangements, and opportunities for entrepreneurial and business activities related to natural resource management by low-income people.
-  To improve public and decision maker understanding of natural resources management and conservation, the Center supports: (1) formal and informal

science educational programs, technical and research information transfer activities, and exchange programs between donors, private foundations, and non-governmental organizations, (2) efforts to improve global monitoring of the status of natural resources and the dissemination of this information, and (3) guiding the agenda for research on natural resources and the dissemination of research results.

-  To improve policies and economic incentives, the Center supports: (1) organizational development, strategic planning, and policy analysis, development, and advocacy, (2) the establishment of geographic priorities for terrestrial natural resources management, (3) innovative financing such as ecotourism, biodiversity prospecting, debt-for-nature swaps, conservation trust funds, and endowments of host country conservation foundations in cooperating nations, (4) the implementation of enterprise-oriented community based conservation, and (5) the development of national natural resources strategies and implementation arrangements.
-  To improve the management of natural resources, the Center supports: (1) technical assistance for conservation planning and management, (2) training programs for developing country governmental officials, non-governmental organizations, private voluntary organizations, economists, and scientists, (3) development of innovative and effective conservation technologies, (4) programs in aquatic ecosystem conservation, including freshwater and coastal systems, and (5) efforts to involve stakeholders in the planning, management, and evaluation of conservation activities, especially local people, including women, indigenous groups, and rural poor populations.
-  To increase financial and programming commitments, the Center supports: (1) collaborative partnerships for natural resources conservation with multilateral and bilateral donors, (2) increased national and international funding and innovative financing of natural resources management conservation programs, and (3) consideration of natural resources management concerns in all USAID programming activities.
-  To increase carbon sinks, the Center supports: (1) efforts to maintain the integrity of existing carbon sinks, especially tropical forests, and (2) creation of new sinks in forest and agricultural areas.

2. Sustainable Cities Program Area Strategic Objective

More sustainable cities, including reduced pollution and more environmentally sound urbanization.

a. Key Problems

Explosive and poorly managed urbanization and industrialization have contributed significantly to air, water, and soil pollution worldwide. These environmental hazards endanger the health and productivity of citizens in developing countries, especially the urban poor.

b. Grassroots Institutions

In helping developing countries produce effective national and local environmental action plans, the Center will make maximum efforts to (1) empower indigenous non-governmental organizations, (2) encourage broad-based economic growth by buttressing small business organizations and institutions at the grassroots level, and (3) strengthen local governance through partnerships with United States public and private institutions.

c. Gender Issues

Since both women and men are directly affected by poorly managed urbanization, inadequate shelter, and health threatening urban environmental conditions, the Environment Center will assist the Agency, its field missions, and its development partners in identifying the specific gender-related problems, needs, opportunities, and potential solutions. Local and national groups that represent the interests of both women and men will be utilized to identify shortcomings in existing programs and recommend changes.

FIGURE 4: SUSTAINABLE CITIES STRATEGIC OBJECTIVE, PROGRAM OUTCOMES, AND INDICATORS

<p>Sustainable Cities Strategic Objective: More sustainable cities, including reduced pollution and more environmentally sound urbanization.</p> <p>Indicators:</p> <p>Increased access, especially by the urban poor, to urban environmental infrastructure (i.e., water and sewer connections, treatment and collection of liquid and solid waste), in 25 countries by 2003.</p> <p>Increased access, especially by the urban poor, to shelter and its financing in 25 countries by 2003</p> <p>Increased operational, maintenance, and capital expenditures for urban infrastructure and services financed through revenues generated locally or borrowed in capital markets, in 25 countries by 2003.</p> <p>Reduced injury, loss of life, and property damage attributable to natural disasters in 25 countries by 2003.</p> <p>Increased use of industrial pollution prevention and control technologies in 25 countries by 2003.</p>
<p>USAID Technical Leadership Program Outcome: Improved approaches for sustainable cities developed and implemented for municipal governance, shelter and finance, environmental infrastructure and services, hazard management, and prevention of urban-industrial pollution.</p> <p>Indicators:</p> <p>Agency-wide plans for these sustainable urban development approaches (outlined above) are developed under the leadership of G/ENV, and substantial elements are adopted by at least 25 USAID country programs.</p> <p>Technical planning and management innovations affecting health, shelter, disaster management, and other key environmental facets of urban areas, especially for the poor, promulgated and adapted in 25 countries other than through USAID country programs.</p> <p>Gender concerns satisfactorily incorporated into the analysis, design, implementation and evaluation of 25 USAID urban development country programs.</p>
<p>USAID Technical Support Program Outcome: More effective municipal governance, shelter and finance, environmental infrastructure and services, hazard management, and urban-industrial pollution prevention adopted by 25 USAID country programs.</p>

Indicators:

25 USAID country programs receive from G/ENV timely, repeated, consistently high-quality technical support (technical assistance, training, information, catalytic funding) in municipal governance, shelter and finance, and environmental infrastructure and services.

25 USAID-assisted countries adopt and implement improved policies, plans, and regulatory framework changes which support more effective sustainable urban development and disaster management and practices at national and local levels.

25 USAID-assisted countries adopt G/ENV plans and recommendations for bettering health of urban poor.

25 USAID-assisted countries adopt G/ENV plans and recommendations for reducing urban and industrial pollution through increased energy and pollution leak detection equipment.

Global Technical Leadership and Support Program Outcome: Increased domestic and international awareness and understanding of issues, problems, and effective sustainable urban development approaches for the focus areas as stated above.

Indicators:

Habitat Conference and other agreements result in adoption of improved policies for sustainable urban development in at least 40 countries as a result of G/ENV information and technical assistance to USG negotiating teams.

\$10 billion of MDB, bilateral donor, and PVO program loans and grant funds in urban development, disaster management, and urban environmental infrastructure significantly influenced by G/ENV technical guidance in sustainable urban development.

50 domestic and foreign agencies receive information on effective sustainable urban development approaches promulgated by USAID, focussed on municipal governance, shelter and finance, and environmental infrastructure and services.

USAID sustainable urban development positions increasingly represented in final United States negotiating positions on international agendas and agreements and other USG agencies' international environmental activities.

d. Specific Programmatic Approaches

In addition to the specific programmatic approaches below the Environment Center will use the cross-cutting programmatic approaches, mentioned earlier, in developing and implementing its program activities in the sustainable cities program area.

-  To increase awareness of urban management and industrial pollution problems, the Center supports: (1) the development of rapid environmental assessments and national environmental action plans involving extensive citizen participation, including non-governmental organizations (NGOs), women's groups, and small business entrepreneurs, (2) urban and industrial pollution management conferences held by NGOs, (3) programs to promote greater civic awareness and education about urban environmental conditions, especially for the urban poor, and (4) the passage of effective institutional and legal arrangements to enable governments to engage NGOs in the urban development process.
-  To improve policies and regulations, the Center supports: (1) the incorporation of environmental concerns into transparent priority-setting and decision-making processes and (2) land use planning and capital improvements programming.
-  To strengthen institutions and increase access to environmental infrastructure and services, the Center supports: (1) the use of urban environmental management practices which also embrace sound industrial environmental management practices that emphasize incentives rather than penalties  and pollution prevention rather than treatment, (2) efforts to increase access to potable water, (3) programs to reduce sewage pollution, and (4) programs to reduce air pollution.
-  To increase technology cooperation, the Center supports (1) efforts in the private sector to incorporate environmental costs and benefits into its decision-making and (2) demonstrations of innovative technologies that can both prevent pollution, and make industry more profitable.
-  To increase access to shelter and its financing, the Center supports (1) the streamlining of the delivery of land with environmental infrastructure and services, (2) improvement in cost-recovery approaches, (3) the development of financial mechanisms for shelter and infrastructure, and (4) small business and other private sector participation in service delivery, including creation or improvement of legal and regulatory frameworks to provide incentives, institutional arrangements, and opportunities for entrepreneurial activities by and for lower income people.

- ✎ To improve urban management and governance, the Center supports (1) efforts to decentralize government and strengthen municipal autonomy, (2) the introduction of innovative techniques for rapidly gathering information, mobilizing support, and making decisions, and (3) measures that lead to improved local government finance.

3. Sustainable Energy Systems Program Area Strategic Objective

Increased environmentally sound energy production and use (encompassing energy efficiency, renewable energy, non-renewable energy resources, and environmental technology).

a. Key Problems

Energy shortages, the inefficient use of energy, and energy-related pollution act as brakes on sustainable development at the local and national levels. Energy production and use is a major contribution to the global accumulation of greenhouse gases, as well as a significant cause of local air pollution and regional acid rain problems.

b. Grassroots Institutions

In helping developing countries produce effective national and local environmental action plans, the Center will make maximum efforts to: (1) empower indigenous non-governmental organizations, (2) encourage broad-based economic growth by buttressing small business organizations and institutions at the grassroots level, and (3) strengthen local governance through partnerships with United States public and private institutions.

c. Gender Issues

In the energy sector, women are suppliers and user of energy in urban and rural areas. Women in households spend a significant portion of their time and income on fuel for domestic subsistence and home-based commercial enterprises. The Environment Center will assist the Agency, its field missions, and its development partners in addressing these problems and pursue programs that lead to increased energy efficiency and conservation✎ with attendant savings in money and time. Additionally, women and men will benefit from increased educational programming focused on renewable energy, energy conservation, and energy efficiency. Also, the Center will assist women in becoming more involved in institutions that make energy policy through technical and professional training targeted toward women.

FIGURE 5: SUSTAINABLE ENERGY SYSTEMS STRATEGIC OBJECTIVE, PROGRAM OUTCOMES, AND INDICATORS

<p>Sustainable Energy Strategic Objective: Increased environmentally sound energy production and use (encompassing energy efficiency, renewable energy, non-renewable energy resources, and environmental technology).</p> <p>Indicators:</p> <p>More efficient per capita energy consumption in 10 focus countries by 2003.</p> <p>Increase in renewable energy power generation projects implemented in 20 countries by 2003.</p> <p>More efficient and expanded generation of electricity from private power investment in 20 countries by 2003.</p> <p>Reduced growth of energy sector emissions of Global Climate Change (GCC) gases in 10 key GCC countries by 2003.</p>
<p>USAID Technical Leadership Program Outcome: Improved techniques developed and applied for the analysis, implementation, monitoring, and evaluation of activities that increase delivery of environmentally sound energy.</p> <p>Indicators:</p> <p>Agency-wide plans for global climate change and environmentally sound delivery of energy services are developed under the leadership of G/ENV and of which substantial elements are adopted by at least one-third of all USAID Missions.</p> <p>Gender concerns satisfactorily incorporated into the analysis, design, implementation and evaluation of 10 USAID energy development country programs.</p>
<p>USAID Technical Support Program Outcome: Increased host country delivery of environmentally sound energy services, especially for the urban poor, in 25 USAID country programs focusing on 10 priority global climate change countries.</p> <p>Indicators:</p> <p>Increased and more effective energy policy and regulatory frameworks; public and private sector institutional capacity; and increased private sector participation in the energy sectors in 20 USAID country programs.</p>

Increased access to and use of environmentally sound technologies in energy, industrial, and urban infrastructure facilities in 15 USAID country programs.

Global Technical Leadership and Support Program Outcome: Increased domestic and international awareness and understanding of issues, problems and effective management options for resolving problems in the areas of global climate change, energy efficiency, renewable energy, and environmental technology.

Indicators:

Increased and more effective international and domestic public and private investment in more environmentally sustainable energy methodologies and technologies; energy policy and regulatory frameworks; public and private sector institutional capacity; and increased private sector participation.

International and domestic agreements and investments of MDBs, other donors, and PVOs/NGOs are significantly influenced by G/ENV technical guidance, and result in adoption of improved policies related to global climate change in key GCC countries.

USAID sustainable energy systems positions are represented in final United States negotiating positions on international agendas and agreements. Other USG agencies international environmental activities incorporate and are consistent with USAID environmental agenda.

d. Specific Programmatic Approaches

In addition to the specific programmatic approaches below the Environment Center will use the cross-cutting programmatic approaches, mentioned earlier, in developing and implementing its program activities in the sustainable cities program area.

-  To increase awareness of energy and climate change issues, the Center supports: (1) the development of rapid environmental assessments and National Environmental Action Plans including energy concerns involving extensive citizen participation, including non-governmental organizations (NGOs), women's groups, and small business entrepreneurs (2) energy production and use conferences held by NGOs, (3) programs to promote greater civic awareness and education about the challenges and problems of energy issues, especially for the urban poor, and (4) the passage of effective institutional and legal arrangements to enable governments to engage NGOs in the process of determining appropriate energy policies.
-  To improve energy policy, the Center supports policies and regulations that: (1) provide for the economic pricing of energy, including its environmental costs, (2) encourage the adoption of sound environmental pollution control technologies and techniques, and (3) encourage energy efficiency and renewable energy use.
-  To increase energy efficiency, the Center supports programs that foster the implementation of energy efficient technologies and practices and appropriate environmental standards.
-  To increase renewable energy use, the Center supports programs to develop and implement commercial renewable energy facilities.
-  To increase innovative and environmentally sound non-renewable energy technologies, the Center supports efforts to accelerate technology transfer and cooperation involving environmentally sound energy technologies.
-  To increase private participation in the energy sector, the Center supports: (1) institutional changes that foster the transition from state-owned to privately-owned energy facilities, (2) information transfer about successful private sector approaches which have improved the environmental performance of energy facilities, (3) collaborative work leading to increased private sector financing for energy and related environmental improvements, and (4) creation or improvement of legal and regulatory framework adequate to provide incentives, institutional arrangements, and opportunities for entrepreneurial and business activities, including those by and for lower income people.

-  To reduce the growth rate of greenhouse gas emissions, the Center supports: (1) energy efficiency, demand side management, and renewable energy use, (2) the acceleration of technology transfer and cooperation involving environmentally sound technologies, and (3) projects in energy and industry that lead to 15-50 percent reduction in greenhouse gas emissions per unit of service delivered.
-  To improve policies and plans for climate change, the Center supports: (1) national action plans to mitigate greenhouse gas emissions, assess vulnerability to adverse impacts, and adapt to climate change, and (2) policy and regulatory reform to foster the implementation of efficiency measures and environmental standards.
-  To increase institutional capability, the Center supports: (1) the Global Environment Facility, (2) strengthening institutional capacity to address climate change issues through training, and (3) continued collaboration with United States lending and investment agencies to leverage additional private resources for global climate change mitigation projects.
-  To improve information exchange, the Center supports: (1) efforts to collect and disseminate high quality information through electronic and other means, and (2) monitoring greenhouse gas emissions in target countries

C. KEY ASSUMPTIONS

In preparing this strategy, the Environment Center has taken care to select a path of action with a high likelihood of success. Should several of the following general assumptions not hold, however, the Environment Center will undoubtedly encounter great difficulty in achieving its strategic objectives. These assumptions include:

-  Administration, Congressional, and United States public support for international environmental concerns will remain relatively strong.
-  USAID funding and personnel for environmental activities will not fall substantially below current levels.
-  Other donor, international finance institution and private sector interest in environmental funding and other resource commitments will remain as strong as, or stronger than, it is today.
-  Host-country governments will maintain and increase political commitment to

environmental improvement and continue to collaborate with USAID.

D. AREAS OF COLLABORATION WITH OTHER GLOBAL BUREAU CENTERS AND OFFICES

In addition to the Environment Center, the Global Bureau has four other centers and one office with which the Environment Center will be collaborating on overlapping issues and areas of closely related responsibility. These are the Office of Women in Development, the Center for Economic Growth; Center for Democracy and Governance; the Center for Population, Health, and Nutrition; and the Center for Human Capacity Development.

In accordance with its Strategic Objectives, the Environment Center has identified a number of the areas where the Environment Center will be working with these other units in the Global Bureau. The following activities are also consistent with, and closely related to, the strategic objectives of the other Global Bureau centers and offices:

1. Office of Women in Development

The sustainability of environmental programs depends upon the full participation of female and male stakeholders. Gender sensitivity and empowerment are central themes in USAID's development assistance programs. In most countries, women and men have different access to productive resources, institutions, and decision making. Through cooperation with the Office of Women in Development and working with its own Environment Center Gender Committee, the Center will ensure that its staff fully integrates gender-based analyses and issues into its programs and projects.

2. Center for Economic Growth

While encouraging broad-based economic growth, USAID must also bear in mind that, ultimately all economic growth rests on the environment and its natural resources. The economic use of natural resources must be sustainable and provide protection to valuable habitat and species. Economic development depends on the maintenance of biodiverse ecosystems and unpolluted urban areas, which, when poorly managed, can damage human productivity, and create inefficient patterns of land use and urbanization that stifle economic growth. Decisions about economic growth should include the careful consideration of environmental impacts and externalities. In particular, the Environment Center will collaborate with the Economic Growth Center in the areas of natural resource conservation and sustainable agricultural practices.

3. Center for Democracy and Governance

In its efforts to bolster democracy, USAID must also take into consideration that effective local government, non-governmental organizations, and national resource management agencies are the basis of a sound environmental improvement program. Working with the Center for Democracy and Governance, the Environment Center will strive to strengthen these institutions, thereby strengthening the basis for civic society. They serve as the principal arena for managing the environment and are also a major training ground for democratization.

4. Center for Population, Health, and Nutrition

When working to safeguard human health and nutrition, USAID must also recognize the consequences to health of poorly managed urbanization and environmental pollution, problems that disproportionately affect the poor. The Environment Center envisions working closely with the Center for Population, Health, and Nutrition on environmental health programs. The continuing pressure from population growth on limited natural resources poses a constant threat to any accomplishments that might be achieved. This represents another area of potential collaboration.

5. Center for Human Capacity Development

Development of an aware and educated constituency for participation in environmental decision making is essential for achieving environmental improvement, properly managed urbanization, and environmentally sound energy production and use. Human capacity development, through increased environmental awareness, environmental education in schools, non-formal education, and environmental training programs can all contribute directly to achieving the Environment Center's strategic objectives. The Environment Center plans to work closely with the Human Capacity Development Center in these areas.