1. At their meeting in Paris on January 27 and 28, 1992, the IDA10 Deputies asked how IDA is integrating environmental concerns and the concepts of sustainable development into its operations. This note addresses that question.

2. The late 1980s marked a turning point in IDA’s approach to environmental issues. Before then, individual operations in sectors like forestry and water supply did generate environmental benefits, and research and policy analysis was done on selected environmental issues. But as the evidence mounted that environmental degradation threatens IDA’s main objectives of sustainable growth and poverty alleviation, it became clear that environmental concerns would have to be integrated into all aspects of development planning and of IDA’s own operations. IDA has moved rapidly to accomplish this integration. Now, environmental assessment of individual projects is complemented by efforts to help governments to build environmental concerns into policymaking. The responsibility for environmental work, as well as the staff expertise, is widely spread throughout the institution. Increasingly, IDA recipient countries are being asked to design and implement environmental monitoring and planning mechanisms appropriate to their situations.

National Environmental Action Plans

3. Developing countries and IDA agree that environmental considerations must be integrated into economic policies and investment programs supporting national economic and social development. Recognizing the seriousness of environmental problems in the developing world, the World Bank started preparing national environmental issues papers in 1987 to emphasize the link between environment and development. It soon became apparent that the identification of problems and issues was only a first step—it was time to act. The World Bank’s Africa Region—in collaboration with national governments—therefore launched the Environmental Action Plan concept, which is now being implemented in all Regions.

4. National Environmental Action Plans (EAPs) are key instruments for governments to
determine priorities, identify the needs for investments and policy changes, and allocate resources in the environmental sphere. A provision in the IDA9 replenishment called for IDA recipients to complete EAPs by June 1993. Accordingly, more than fifty IDA recipients have started work on EAPs or equivalent documents, and about ten of these are already completed. IDA Technical Note No. 2, circulated in January 1992, shows the status of each country’s plan.

5. The plans are proving to be a useful tool for guiding government policy and focussing the support of donors, including IDA, on important environmental issues. For example:

- **Sri Lanka**’s EAP, approved by the Government in late 1991, identified investment needs for the urban environment and for alternative energy sources, and called for studies on industrial pollution, protected areas for elephants and water resource conservation. Following the plan’s recommendations, the Government intends to establish environment units within each sector ministry, so as to effectively integrate environmental objectives into national economic planning. The Plan will also be the focus of a forthcoming donors’ conference.

- **Ghana** completed its EAP in 1990, after a preparation process that involved a wide range of government agencies, research institutes, non-governmental organizations, the private sector and donors. The plan showed that Ghana needs to reorder the priorities in its ongoing investment program and recurrent budget. It also found that local communities, as well as Government institutions, must be involved in the sustainable management of land and water. The Government and IDA have decided to develop just such a system through the Environmental Resource Management Project, which will include a development fund to give communities incentives to adopt improved practices.

- **The Government of Rwanda** completed an EAP in 1991 and has asked IDA to help turn it into an investment program to be presented to donors in the coming year.

6. The process of preparing the EAPs is almost as important as the product. Although IDA provided the initial impetus for launching many EAPs, the plans are prepared by national officials, usually after consultations with people representing public, private and non-governmental entities from many sectors. EAPs provide a way to examine cross-sectoral environmental issues that line agencies, with their sectoral responsibilities, can’t adequately address. This approach helps to build a national consensus around the content and implementation of the plan. IDA and other donors support the process by organizing and participating in workshops, providing technical experts, and advising government officials. IDA has helped sponsor the creation of the Club of Dublin as a forum for African countries to exchange and disseminate their experiences in preparing and implementing EAPs. To help **Madagascar** coordinate the many donors involved in the implementation of its EAP, IDA and USAID are supporting a Multi-donor Secretariat. This pilot operation may eventually be extended to assist other African countries.

7. A directive to guide IDA staff on how to help borrowers prepare and implement EAPs will be issued by July 1992.

**Policy Analysis and Research**

8. A cornerstone of IDA’s support to developing countries has always been its sector studies and policy analyses, which help to inform its policy dialogue with governments and guide their investment planning. Increasingly, these studies address issues of environmentally sustainable development. IDA is able to examine these issues, and discuss them with governments, in the broader context of a country’s macro-economic and sector development situation with which it is already
familiar. Full-scale environmental strategy reviews have recently been done for several countries to identify important policy issues, investment needs and priorities for further study. The Environmental Strategy for China (1991) draws upon IDA's extensive project experience in agriculture, industry, water supply and energy to identify aspects of China's pricing, marketing and investment planning that are contributing to environmental problems. It proposes a comprehensive program of sector studies, technical assistance and leading to help the Government tackle the problems of pollution and resource degradation. In Bangladesh, IDA has prepared an Environment Strategy Review (1991) to complement the Government's own Environmental Action Plan. The Review recommends specific policies and programs in the areas of cyclone protection and water management, air and water pollution, forestry and preservation of biodiversity.

9. Even in sector studies on 'non-environmental' topics, environmental aspects are analyzed systematically. Particular attention is paid to the economic distortions and incentives that often underlie environmental problems. A study on Efficiency and Environmental Impact of Coal Use in China (1991) was prompted by the severe air pollution caused by coal burning in China's cities. It found that the Government's methods of pricing and allocating natural gas and electricity, as well as coal itself, are creating disincentives for industries and households to invest in more efficient, cleaner technologies. The 1991 Irrigation Sector Review for India investigated the environmental and resettlement impacts of irrigation, and made detailed recommendations for both technological, institutional and policy changes.

10. In addition to its work on individual countries, IDA examines environmental policies in a worldwide context. Development and the Environment is the subject of the World Bank's World Development Report for 1992, which will be issued just before the United Nations Conference on Environment and Development in June. The report explores the conditions under which policies for economic growth can complement those for environmental protection, as well as the cases where there are trade-offs and choices to be made. It shows that environmental damage has real—sometimes crippling—economic costs, while good environmental policies often bring good economic returns. Policies that undermine both efficiency and the environment are surprisingly widespread: they include inadequate user charges for water and energy, subsidies on electricity production and supply, and restrictions on capital flows and technology transfer. Reforming them will improve economic efficiency while reducing use of raw materials and disseminating resource-saving technologies. Besides undertaking such reforms, developing countries need substantial investments in new technologies, alternative fuel sources, soil and water conservation, land rehabilitation, public services for waste disposal and water supply, reforestation, family planning and female education in order to reach an environmentally sound development path. The developing countries will require domestic savings, foreign private capital flows and official development assistance to finance this investment.

11. A broad range of sector studies and applied research on environmental themes is conducted by both the operational and research staffs of the Bank. The results of much of the past work have been incorporated in the 1992 World Development Report. An important work in progress is a policy paper on Water Resources Management worldwide. Inadequate supplies and poor quality of water are pervasive environmental problems that affect agriculture, health, industry and urban life in developing countries. The policy paper will therefore look at techniques for protecting and managing water in all its roles. A task force has reviewed the 250 Bank and IDA projects that have tried to increase energy efficiency—a goal that entails more prudent use of non-renewable fuels and a reduction of air pollution. It found several factors preventing many developing countries from using energy efficiently. Energy prices are too low; the public sector institutions that supply power are often inefficient and technically mediocre; industrial
sectors are so protected and uncompetitive that they have little incentive to improve efficiency, and the capital equipment is old-fashioned. Many IDA projects—both adjustment and investment operations—are addressing one or more of these constraints. Both the Task Force Report and the Water Policy Paper will soon be presented to the Board. In the area of environmental research, the Bank is playing a leading role in developing ways to incorporate environmental considerations into national income accounts, and has cooperated with the United Nations Statistical Office to prepare a handbook on environmental accounting.

12. The Bank’s training arm, the Economic Development Institute, organizes a dozen or more seminars and courses annually on environmental policies for senior African, Asian and Latin American officials. For instance, a seminar for Asian policymakers looks at measures to mitigate the environmental impact of urban transport operations, and a course is offered to high level African officials about the environmental issues encountered in designing and operating projects to develop water resources.

Environmental Considerations in Project Design and Implementation

13. Development projects can and must be designed so that they avoid environmental damage and allow resources to be managed sustainably. Environmentally sustainable development goes beyond obvious measures like providing pollution control equipment for factories; it includes choosing appropriate sites for buildings and dams; adopting farming systems that enhance soil fertility and inhibit erosion; developing renewable sources of energy, protecting natural habitats, and so on. In order to ensure that its projects fully exploit opportunities for environmentally sound development, the World Bank has issued several guidelines and policies that govern project design. The most comprehensive of these is the directive on Environmental Assessments, which requires borrowers to assess every project’s effect on the environment at an early stage of project design. The borrower must also solicit and take into account the views of affected groups and local non-governmental organizations. Within the Bank, each project is screened by environment specialists and classified as A, B or C, according to the significance of its potential environmental impact. Summaries of the borrowers’ EAs for projects classified as "A" are sent to the Executive Directors well before the project is presented for approval. For "B" projects, environmental analyses are done and data sheets made available to Directors. IDA Technical Note No. 2 includes a list of recently issued Environmental Assessment Summaries.

14. Now that the Environmental Assessment system has been in place for over two years, the Bank is reviewing its effectiveness and costs, and will report to the Board within the next few months. The review will examine all the EAs that have been prepared for projects classified as "A" and assess their effect on the design, timing and implementation of projects. It will look into the reasons for the rather uneven quality of the EAs received so far, and will estimate the costs to the Bank and the borrowers of doing EAs.

15. The EA procedure is supplemented by guidelines and policies on certain complex issues. The 1986 Wildlands Policy was one of the Bank’s early measures to improve projects’ environmental design, and it is still in effect. It says that the Bank should avoid financing the development of wildlands, but that if a project does require the conversion of a large area of wildland, it should also finance the conservation of an equivalent and ecologically similar area. In projects that depend on services from wildlands ecosystems, there must be a component specifically designed to conserve those wildlands. A directive on indigenous peoples calls for projects to include plans specifically designed to protect the rights and meet the needs of indigenous peoples affected by IDA operations. A directive on involuntary resettlement requires that people displaced by projects be compensated for their losses at full replacement cost, supported during the transition to the resettlement site, and assisted to improve, or at least restore, their former earning capacity and living standards. Detailed guidelines are in effect on how to measure, avoid and mitigate the
Box 1: The Wildlands and Resettlement Policies in a Water Supply Project

The St. Lucia Water Supply Project (FY90) will provide drinking water for the northwest area of the island country by damming the upper Roseau River to create a 25 hectare reservoir. To preserve the quality of the water, the project will create—under the Wildlands Policy—1500 hectare Protection Forest, where agriculture and other non-forest land uses are prohibited. Land now degraded or under cultivation will be reforested, and the families farming there will be moved to higher quality farmland and compensated for temporary loss of income, in accordance with the policy on resettlement. The region is home to the endangered St. Lucia parrot (Amazona versicolor), so construction will be restricted during its breeding season and clearing will be done by hand.

Environmental consequences of dams and reservoirs. Agricultural pesticides for IDA projects must be selected and used in accordance with guidelines designed to protect both people and the environment. Detailed explanations and examples of how to use EAs and guidelines have recently been published in a three-volume Environmental Assessment Sourcebook for use by borrowers, staff and other donors.

16. The World Bank’s new Forest Policy, approved by the Board in 1991, is an important statement of priorities for lending in this key environmental subsector. Lending for forestry had grown rapidly during the 1980’s, with increasing emphasis on social forestry and environmental issues. But projects involving tree crops, agricultural development and infrastructure had sometimes produced undesirable impacts on forest resources. Moreover, a review by the Operations Evaluation Department of ten years of forestry lending found that the Bank and IDA needed to strengthen their analysis of the sector and its links to the rest of the economy; to improve projects’ technical standards, and to better understand the social dynamics affecting tree planting and management. In addition, the role played by forests and woodlands—especially tropical moist forests—in housing biological diversity and removing carbon dioxide from the atmosphere has become better understood.

17. The new policy calls for, first, a multisectoral approach to forestry development. Programs for agricultural intensification, rural job creation and family planning are all needed to reduce the pressure to over-harvest forests. Second, projects that use land will be designed to minimize the impact on forests. Finally, forestry programs will concentrate on three key areas: promoting policy reforms to encourage sustainable land use instead of deforestation; expanding forest plantations and rural woodlots, and protecting and expanding parks and forest reserves. Before lending for forestry development, the Bank and IDA will ensure that a country’s policies encourage the sustainable use of forests and that an environmentally sound development plan is in place. The policy also precludes World Bank and IDA support for commercial logging in tropical moist forests. By the end of FY92, a directive will be issued to staff on how to implement the forest policy in project work and sectoral policy dialogue.

18. The Bank publishes a series of technical papers written by staff members to disseminate their experience in handling particular issues in project design. Many of them treat environmental topics, and most contain practical guidelines for task managers to use in designing projects. Recent topics include: environmental considerations for port and harbor developments; strategies for watershed development in Asia; wildlife resource management in Africa; agroforestry in the tropics; environmental components for water supply and sanitation projects, and integrated pest management in African agriculture. (See Box 2)

19. Staffing and Organization. Until the mid-1980’s, the World Bank had only a small specialized staff in a central unit to handle
Box 2: Integrated Pest Management in African Agriculture

Integrated Pest Management (IPM) is a strategy for controlling crop and livestock pests that relies on biological methods and agricultural practices, introducing pesticides only when non-chemical methods fail to keep pest populations to tolerable levels. By limiting pesticide use, it can reduce environmental problems like chemical residues in water, soil and food; health hazards to farm families, and elimination of desirable insects and plants. IDA projects in ten African countries are financing research, trials, and training of extension workers on IPM. A technical paper for staff and borrowers explains the research findings and institutional arrangements that are needed to ensure that IPM can be successfully introduced.

Environmental Portfolio

20. Even before the mid-1980’s, when environmentally sound development became an explicit goal of IDA’s programs, many kinds of operations generated environmental benefits. Projects for forest plantations, dryland agriculture, water supply and sanitation and natural gas development, for instance, usually bring environmental improvements in tandem with their economic benefits. More recently, there have been several operations each year whose main or only objective is environmental management. A complete inventory of ‘environmental’ operations also includes projects designed to improve resource management and conservation in the agriculture, mining, energy and water sectors. As of March 1992, there were 60 IDA or IDA/IBRD blend projects under implementation.

Box 3: A Sampling of Recent Environment Projects

An Industrial Pollution Control Project in India will finance plants to treat waste water from chemical factories and will upgrade the capabilities of pollution monitoring agencies. In Burkina Faso, the Environmental Management Project will help rural communities to design and implement plans for sustainable management of land, water and natural resources. The urban environment of Beijing will be improved by a project to treat waste water and control industrial air pollution. District heating using hot water pipes will be introduced to replace the polluting coal boilers in apartment buildings. Tanzania’s Forest Resources Management Project will finance the making of forest maps using satellite imagery. The maps are needed to identify priority areas for conservation. The project will also introduce a new system for collecting royalties from people who lease public forest land, and will give communities more control over local forests.
whose primary objective is environment or forestry, and an additional 115 operations aimed mainly at natural resource management. These projects represent US$5.5 billion in IDA financing. The table below summarizes these projects by region and sector. An additional 13 projects in these categories are expected to be approved by the end of FY92. Finally, recognizing the threat posed by rapid population growth to sustainable resource use, IDA is increasing its support for family planning activities. During FY91, ten IDA projects were approved that had population components, compared to four in FY90 and one in FY89.

21. Besides these free-standing projects, there are scores of environmental components in projects of all types. These components support activities as diverse as research on grass hedges for soil conservation; training of teachers in environmental science; surveys of groundwater quality, and construction of facilities to recycle oil from railway engines. In many cases, these activities have been included in projects to handle issues identified by the project environmental assessment or by the application of other guidelines described in paragraph 15 above. These components are embedded in IDA projects in virtually every sector and are thus difficult to enumerate.

22. Recent environment and forestry projects in India, Malawi, Tanzania, Kenya and Madagascar represent a second generation of projects that build on the lessons of earlier operations and studies. In particular, they address sectoral issues like pricing of forest products, land use laws and institutional development. In Tanzania, past Government interference with customary land use rights has made rural people reluctant to make long-term investments in tree planting. The 1991 Forest Resources Management Project will therefore support the Government’s program of turning over land titles to villagers. The Maharashtra Forestry Project in India calls for the state’s forestry administration to increase the involvement of local non-governmental organizations and private enterprises in planting and managing forests. The Government has been selling timber from its plantations at below-market rates, thus undercutting private commercial wood growers; under the project, administered prices will be raised to market levels.

Global and Regional Initiatives

23. Some environmental problems transcend national boundaries: pollution of international waters, global warming, ozone depletion and loss of genetic diversity must be tackled on a
transnational or even global level. The Bank Group has taken a leading role in executing multi­
national and global environmental activities that are financed by many multilateral and bilateral
donors. Along with UNDP and UNEP, it implements the Global Environment Facility, which funds investments in developing countries to control the global problems of greenhouse gases, loss of biodiversity and ocean pollution. More than half of the planned investment projects are in IDA recipient countries. The Bank is also an implementing agency for programs to protect the ozone layer under the terms of the Montreal Protocol.

24. The Mediterranean Environmental Technical Assistance Program sponsors the preparation of projects and institutional reforms for management of water resources and coastal zones and prevention of pollution in ten countries around the Mediterranean. A similar program to protect the waters of the Danube and its tributaries has recently been launched with financing from several bilateral and multilateral donors. Another multi-country initiative aims to reverse the environmental decline of five of Asia's megacities—Beijing, Bombay, Colombo, Jakarta and Manila. The Bank and the UNDP are carrying out this Metropolitan Environment Improvement Program, which funds studies and research on urban pollution and waste management.

25. The unique biological endowment of the Amazon rain forest is recognized as an asset of global value. Donors have therefore established a trust fund, administered by the World Bank, that will support grassroots initiatives to reduce predatory deforestation and develop sustainable production systems. The agricultural research centers that belong to the Bank-supported Consultative Group on International Agricultural Research have mounted an international effort to collect and preserve plant germplasm in order to protect the diminishing genetic base of world agriculture. These centers are also increasingly emphasizing research on farming systems and techniques that are ecologically sustainable—for example, the use of integrated pest management techniques on tropical crops.

Conclusion

26. The environmental activities described in this paper represent a significant reorientation in IDA's work—one that has taken place over only about five years. The integration of environmental
thinking into all aspects of the development process has become a permanent feature of IDA’s approach to development. IDA will continue to give increased emphasis to projects that generate environmental benefits. Attention to good project design and to policy reform will be maintained and strengthened.

27. More still needs to be done to make the environment a central focus of IDA’s country strategies and economic analysis. To do this, IDA will require sharper analysis and recommendations about the ways trade, fiscal and other economic policies interact with better environmental management. Other directions for the future evolution of IDA’s role include:

- providing more support for institutional development, so as to increase IDA recipients’ capacity to set and maintain suitable environmental standards and policies;

- designing operations so as to give local communities a bigger role in resource management;

- supporting the development and transfer of new technologies for resource management and environmental protection.