Development and the Environment: A Global Balance

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Mr. Chairman, Ladies, and Gentlemen:

An old saying common to rural communities in many parts of the world reminds farmers that the land which they till, on which they sow, and from which they harvest is actually leased from their grandchil-
dren. “The rent you pay for land,” the saying continues, “is your obli-
gation to protect and preserve its fertility.” As with land, so too is it
with the rest of the natural environment on which human survival and
progress depend. Today’s needs have to be weighed against tomorrow’s
obligations or our children will be poorer than we are.

The human family, in its quest for change, engages in activities that
can go on forever. The environment, however, is finite. This disparity
creates an environmental challenge—the critical need to reconcile a po-
tential conflict between human effort and environmental constraints. If
our response to that challenge is not defined with clarity, and if the
human family does not act in unity to satisfy the need for constant
renewal of our environment, we will collectively falter and stumble to-
ward a bleak tomorrow.

This environmental challenge is directly relevant to the World
Bank’s primary mission: supporting change in developing countries. De-
velopment is change. Disadvantaged societies that have not experienced
the benefits of development, that have not known change, and that lack
the resources to undertake change are themselves the victims of pollu-
tion—the pollution of poverty.

The World Bank has been entrusted with the responsibility to help
rescue the world’s poor from that form of pollution. The Bank’s fight
against poverty, therefore, is at the core of our mission. We will not
turn away from that mission, but we do have to ensure that change is
constructive and does not destroy the resources on which human pro-
gress is based.

Thus, reducing poverty and protecting the environment are related

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vestment Guarantee Agency. Mr. Conable delivered this speech on September 11,
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Human Response Toward Sustainable Development.
aspects of the same paradox and must be as carefully and accurately integrated in human action as they are in ecological reality. Development that is not ecologically sustainable is not development at all, but only an illusion of development.

I want to thank the Government of Japan and the United Nations Environment Programme for organizing this conference and for giving us the opportunity to exchange ideas and experiences, to reexamine our priorities, to recommit our assets, and, together, to chart a course of action toward the future.

I am delighted, as well, to share the platform with such a distinguished group of panelists. Together, we have been entrusted with mantles of leadership in the arena of international development. Together, too, we share many concerns about the environment in which we live. And together, we can help to ease those concerns, not only by what we say here, but, more importantly, by how our respective institutions act.

A NEW AWARENESS

This is the first major conference of its kind in Asia. Its attraction of participants from around the globe demonstrates the depth of current interest in the care and maintenance of the fragile planet we all call our home. This level of concern was not always apparent. Just two decades ago at the Stockholm Conference on the Human Environment some expressed doubts and skepticism about similar concerns.\footnote{Stockholm Declaration on the Human Environment, in Report of the United Nations Conference on the Human Environment, U.N. Doc. A/CONF.48/14 and Corr. 1 (1972), U.N. Sales No. E.73.II.A.14 and corr., reprinted in 11 I.L.M. 1416 (1972); see Vestigo, Acid Rain and Tall Stack Regulation Under the Clean Air Act, 15 ENVTL. L. 711, 721 (1985) (discussing the achievements of the Stockholm Conference).} Attitudes have changed during the intervening years in response to ecological realities. The World Bank and others in the development community have learned that protection of the environment warrants specific and discrete emphasis. We have also learned that environmental issues cut across all developmental sectors; they are affected as much by domestic policies as by international trade practices.

A purely technical approach to the environmental challenge which is insensitive to social, cultural, and public health considerations results in a wide array of social problems. Proliferative industrial policies assail the world's climate. The basic requirement of food for ceaselessly growing populations is met at the expense of degraded soils, which in turn make future agricultural efforts more costly. Development which rests
only on exploitation of nonrenewable resources leaves us poorer in the long run. All these issues, and others, are intertwined and must be addressed.

We know that we cannot fulfill our responsibilities by merely passing around "unleavened loaves of empty words." Action, meticulously planned and rigorously assessed, must emulate our words. That, in essence, is the World Bank's approach to environmental issues as they intersect with the imperatives of development.

SOME KEY AREAS

We accept the all-encompassing nature of the environmental challenge. We believe also, however, that it is important to understand and to deal with the various components relevant to both development and the environment. I would like to discuss some of these components in more detail.

GLOBAL WARMING

"[The] greenhouse effect may be mostly hot air," reported an American magazine earlier this year in reaction to testimony in the United States Senate that "global warming, far from being a theoretical construct, had arrived with stunning certainty." Sharply contending viewpoints on this subject have already generated mythologies regarding global warming. In this exchange of viewpoints, unfortunately, some comments produce more heat than light. For this reason, I wish to review some facts.

A few long-surviving gases generated by industry and agriculture trap some of the heat which the Earth radiates after receiving energy from the sun. This warming process is similar to the way in which the wrap-around glass enclosures of greenhouses, built for horticulture, trap heat. This phenomenon, therefore, has become known as the "greenhouse effect." Similarly, the heat-trapping gases are widely described as "greenhouse gases."

From the time of the industrial revolution, scientists have feared that man, by increasing emissions of greenhouse gases, would cause an unnatural warming of the Earth's climate. In 1896, for instance, the Swedish Scientist Svante Arrhenius cautioned that sometime in the "next century," industrial emissions would cause a global warming of 3.2 to 4 degrees Celsius. This hypothesis is the precedent of today's

Of course, on one level, the greenhouse effect is natural to our planet and essential to human life. If there was no greenhouse effect at all, if greenhouse gases did not trap a certain amount of heat, the Earth would be more than thirty degrees Celsius (sixty degrees Fahrenheit) cooler. Much of the world would be a bleak, extensive tundra, and life as we know it would not exist. When emissions of heat-trapping gases increase excessively as a result of human activity, however, the Earth is unnaturally warmed. It is this additional warming that could raise global temperatures to levels which would threaten human life.

Some scientists are convinced that the twenty-five percent increase in carbon dioxide emissions since the earliest days of the industrial revolution has already resulted in a steady increase in global warming. They are concerned that, unless this trend is mitigated, temperatures may increase five to eight degrees Fahrenheit in higher altitudes. While such a change may not seem significant, it would be considerably more than the warming which has occurred since the Ice Age, and greater than any temperature change in human history. If this warming were to happen, instead of the tundra that would exist if there were no global warming at all, parts of the world would be scorched and others would be flooded. The number of natural disasters would increase. Some studies predict simultaneous crop failures in all those regions now considered the bread baskets of the world.

On the positive side, the now cold and unproductive lands in the north could be warmed into productivity. Some arid lands might be made fertile as a result of increased rainfall. Overall, however, life as we know it would be altered drastically; whole ecosystems and species would be threatened and, in some cases, extinguished. Among human communities, the poor would be the hardest hit, because they have the least resources with which to adapt to change.

In reviewing these facts, and some of the consequences derived from

3. See Wirth, Climate Chaos, 74 Foreign Pol'y 3, 7-13 (1989) (detailing the consequences of greenhouse warming).
5. Id.
7. Id.
8. Wirth, supra note 3, at 11-12.
9. Id.
10. Id.
them, it is not my intention to be a voice of gloom. The world’s “doomsday watch” needs no help from me. Without minimizing the dangers I have described, I must add, therefore, that scientists cannot forecast when exactly the expected climatic changes might occur. Some scientists do not predict such catastrophic changes. Clearly, more research is needed if we are to understand fully the implications of global warming for both developing and industrialized countries.

The possible risks are too high to justify complacency or evasion. The international community cannot sit back, hoping that these problems will somehow pass us by. We must be prepared to avert the worst, even as we desire the best. “Chance,” as Louis Pasteur observed, “favors the prepared mind.”

Accordingly, the World Bank closely monitors research on greenhouse gas emissions and climatic change. We will continue to assess the economic and social impact of this phenomenon and its impact on natural resources. We will actively assist developing countries to formulate appropriate development responses to global warming concerns. In particular, we will support developing country programs to move to cleaner fuels, processes, and systems.

ENERGY

The three major greenhouse gases are carbon dioxide, methane, and chlorofluorocarbons (CFCs). Of these three, carbon dioxide has the highest cumulative contribution to global warming, accounting for almost half of the world’s greenhouse effect. Carbon dioxide, as a global warmer, is produced by the burning of fossil fuels—coal, oil, and natural gas—and by deforestation. Methane accounts for some twenty percent of the greenhouse effect and is created, for example, by the decay of industrial and agricultural waste and by the extraction and transportation of fossil fuels. CFCs are man made and currently account for up to seventeen percent of the greenhouse effect, but this contribution is expected to rise to as much as twenty-four percent.

Common sense tells us that if carbon dioxide is the largest contributor to global warming, our most appropriate corrective action would be to reduce the amount of that greenhouse gas released into the atmo-

11. See Mintzer, supra note 6, at 446 (stating that the effects of the accumulation of greenhouse gases might not occur until the end of the next century).
13. Id. at 6-13.
14. Id. at 4.
sphere. This brings us to the issue of energy and energy policy because emissions from the industrial and domestic use of fossil fuels as energy are the largest source of carbon dioxide.¹⁵

Energy, from whatever source it is derived, touches most aspects of social and economic activity in the world. Muscle-driven hand-pumps that provide African and Asian villages with water are as important to their users as petroleum-fired factory furnaces are to industrialized societies. The particular form of energy used by society, and for what that energy is used, is sometimes seen as what divides “less developed countries” from those that are “developed.”

As Barbara Ward commented, “in this century, we have virtually identified the whole successful functioning of the economic system with a steady increase in our consumption of energy.” This identification, she argued with some asperity, has created an unwholesome “interdependence between prosperity and energy use.”

The quest for prosperity is a universal human impulse. The poor want to be rescued from their wretchedness. The rich want at least to remain rich, if not get richer. Countries hold these same impulses. Developing countries striving toward prosperity need many transformations. As they seek to revitalize their economies, regardless of the dimensions of that revitalization, their demand for energy will increase. The extent to which that increase will be based on a greater use of fossil fuels will determine the severity of the increased threat to the environment.

At the height of the “oil crunch” of the 1970s, an Asian politician commented that many developing countries faced what accountants might call a “double bottom line.” On one hand, he explained, developing countries had to transform their economies so that productivity would be increased, and wealth would be enhanced and distributed. On the other hand, they had to do so at a time when nonrenewable energy was “both scarce and expensive.” The addition of the environmental challenge creates the phenomenon of a “triple bottom line,” requiring that energy-based development should not be accomplished at the expense of further damage to the environment, the provider of many primary products which drive that development.

Can this be achieved? Developing countries have been advised not to replicate the environmentally unsound policies and practices of the in-

The industrialized world. The World Bank itself can be used to transfer the knowledge learned from these mistakes. Unless such advice is accompanied by viable alternatives, however, it implies that developing countries should stagnate in the interest of overall environmental protection. The world's richer nations, for their part, would be free to maintain industry-based wealth and to engage in environmental depredation. This is unacceptable. Developing countries cannot be excluded from change and industrialized countries cannot continue to despoil the environment.

What then should be our advice? The Bank supports, as a corollary of development, the move toward a higher generation of energy. Such a move, however, must be accompanied by greater end-use efficiencies. We lend for conservation programs. We monitor the increased use of renewable energy. We urge, too, that over the long term, science and industry must adapt to forms of energy, the use of which does not harm the environment.

Until we develop environmentally safe fuels, however, developing countries will have to satisfy their energy requirements largely with existing fossil fuels. The choice of fuels then becomes crucial. Expanded use of natural gas, which because of its efficiency releases substantially less carbon dioxide than oil or coal into the atmosphere, will significantly reduce the harmful emissions.

The World Bank is prepared to take an active leadership role during this transitional phase. We will take every opportunity to reiterate the need for greater energy conservation and efficiency in all countries to reduce further the use of fossil fuels. Only a global response can deal with a global problem. None of the proposed adjustments is cost free. The various actions that developing countries will need to take in their own interest, and in the international interest, require substantial additional costs. These costs must be added to the overall development budget. This is not a matter of funds being redirected from one set of development objectives to the other, but of genuine additional expenditures. The increased attention these issues are receiving in wealthier countries, including Japan, encourages me, and I urge them to support developing country energy programs with the required additional resources. These measures will help satisfy the yearnings of developing countries for change while they help protect the environment.

Population

We must remember, however, that even without considering the economic change in developing countries, the anticipated increase of global
population will result in a greater demand for energy. If, for instance, the average amount of energy used per person throughout the world in 1985 remains unchanged, a fifteen percent increase in energy would be required by the year 2000 to meet the needs of a world population, which by then will stand at over six billion. This increase in energy demand is just one anticipated consequence of unchecked population growth.

Earlier this year, the keynote speaker at the Fifth Asian Parliamentarians Meeting on Population and Development said that population growth is one of three major problems the international community confronts as it prepares for the twenty-first century. The other two are world peace and world economic stability, both of which, in his view, are receiving attention. Population issues, he argued, are “more fundamental and their resolution more difficult.”

The figures speak for themselves. In one 130-year period the world’s population grew from one billion to two billion, but, at present rates, the world’s population will jump from its present level of five billion to some six billion by the year 2000. Ninety percent of this expected increase will be born in the developing regions of the world. The resulting additional demands placed on the resources of those countries will be formidable.

This inflated population will be too large in relation to capital stock—public and private, physical, biological, and human. Infrastructure and other social overhead capital will probably lag the most. Many countries will be pushed further and become more tightly locked into the poverty trap. They will lack the financial resources to meet day-to-day demands of their increased numbers, let alone undertake measures to improve the quality of life and growth prospects for the future. Sickness, malnutrition, and numerous other consequences of poverty will be overwhelming.

Unchecked population growth will aggravate the problems of both urban and rural environments. In urban areas, water and air pollution, sanitation, and waste disposal will become even more critical. Both urban and rural demand for more food will cause creation and exploitation of more agricultural land in rural areas. Forests will be destroyed; flora and fauna will perish. In attempts to increase its productivity, existing agricultural land will be worked harder, depleting it even more.

It is generally acknowledged that unchecked population growth and threats to the environment, poverty, and underdevelopment are closely linked. The recent Caracas Declaration commemorating the 25th anniversary of the Group of 77, for example, notes that “poverty and environmental degradation are closely interrelated.” Acknowledging the re-
lation, however, is only a first step. We must undertake programs which help break that linkage.

The World Bank is well aware that population changes and fertility decreases in several countries have often followed economic and social improvement. Unfortunately, unprecedented rates of population growth in many developing regions of the world make it clear that the challenge is too great for us to await the impact of general social improvement on population growth rates.

In some countries of Africa, Asia, and Latin America, population will double every twenty to thirty years if present trends continue unchanged. Such high rates of growth imperil the very socio-economic development that can bring about a reduction of population. We cannot neglect aspects of development that influence population trends, but we need also to support programs that directly influence fertility rates. In fact, family planning programs have succeeded even in adverse socio-economic conditions.

Despite such successes, it is estimated that some 500 million couples worldwide have no access to modern methods of fertility regulation. Such a trend cannot be condoned in an international community which accepted family planning and the ability to control one's fertility as basic human rights twenty-one years ago at the Teheran Conference of 1968. Several conferences and declarations since then have restated the point, drawing particular attention to the fact that the role of women is a central, perhaps the central, issue in population policy. Any effort to improve the status of women which does not enable them to have some control over their fertility is only a partial effort.

The role and rights of women, information about the availability of family planning, the voluntary nature of family planning, education, health, employment, and income are all strands that must be effectively intertwined. To achieve this, the global population issue must become a high priority on the global agenda. The World Bank will pursue this objective vigorously in the future, as it has in the past.

INDUSTRIALIZED NATIONS

Another key component relevant to both development and the environment is the responsibility of industrialized countries.

An Asian head of state recently asserted that industrialized countries should shoulder a larger responsibility for preserving the world's environment because, in effect, their economic policies and lifestyles "constitute the greatest threat to the environment." There is logic in the argument that those who have already imperilled our common heritage
should compensate for the damage they have done. It is also true that industrialized countries have the greatest research capacity, particularly in their private sector, to grapple with the technical aspects of environmental protection.

I do not mean to suggest that developing countries should feel free to devastate the environment because some industrialized countries have done so. The care and health of our planet is a collective, global responsibility.

Having said this, however, it is true that many aspects of economic activity and lifestyle in the industrial countries contribute to the world’s accumulated pollution and resource depletion problems. North America and Europe, for example, together are responsible for nearly three quarters of the carbon dioxide emissions that contribute to global warming, while accounting for only about eight percent of the world’s population. The developing world, almost eighty percent of the world’s population, is responsible for only seven percent of the industrial emission of carbon dioxide.

Industrialized countries are also primarily responsible for the environmental damage caused by CFCs. Western industrialized countries are now planning to phase out the use of CFCs by the year 2000, but other nations have just begun large-scale refrigeration programs. The World Bank supports a total phasing out of CFCs from use in all countries.

How industrialized countries can and do respond to the environmental challenge is not characterized by unbroken gloom. I visited Tokyo in 1971 and was saddened to see the tops of buildings obscured by smog. Today, Japan is both domestically and internationally sensitive to the links between growth and environmental good health. Japanese industry uses less energy than its counterparts in many other countries to produce the same or similar goods and services. Japan’s endorsement of antipollution policies, its development of energy-efficient technologies, and its decision to emphasize environmental activities in its international development assistance programs have provided the world with a commendable example of how an industrialized nation can adapt its own policies to meet the environmental challenge.

As industrialized countries face the challenge of fulfilling their own responsibilities, perhaps they might think not only of altruism, but also of the rewards to be gained from pursuing “environment friendly” policies. A recent editorial in The Economist put it well: “The country that pioneers the taxes and charges that make polluters pay will enjoy a
boom as purveyor of greenness to a dirty world."

AGENDA FOR ACTION

Mr. Chairman, Ladies, and Gentlemen:

At this point I want to make a brief personal comment. When I became President of the World Bank, I selected the environmental challenge for special emphasis. I wanted the World Bank to take a lead role in confronting the global question of how to harmonize the imperatives of development and environmental care. Then, as now, I was convinced that through our efforts, through our influence on other development agencies, and through the redirection of our intellectual resources, we could create an appropriate and potentially effective global agenda.

I am proud of the progress we have made. Even though some of the most difficult tasks lie ahead, we are well beyond any concept of treating the environment in a superficial, cosmetic, or public relations fashion. We are committed to environmental issues, and what is more, this commitment does not detract at all from our primary mission of global development.

We have increased lending for environmental, population, and forestry programs; increased resources devoted to the environment by more than 100 staff years; and fully integrated environmental issues into the Bank's approach to development.

We need to do more, however, and as we progress with our agenda, I expect that in the next three years World Bank support for free-standing environmental projects will be near $1.3 billion. Even this may not be as important as our increased efforts to integrate environmental values into our ongoing development program.

In the course of reviewing some key areas of the relationship between development and the environment, I have already described to you the thrust of the Bank's major activities since the environment was selected for special emphasis. In addition, during this last year, the World Bank's Board of Directors approved more than 100 projects, thirty-five percent of all Bank and International Development Association (IDA) projects, with significant environmental components. Sixty percent of the projects approved in the agricultural sector included environmental elements. Other sectors with significant environmental work include energy and power, transportation, water supply and sewerage, and urban development. We will do still more in the next twelve months.

With funds recently made available by Japan, we have inaugurated a

$5 million Environmental Technical Assistance Program to accelerate the preparation of environmental projects. There is an urgent need for more such funding mechanisms. Five months after the technical assistance program was announced, World Bank staff members have reviewed and approved requests totalling $23 million for immediate action.

We estimate that in any given year the resources required to meet the technical assistance demand for the preparation of environmental projects could be in the range of $60 to $80 million. Funding and quick decision making by both donors and developing countries are essential prerequisites for the preparation and implementation of environmental programs.

We have also designed Environmental Assessment Guidelines that strengthen the capacity of developing countries to deal with environmental problems. These guidelines ensure that developing countries and the World Bank systematically take environmental concerns into account at the earliest stage of designing development projects. Groups likely to be affected by the projects, as well as local nongovernmental organizations (NGOs), will also participate fully in this assessment process.

In the energy sector, the Bank’s approach is to assist developing countries in mitigating the emissions of greenhouse gases without curtailing development. Conservation and energy-efficiency are both important aspects of this effort. We have created an Energy Efficiency and Strategy Unit to address financial and policy issues. A Household Energy Unit concentrates on the most suitable means of delivering traditional and other, more modern forms of renewable energy to the homes of the world’s poor and to rural industry. Additionally, today, I am pleased to announce that we are establishing a Gas Development Unit which will promote the economic production, consumption, and export of natural gas—the least polluting of fossil fuels.

I am also pleased to announce a tripling of our lending to forestry in the next few years and more direct involvement by World Bank staff in the Tropical Forest Action Program. The Bank will begin providing technical contributions and mission leadership for sector missions and is renewing its commitment to working with co-donors (bilateral donors, the Food and Agriculture Organization, the United Nations Development Program, and the World Resources Institute) in all other aspects of this action program.

The Consultative Group on International Agricultural Research (CGIAR)—of which the Bank is a co-sponsor and donor—has re-emphasized the sustainability of agricultural production systems as one of
its goals. At its mid-year meeting held last May in Canberra, the CGIAR included tropical forestry in its mandate. At that time, the government of Japan indicated its willingness to increase its financial contribution to support the work of an expanded CGIAR. Research on tropical forestry and enhanced food production will be carried out at CGIAR centers in the wider context of renewable resource management and utilization.

I have already stressed the critical links between population, development, and the environment. The World Bank and IDA have lent over $500 million for population control projects over the last five years. We will raise this amount to over $800 million in the three years from 1990 to 1992. We will also expand our funding for health, education, and other sectors to help support efforts to curb population growth in developing countries.

During all of these activities, the Bank has sought the cooperation of NGOs. This cooperation has benefitted the projects greatly. As the annual meetings of the World Bank and International Monetary Fund approach, the NGO community will give much attention to the manner in which we address these issues. Some may say that we have made no progress, that we have not changed. They are wrong. Others may say that progress is slow. I am telling you now that we intend to accelerate our efforts and that their momentum will be greater if we are able to work in partnership with the worldwide NGO community.

TOWARD A GLOBAL BALANCE

Mr. Chairman, Ladies, and Gentlemen:

The World Bank's experience reinforces the view that environmental factors cut across all development sectors. It might even be said that they affect all aspects of human endeavor which make up the "infinite unity of our mutual needs."

Conservation, energy efficiency, natural resource management, population and family planning, resource transfers, international marketplace justice, research and development—all of these, and many others, are part of the environmental challenge. The development challenge, however, is equally compelling. The numbing statistics of poverty need no repetition, but they cannot be ignored. As I have stated today, we can meet both challenges effectively only when we are able to create a global balance in which a diversity of interests are reconciled. This is a responsibility for the human family as a whole, not just for its poorer members.

Currently, nations, regional organizations, other multi-nation group-
ings, nongovernment organizations, and international institutions are all active in a vibrant environmental debate. The Group of 77 has placed the issue high on its agenda, and in a rare example of North-South concurrence, so too, has the Group of Seven. Words and good intentions alone will not produce results, however. Practice must match theory.

I urge, therefore, that all of us—institutions, nations, and individuals—work together to define the correct global balance between human aspirations and the human environment. Having done this, can we rededicate our resources and our efforts to creating and maintaining the balance?

As we do so, we might profit from Gro Harlem Brundtland's advice that "[O]nly growth can create the capacity to solve environmental problems. But . . . growth must be managed to enhance the resource base on which developing countries all depend. We must create external conditions that will help rather than hinder developing countries in realizing their full potential."

The World Bank fully agrees with this summary. We do not believe that development and environmental protection are mutually hostile objectives. One cannot be sacrificed for the other. Working toward new models for development which combine both objectives into a creative synergy exemplifies the kind of change to which the World Bank is irrevocably committed.