SUSTAINABLE DEVELOPMENT AND THE EUROPEAN BANK FOR RECONSTRUCTION AND DEVELOPMENT

Draft Working Paper March 18, 1991

By

Chris Wold & Durwood Zaelke



Center for International Environmental Law 1621 Connecticut Avenue NW, Suite 300 Washington DC 20016-2512 Phone: (202) 332-4840 ● Fax (202) 332-4865

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TABLE OF CONTENTS

T	T		1			
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- II. Value of the Environment
- III. Futurity
- IV. Equity
- V. Accounting Mechanisms
- VI. Project Appraisal
- VII. Achieving Sustainable Development

¹ Law Associate, The Center for International Environmental Law-U.S. (CIEL).

 $^{^2}$ President, CIEL—U.S., Adjunct Professor and Scholar-in-Residence at Washington School of Law, The American University.

SUSTAINABLE DEVELOPMENT AND THE EUROPEAN BANK FOR RECONSTRUCTION AND DEVELOPMENT

I. Introduction

The economic policies of the former Central and Eastern European countries serve as a stark reminder that environmental protection cannot be sacrificed (or severely degraded) for immediate economic goals. Unemployment in many regions is the direct result of factory closings initiated because they could not operate efficiently without massive government subsidies. Estimates of health care costs from pollution reached 11% of GNP in the Soviet Union in 1987 (US\$330 billion); Poland is paying 10 to 20% of its GNP each year because of pollution; and Czechoslovakia 5 to 7% (\$192 million annually on crop damage alone). Out of Czechoslovakia's economic and environmental deterioration grew revolution and the possibility to substantially improve "the quality of the living environment through a permanently sustainable development. Polish experts concluded that sustainable development could solve its country's ecological crisis, and that Poland's challenge is to "invent those institutions that promote a sustainable society: a society that effectively blends economic development, environmental protection and political freedom for the present populations and future generations."

The EBRD is the first multilateral development bank to commit itself in its articles of agreement to "environmentally sound and sustainable development." To become meaningful, the EBRD must define the term and create provisions to achieve it. Conceptually, sustainable development is not difficult to understand. In simplest terms, present generations must not consume more than they provide or leave for their heirs. It discards the common economic practice of giving natural resources value only in the very short term in favor of a method which manages and values

³ H. FRENCH, GREEN REVOLUTIONS: ENVIRONMENTAL RECONSTRUCTION IN EASTERN EUROPE AND THE SOVIET UNION 10 (1990) (Worldwatch paper No. 99), citing Feshbach and Rubin, Why Ivan Can't Breathe, Washington Post, Jan. 29, 1990 (Soviet data); A. Kassenberg, Environment Situation in Poland (unpublished paper 1989) (Polish data).

⁴ J. VAVROUSEK, THE ENVIRONMENT IN CZECHOSLOVAKIA 69 (Report of the Federal Committee for the Environment (May 1990).

⁵ VAVROUSEK, supra note 4, at 7.

⁶ ENVIRONMENT AND DEVELOPMENT FOR POLAND: DECLARATION OF SUSTAINABLE DEVELOPMENT ¶¶ 6, 44, vi (Blueprint for International Workshop on Institutional Design, Sept. 17-20, 1990, Bialowieza, Poland (hereinafter cited as ENVIRONMENT AND DEVELOPMENT FOR POLAND).

⁷ Agreement Establishing the European Bank for Reconstruction and Development, art. 2(vii) (May 29, 1990), 29 I.L.M. 1077, 1084 (1990).

depleting finite natural resources for future generations.8

Because sustainable development recognizes that the economy and the environment are interrelated, economists and environmentalists alike have been forced to reshape their thinking about development and environmental protection. Economic development can occur only through consumption of natural resources; thus, "the development potential of a country, its opportunities and limits, are determined by the quality of the environment." Economic growth, the measure by which we traditionally measure the health of an economy, is a narrow concept concerned only with rising consumption. Development, on the other hand, is a broader concept that includes the quality of life -- the health of the population, educational standards, the degree of poverty, and general social wellbeing -- characteristics which previously fell outside the bounds of economic calculations because they required nonmarket value judgments.

Environmentalists, as well, must rethink the role of development in protecting the environment, and increasingly appreciate the potential for sustainable development to help alleviate environmental degradation and solve environmental problems. What is becoming clear is that environmental degradation is a "survival issue." Part of sustainable development implies alleviating poverty, particularly where people are forced onto marginal lands and unsustainable ways of life. Sustainable development thus "leaves behind sterile growth/no growth debate's and acknowledges that some types of development and technology can improve peoples' quality of life.

Nonrenewable resources such as energy and raw materials are wasted in the production of goods with short service life for short term profit. See VAVROUSEK, supra note 4, at 84. See also, EBRD Draft Environmental Policy ¶ 1 (13 March 1991) ("Major environmental improvements and direct restorative investments are pre-requisites for the successful transition to a market-oriented economy.")

⁹ D. PEARCE, A. MARKANDYA, & E. BARBIER, BLUEPRINT FOR A GREEN ECONOMY xiv (1989) (hereinafter cited as GREEN ECONOMY).

¹⁰ Environment and Development for Poland, supra note 6, at Appendix (¶ 1).

PEZZEY, ECONOMIC ANALYSIS OF SUSTAINABLE GROWTH AND SUSTAINABLE DEVELOPMENT v (1989) (World Bank Environmental Working Paper No. 15).

¹² Green Economy, supra note 46, at 1.

¹³ Mathews, *The New Dogma of Environmentalism*, Washington Post, Jan. 3, 1991. (Sustainable development "leaves behind sterile growth/no growth debates" and acknowledges that some types of development and technology can improve the quality of life.)

¹⁴ *Id*.

¹⁵ *Id*.

The idea that sustainable development provides a solution to the world's environmental woes began in the 1980's. Since that time, attempts to define sustainable development have been inconsistent, almost making the term meaningless. The Brundtland Report definition -- development that "meets the needs of the present without compromising the ability of future generations to meet their own needs" -- has become the starting point for most discussions. From this definition and others, recent literature has deduced three principles which most aptly describe sustainable development: futurity, equity, and the value of the environment. 19

II. Value of the Environment

Of fundamental importance is recognition that the economy and the environment in which we live are wholly interrelated; they cannot be considered apart from one another. "There is an interdependence both because the way we manage the economy impacts the environment, *and* because environmental quality impacts on the performance of the economy." Quality of life indicators derived from natural, built, and cultural environments therefore deserve greater emphasis. ²¹

To understand the connections between development and the environment, it is useful to put environmental quality criteria in economic terms. Although this analogy is not perfect, and, in fact, many find placing monetary values on the environment offensive, it may be the best way to demonstrate that environmental services are not free. As noted previously, pollution is costing Central and Eastern European countries hundreds of millions of dollars, and in the case of the Soviet Union, over \$300 billion. In contrast, the United States avoided \$26 billion in pollution damage (64% of which was attributed to human health benefits) through implementation of environmental legislation. As a stributed to human health benefits through implementation of environmental legislation.

¹⁶ See Id.; Green Economy, supra note 9, at 1.

¹⁷ PEZZEY, supra note 11, at 2 (quoting T. O'RIORDAN, The Politics of Sustainability, in ENVIRONMENTAL MANAGEMENT: OUR COMMON FUTURE 8 (R.K. Turner ed. 1988).

 $^{^{18}\,}$ The World Commission on Environment and Developent, Our Common Future 8 (1987).

¹⁹ GREEN ECONOMY, supra note 46, at 2.

²⁰ Id. at 4 (emphasis in original).

²¹ *Id.* at 2.

²² *Id.* at 81.

²³ See supra notes 3 & 4 and accompanying text.

²⁴ Green Economy, *supra* note 9, at 59, citing M. Freeman, Air and Water Pollution Control: A Benefit-Cost Assessment (1982).

Measuring environmental services and environmental quality shows us that they can be used only at a cost. It also demonstrates that most often, they carry positive values; people value greatly clean air and water, human health, wilderness areas, and other environmental services. Moreover, environmental concerns are placed in the decisionmaking process and given the same consideration as traditional economic costs and benefits.

Once a value is attached to a given environmental service or environmental quality, such as human health or wilderness areas, an equation can be developed to determine whether a project should proceed. In simple terms, development should not proceed if the benefits of development are less than the costs of development plus the benefits of preserving the environment.²⁵

Different methods are used to measure benefits of environmental quality. The contingency value method measures a person's willingness to pay for a benefit. Through surveys, an average price which citizens are willing to pay can be derived for protecting whales, for example. The hedonistic price method measures, in simple terms, the effect of pollution on property values. It determines, for example, property value differences before and after an industrial facility which emits sulfur dioxide (SO₂) is built in a given area. A third method, called a travel-cost model, measures the opportunity cost in time and money of using an environmental amenity. For example, it evaluates how much salary a person is willing to sacrifice in order to visit a national park.

Nevertheless, until a great deal more is understood about how to measure environmental costs and benefits, there may be dangers in assigning precise numbers to the environment, especially as precise numbers often appear more sophisticated and reliable than they are. For example, it may be difficult to assign a meaningful number to an event such as a nuclear meltdown which has a low probability but catastrophic consequences. Global threats to our life-sustaining systems such as the atmosphere are also difficult to simplify into a precise number.

III. Futurity

The short sightedness which traditionally has dominated economic thinking no longer applies. The very notion of sustainability implies extending forecasts far into the future. Sustainable development evaluates advantages and disadvantages of a project in the short term (the next 5-10 years) as well as the long term (future generations).²⁷

²⁵ *Id.* at 63.

For a more complete discussion of these methods, see GREEN ECONOMY, supra note 9, at 64-74.

For example, the six Nations Iroquois Confederacy hold as a Great Law that "in every deliberation, [they] must consider the impact of our decisions on the next seven generations. "Seventh Generation," Newsletter of the Seventh Generation (May 1990).

IV. Equity

Sustainable development is concerned with providing balance; diminishing and eliminating poverty for present generations (intragenerational equity) and leaving future generations with at least an equivalent quality of life (intergenerational equity). It requires that present generations provide future generations with the same amount of "wealth" that it inherited.

There are two different types of wealth: capital wealth and natural wealth. Capital wealth includes all manmade things such as industrial complexes as well as human intelligence. Natural wealth includes all environmental assets such as air, water, soil, and wildlife. The distinction is important. The activities and environmental policy of the present generation will differ greatly depending on whether it believes future generations should be compensated with manmade wealth or natural wealth.

The better view is that present generations must provide future generations with at least as much natural wealth as the present generation. First, natural wealth supports life, whereas capital wealth consumes natural wealth, and thus, the earth's ability to sustain life.²⁸ Second, compensation with manmade wealth, although leaving future generations with at least as much wealth, presumes there is no unique amenity value in natural resources -- the value associated with walking through a forest or fishing a clear stream. If intergenerational equity considers amenity values, substitution with manmade wealth is implicitly rejected.

In addition, natural wealth suffers irreversibilities -- some natural resources cannot be replaced or restored (species extinction and loss of the ozone layer, for example). Manmade wealth, however, usually can be replaced or rebuilt more easily, though architectural heritage and ancient monuments are exceptions. Similarly, natural wealth often cannot be increased (nonrenewable resources), whereas manmade wealth can be increased and decreased.²⁹

Moreover, preservation of natural wealth for millions of people means preserving their sustainable livelihoods. Where people are living sustainably and in harmony with nature, all means should be used to protect their natural resource base and their way of life.³⁰

A growing body of international law suggests that present generations have a legal obligation to preserve natural wealth for future generations as opposed to manmade wealth. The Preamble to the 1972 United Nations Declaration on the Human Environment states: "To defend and improve the human environment for present and future generations has become an imperative goal for mankind." The text of the UN Declaration makes clear that the Preamble seeks to "defend and improve the human environment" by protecting natural wealth. Principle 2 states:

²⁸ PEZZEY, *supra* note 48, at 42-43.

²⁹ *Id.* at 20.

³⁰ In this regard, the EBRD should fund projects which promote subsistence farming and alternative small-scale agriculture. Many of the problems associated with farming in the United States are a result of machinery and fertilizer intensive farming. Farming in the United States is the most energy inefficient in the world, has lead to massive soil erosion, and contaminated water supplies.

The natural resources of the earth including the air, water, land, flora and fauna, especially representative samples of natural ecosystems, must be safeguarded for the benefit of present and future generations through careful planning or management, as appropriate.

In addition, Principle 5 states that non-renewable resources should not be exhausted,³¹ and Principle 6 protects the soil against any substance, including heat, which is discharged in excess of the environment's assimilative capacity to neutralize that substance.

Other international agreements ensure that specific aspects of the environment are protected for future generations. These include agreements protecting, marine waters, 32 wildlife, 33 and particular species in certain marine areas. 44 Others designate unique habitats as protected areas. 55

This principle perhaps states a paradox. Non-renewable resources may never be exhausted, because as they grow more scarce, the price increases and substitutes are found. Renewable resources, such as fish, can and have been exhausted by overfishing. Tuchman-Mathews, *Redefining Security*, 68 FOREIGN AFFAIRS 162 (1989).

³² 1969 Bonn Agreement for Co-operation in Dealing with Water Pollution of the North Sea by Oil; 1972 Oslo Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft; 1972 Convention for the Prevention of Marine Pollution by Dumping Wastes and Other Matter; 1973 London International Convention for the Prevention of Pollution from Ships; 1974 Helsinki Convention for the Protection of the Marine Environment of the Baltic Sea Area; 1976 Barcelona Convention for the Mediterranean Sea; 1978 Kuwait Regional Convention; 1981 Abidjan Convention for the West and Central African Region; 1982 Jeddah Regional Convention; 1982 United Nations Law of the Sea Convention; and 1983 Cartegena de Indias Convention for the Wider Caribbean Region, *cited in* EXPERTS REPORT, *infra* note 37, at 48.

³³ 1911 Convention for the Preservation and Protection of Fur Seals, supplemented by a 1957 Convention Banning Pelagic Sealing of North Pacific Fur Seals; 1923 Convention for the Preservation of the Halibut Fishery for the Northern Pacific Ocean and the Bering Sea concluded between the United States and Canada; 1931 and 1946 International Conventions for the Regulation of Whaling, cited in, infra note 37, at 48.

³⁴ 1959 London North-East Atlantic Fisheries Convention; 1959 Varna Convention concerning Fishing in the Black Sea; 1969 Rome Convention on the Conservation of the Living Resources of the South-East Atlantic; 1973 Gdansk Convention on Fishing and Conservation of Living Resources in the Baltic Sea and the Beslts; 1963 Protocol to the 1949 Washington International Convention for the North-West Atlantic Fisheries, extending the provisions of the convention to harp and hooded seals; 1972 Convention for the Conservation of antarcic Seals; 1973 oslo Agreement on the Conservation of polar Bears; and 1976 Washington Convention on the Conservation of North Pacific Fur Seals, *cited in, Id.* at 51.

³⁵ 1940 Washington Convention on Nature Protection and Wild Life Preservation in the Western Hemisphere; 1950 Paris International Convention for the Protection of Birds; 1968 African Convention on the Conservation of Nature and Natural Resources; 1971 Ramsar Convention on Wetlands of International Importance, Especially as Water Fowl Habitat; 1972 London Convention for the Conservation of Antarctic Seals; 1972 Paris Convention concerning the Protection of World

In addition, international organizations have asserted the right of future generations to natural wealth. The Economic Commission for Europe issued a draft Charter on Environmental Rights and Obligations proclaiming that present generations have a fundamental responsibility "to protect and conserve the environment for the benefit of present and future generations." Further, the Experts Group on Environmental Law of the World Commission on Environment and Development prepared a report on legal principles for environmental protection and sustainable development. Its work was both an assessment of existing international law and a proposal for new international law. Article 2, premised largely on Principles 1, 5, and 6 of the UN Declaration, obliges countries to "conserve natural resources for future generations and prevent and abate pollution and natural resource destruction. Article 3 makes clear that the duty extends beyond individual resources or species. It requires countries to protect ecosystems, ecological processes and maximum biological diversity.

V. Accounting Mechanisms⁴⁰

Managing the environment for sustainable development cannot occur without accounting for existing stocks of resources. Decisionmakers cannot develop rational environmental policy without knowing how much of a given resource exists. Comparable and reliable data are needed, and the EBRD must use its resources, as well as the resources of others, to develop and gather this data. Accounting for all resources has three purposes:

- (1) to determine what resources are available and in what quantities at any given time:
- (2) to determine the uses of each natural resource, where they are located, and how they can be transformed; and
- (3) to provide a mechanism so that a physical inventory is needed only once. After the initial inventory, present year stocks can be calculated from the previous year's stocks.

Although the task of accounting for the natural resources within a given country seems daunting (and at the regional level even more difficult), two systems of accounting have been

Cultural and Natural Heritage; and 1976 Apia Convention on Conservation of Nature in the South Pacific, cited in, Id. at 49-50.

³⁶ European Commission of Europe, Draft Charter on Environmental Rights and Obligations ¶ 2 (adopted at the Experts Meeting in Oslo, Norway, Oct. 29-31, 1990).

EXPERTS GROUP ON ENVIRONMENTAL LAW OF THE WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, ENVIRONMENTAL PROTECTION AND SUSTAINABLE DEVELOPMENT 43 (1986) (hereinafter cited as EXPERTS GROUP).

³⁸ The text of Article 3 reads: "States shall ensure that the environment and natural resources are conserved and used for the benefit of future generation. *Id.* at 42.

³⁹ *Id.* at 45.

⁴⁰ This section is a summary adapted from, GREEN ECONOMY, supra note 9, at 93-119.

developed and implemented in several countries. One approach links natural resource use to national income accounts. The other, known as the Norwegian approach, accounts for natural resources in a separate accounting framework; existing stocks are recorded and balanced each year against the amount used or exported and the amount imported.

The Norwegian approach defines natural resources by two classifications: material resources such as minerals, biological resources, and inflowing resources (e.g. solar radiation and wind) and environmental resources such as water quality. Existing stocks are recorded and balanced each year against the amount used or exported and the amount imported.

The French have refined the Norwegian approach. They classify three types of accounts. Central accounts are very similar to the basic Norwegian approach. They assess resource changes over a given year. Peripheral accounts describe the relationships between different resources and the effects of human activities on a given resource. Agent accounts note the relationship between a given resource and its intended economic use.

The monetary approach links natural resource use to national income accounts. National income accounts value goods and services produced within an economy in a given time period. A resource's value is based on individual and collective utility. Without going into detail, many adjustments must be made including expenditures for preventative and mitigative measures, and income saved but not consumed.

VI. Project Appraisal

Applying a sustainable development requirement for each project could make most development infeasible. A policy which decreases development opportunities (remember that development increases quality of life) when people must stand in lines overnight to acquire basic human needs may not be acceptable. Encouraging development which continues the environmental degradation of past policies is equally unacceptable and economically unviable.

This tension makes intergenerational and intragenerational trade offs compelling. Trade offs can occur in two ways. One method substitutes the unacceptable loss of one natural resource for the creation of the same resource or a related resource elsewhere. Where a project maximizes short term benefits but negatively impacts future generations' needs, some portion of the benefits could be held in trust for future generations. For example, a United States electric utility is planting trees in Central America to absorb an equivalent amount of carbon dioxide (CO₂) emitted from its new power station in northeastern United States. The U.S. also has a policy which allows a developer to destroy wetlands under certain circumstances provided it creates wetlands elsewhere.

Another method defines sustainable development at the program level rather than the project level. To meet sustainable development requirements at the program level, total individual benefits

⁴¹ *Id.* at 127.

⁴² PEZZEY, *supra* note 11, at 58 (citing T. TIETENBERG, ENVIRONMENTAL AND NATURAL RESOURCE ECONOMICS 432 (1984).

must, at a minimum, equal total individual costs.⁴³ Thus, if one area's economic conditions warrant less than sustainable development, a project within the same program must be built beyond the level of sustainability someplace else.

VII. Achieving Sustainable Development

Once the general accounting has been completed, the EBRD must establish a policy for achieving sustainable development. The policy must consider the long-term effects of development on the environment, and respect for natural resources, particularly those held as common resources. The EBRD must take sustainable development seriously and "make sound and well-considered ecologically-based investment decisions which prevent harm to the environment and improve or restore the severely damaged environments of Central and Eastern Europe."

A policy adopting appropriate substantive and procedural mechanisms is one method to ensure sustainable development and to protect future generations' natural resource wealth. Each project funded by the EBRD, including intermediary lending operations, should meet the following substantive criteria. If the EBRD approves a loan which fails to meet one of these substantive goals, the reasons for the exception should be fully explained stated and made available to the public.

• Finance only the most energy efficient technology. Energy is one of the most important factors in determining whether a project will be sustainable. The type of energy used and a project's energy efficiency must be considered. Use of this technology likely will increase a project's initial cost. However, energy efficiency will increase profits. The Bank should strictly avoid investments such as the U.S. Overseas Private Investment Corps' financing of General Electric's \$150 million refurbishment of 13 incandescent lightbulb factory in Hungary. Had that same amount of money been invested in compact-flourescent lightbulb factories, the Hungarian government would have saved the \$10 billion it spent in the construction of new, polluting coal-fired power plants.

The EBRD could adopt energy efficiency standards where the most energy efficient technology makes infeasible projects with overall benefits to the sustainable development.⁴⁷

⁴³ Green Economy, supra note 9, at 127; See Pezzey, supra note 11, at 58-59.

Workshop Statement ¶ 4 from THE WORKSHOP ON ENVIRONMENTAL PROTECTION AND CITIZEN PARTICIPATION IN THE EBRD'S LENDING PRACTICES (Budapest, Hungary; March 26-27, 1991).

THE UNITED NATIONS CENTRE ON TRANSNATIONAL CORPORATIONS, CRITERIA FOR SUSTAINABLE DEVELOPMENT MANAGEMENT 4 (1990) (submitted to the Commission on Transnational Corporations, April 1990) (E/C.10/1990/10).

⁴⁶ Environment and Development for Poland, *supra* note 6, at ¶ 95.

⁴⁷ See Id. at ¶ 96.

- Finance (or create incentives for) projects which use natural resources in the most environmentally efficient and conserving manner, including keeping wastes to a minimum. As with energy efficiency, resource-efficient technologies and processes, waste reduction, and pollution prevention can increase profits.
- Encourage diversification of production. Diversification removes a country's reliance on "exports of nonrenewable resources, over-reliance on monocultures, or activities that make extreme demands on the environmental assimilative capacity of the region." In addition, environmental burdens are reduced. Diversification also improves a country's economic base.
- Invest in human resource intensive project.⁵¹ Sustainable development does not reject the use of technology. It does, however, promote the use of labor intensive projects rather than technology intensive projects.
- Encourage improved quality of living for those living in impoverished conditions.⁵²
- Encourage projects which use local and renewable resources.

Moreover, EBRD funded projects should include, at a minimum, the following procedural requirements:

- Access to information. Unsustainable development often is the result of a lack of information. Governments may not realize that their policies are destroying the ability of the earth to sustain future generations. Farmers, developers, and other citizens may not know that their land-use practices contribute to ecological decline. Access to information is discussed in more detail in separate paper.
- Environmental Impact Assessment. Environmental impact assessment (EIA) is a process to assess a project's impacts on the environment and to find ways to eliminate or mitigate those impacts. The EIA should include economic, social, and cultural impacts of a project, such as production costs, health care costs, and number of days workers should expect to miss due to illness attributable to the project. EIA is discussed in more detail in a separate paper.

⁴⁸ *Id*.

⁴⁹ CARING FOR THE WORLD: A STRATEGY FOR SUSTAINABILITY 77 (Second Draft 1990) (prepared by the IUCN, UNEP, and WWF)

⁵⁰ *Id*.

⁵¹ Batie, Sustainable Development: Challenges to the Profession of Agricultural Economics, AMER. J. AGRICULTURAL ECONOMICS 1083, 1087 (Dec. 1989).

⁵² *Id*.

• Independent administrative or judicial review. The EBRD should grant the right to administrative or judicial review to challenge EBRD financed projects for compliance with operational procedures and with its Charter obligations. Independent administrative review is discussed in more detail in separate paper.