

PRINCIPLES

The sustainability principle

The first wave of modern environmentalism was associated with the counter-culture movement of the 1960s and 1970s. It grew out of traditional nature conservation concerns into an awareness of the potential for a global ecological crisis, and introduced the world to the concept of 'sustainability', of systems in equilibrium. Environmentalists and others argued that exponential growth was not sustainable – that it could not be continued forever because the planet was finite. In other words, there were limits to growth. They argued that the exponential growth of populations and industrial activity could not be sustained without seriously depleting Earth's resources and overloading the planet's ability to deal with pollution and waste materials.

Between 1965 and 1970 environmental groups proliferated, and the protection of the environment, especially through the control of pollution, rose dramatically as a public priority in many countries. *Time* magazine labelled environmental protection a 'national obsession' in America. A 'sense of urgency – even crisis – suddenly pervaded public discussion of environmental issues. The press was filled with stories of environmental trauma ...' (Vogel 1989: 65).

Despite controversy at the time over whether economic growth was a help or a hindrance to the achievement of ecological sustainability, the essential role of the planet's ecosystems in providing life-support systems for humans as well as ensuring their health and wellbeing was widely recognised, as was the fact that human activity had the potential to irreparably damage those ecosystems.

The polluter pays principle

Governments worldwide responded to this early wave of environmental concern with new forms of comprehensive environmental legislation and the establishment of environmental regulatory agencies. The new environmental laws were part of a general trend in legislation aimed at regulating corporate activities and constraining unwanted business activities.

The polluter pays principle was introduced in the 1970s because of concerns that pollution control laws might disadvantage the industries of some nations. The first international agreement on the polluter pays principle was incorporated in a 1972 Organisation for Economic Cooperation and Development (OECD) Council recommendation. Its main goal was to prevent governments from subsidising pollution control and thereby giving companies from their own nations an unfair

advantage in competing for international trade with firms from other nations which did not subsidise pollution control. The idea was that the costs of pollution control should be reflected in the cost of goods and services that required such controls.

It was only later that the goal of providing an incentive to prevent pollution by making firms responsible for paying for its prevention and consequences became widely accepted. The notion of the polluter pays principle as an ethical principle, a principle of fairness and responsibility, also developed later.

The precautionary principle

The precautionary principle as an official principle guiding policy also dates back to the 1970s, when it was incorporated into German and Swedish environmental policy. The first recognition of the precautionary principle in an international agreement came in 1982 when it was incorporated into the World Charter for Nature and adopted by the United Nations (UN) General Assembly (EC 2000a: 11).

Until the 1970s environmental protection existed mainly in the form of remedial action. Governments were reluctant to do anything to protect the environment unless demonstrable harm had already occurred. In this context, uncertainty was frequently used as a reason to postpone government intervention, which all too often meant that death or serious harm occurred before anything was done; witness the case of asbestos, which caused the deaths of thousands of people before it was banned (Harramoës et al. 2001).

The inadequacy of the reactive approach became undeniably apparent after a series of unpredicted environmental disasters, including the discovery of the hole in the ozone layer and the chemical contamination of various marine environments such as the North Sea. It became evident that the ability of the oceans and the atmosphere to soak up and dilute and assimilate a variety of pollutants without detriment was limited. The precautionary principle seemed particularly relevant to marine pollution, 'where an abundance of ecological data on pollution yielded little understanding but much concern', and during the 1980s it was integrated into a number of international treaties beginning with the North Sea Treaties (de Sadeleer 2002: 94; MacGarvin 1994: 69).

Modern environmental regulations are more anticipatory than earlier such regulations. Although their introduction was in most cases forced by evidence of environmental harm, they seek to prevent further harm by considering the environmental impacts of human activities in advance, evaluating risks and preventing activities known to be harmful. They are based on the idea that it is safer, and often less expensive, to prevent damage rather than attempting to fix it up later. The precautionary

principle, which goes even further than this, says that even where it is not certain that serious or irreversible harm will be caused, if it is likely, action should be taken to prevent it.

The participation principle

Many governments introduced requirements for the environmental impact of certain proposed activities to be assessed in the 1970s and 1980s. Environmental impact assessment (EIA) is required to ensure that environmental impacts are considered before certain developments and projects that are likely to have a detrimental affect on the environment are given approval.

Environmental impact assessment often included a limited form of public consultation, an early recognition of the right of the public to participate in environmental decisions that might affect them. An environmental impact statement (EIS), usually prepared by the project proponent, is publicly displayed for a few weeks, and interested persons and organisations have the opportunity to make submissions about the proposal. The EIS and the public submissions are then assessed by a government authority – sometimes a local council, sometimes a government department – and a decision is made about whether the project should go ahead.

Freedom of information legislation was also introduced into many countries as the right to know became established. This legislation covered the right to know about environmental matters with respect to government agencies and in the 1980s began to be applied in a limited way to information about polluting companies. Inventories of pollutants have been established in a number of countries, including the USA, Canada, the United Kingdom, the Netherlands, Norway and Australia, as a contribution to fulfilling the public's right to know.

The right to participation, often interpreted as the right to be consulted, did not spread far beyond EIA until the 1990s, when various international agreements acknowledged its importance to achieving environmental goals.

The equity principle

During the 1980s the concept of ecological sustainability was married with the idea of equity (or fairness), and particularly intergenerational equity, that is, the idea of justice and fairness to future generations. The 1980 World Conservation Strategy, produced by the International Union for Conservation of Nature and Natural Resources (IUCN) in collaboration with the UN Environment Programme (UNEP) and the World Wildlife Fund (WWF, now the World Wide Fund for Nature), called for:

the management of human use of the biosphere [the thin covering of the planet that sustains life] so that it may yield the greatest sustainable benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations. (IUCN et al. 1980)

The World Commission on Environment and Development (WCED), otherwise known as the Brundtland Commission, which played such a prominent part in popularising the notion of sustainable development, defined it in equity terms as ‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs’ (WCED 1990: 85).

The Earth Summit in Rio in 1992 reaffirmed the centrality of equity in its Rio Declaration. Since then the rhetoric of equity has been incorporated into numerous sustainable development strategies and policies.

Human rights principles

It was not until the 1980s that the most important and basic principle for guiding human affairs, that of human rights, was seriously applied to environmental issues. The Universal Declaration of Human Rights was adopted in 1948, well before environmental concerns were as pressing as they later became, and does not specifically mention the environment. It has since become clear that environmental protection is necessary to support some of the most fundamental of human rights, such as the rights to life, health and wellbeing (UNHCHR 2002).

Environmentally damaging activities that result in death, injury and disease obviously breach human rights. For example, ‘almost a fifth of all ill health in poor countries’, according to the World Bank, ‘can be attributed to environmental factors, including climate change and pollution’. Twelve million people die each year from contaminated water and inadequate sanitation. More than 2 million die from air contamination within their homes and 800 000 from outdoor urban air pollution. Some 4000 die from outdoor air contamination in the Brazilian cities of San Pablo and Rio de Janeiro alone (CEDHA 2002; Vidal 2005).

It is clear from these statistics both that environmental protection is essential to safeguard human rights, and that human rights principles need to guide environmental policy. Other relevant human rights include a person’s ‘right to a standard of living adequate for the health and well-being of himself and of his family’, the right to participate in governance decisions and, in later human rights documents, the right to self-determination and the right to peaceful enjoyment of property.

In 1984 the OECD agreed that the right to a ‘decent’ environment was a fundamental human right (Bosselmann 2005). In 1994 the UN’s Special Rapporteur on Human Rights and the Environment proposed a Draft

Principles on Human Rights and the Environment. These have yet to be adopted. The right to a healthy environment has nevertheless been incorporated into the constitutions of more than 90 nations since 1992.

POLICIES

Environmental legislation

The first wave of environmental legislation effectively reduced many of the most obvious sources of pollution in developed nations, and many of the most environmentally insensitive developments. However, by the late 1980s its shortcomings were becoming apparent, while local pollution events, such as medical waste washing up on New York beaches and sewage pollution on Sydney beaches, also contributed to the public perception of an environment in decline. Not only was the environment continuing to be degraded, but new global concerns such as ozone depletion and global warming were also emerging. The World Commission on Environment and Development noted in 1987:

Each year another 6 million hectares of productive dryland turns into worthless desert ... More than 11 million hectares of forests are destroyed yearly ... In Europe, acid precipitation kills forests and lakes ... The burning of fossil fuels puts into the atmosphere carbon dioxide, which is causing gradual global warming. This 'greenhouse effect' may by early next century have increased average global temperatures enough to shift agricultural production areas, raise sea levels to flood coastal cities, and disrupt national economies. Other industrial gases threaten to deplete the planet's protective ozone shield to such an extent that the number of human and animal cancers would rise sharply and the oceans' food chain would be disrupted. Industry and agriculture put toxic substances into the human food chain and into underground water tables beyond reach of cleansing. (WCED 1990)

The shortcomings of the first wave of legislation were partly due to the unwillingness of governments to risk economic growth and confront business. Enforcement of environmental legislation and standards in most nations had been particularly weak and regulatory agencies poorly resourced and staffed (Gunningham & Sinclair 2002: 31). To be effective, regulations need full political support so that regulatory agencies have the financial and human resources to monitor and enforce standards properly.

Industry in many countries opposed environmental legislation, claiming the costs involved hindered economic development and detracted from the ability of private enterprise to operate efficiently and effectively. However, Douglas Costle (1981), an administrator of the US Environment Protection Agency (EPA) in the 1970s, found that both industry and the EPA tended to overestimate rather than underestimate the costs of complying with environmental regulations. He tells of how the chemical industry overestimated the costs of a proposed vinyl chloride standard by two hundred times, and how the automobile industry overestimated the cost of a shoulder harness in a car by five times.

There was also little evidence that environmental regulation had an adverse effect on the economy in general. The Pearce Report (Pearce et al. 1989: 26) found it difficult to locate examples of cases in which environmental regulations had hurt the competitive position of a country. Some business people admitted that environmental protection could bring benefits to industry by reducing costs for raw materials, energy, water and waste disposal.

Nevertheless, most governments went out of their way to accommodate business interests. For example, when water pollution legislation and standards were established in New South Wales the government was careful to ensure that the legislation would 'cause minimum hardship to industries and services which need to use areas of water for waste disposal' (*Sydney Morning Herald* 12/3/69). There was, therefore, no goal of ridding the waterways of pollution – rather, the strategy was to keep pollution 'to a level where it will cause the least possible harm'. In introducing the legislation the Minister said: 'Where a degree of pollution is unavoidable because of the need to dispose of sewerage and industrial wastes, it is permitted in a controlled fashion designed to meet the needs of the community as a whole' (Jago 1969).

Environmental concern peaks

Worldwide, when public concern about the environment rose in the late 1980s, reinforced by scientific discoveries regarding phenomena such as ozone depletion and weather patterns that seemed to indicate that global warming had already begun, the obvious solution was to tighten environmental regulations.

A 1989 *New York Times*/CBS poll found that 80 per cent of people surveyed agreed that 'protecting the environment is so important that standards cannot be too high and continuing environmental improvements must be made regardless of cost'. Greens parties in Europe attracted 15 per cent of the vote. Sixteen per cent of Canadians surveyed said the environment was the most important problem in Canada – more important even than unemployment – and most people felt that solving