NATURAL RESOURCES JOURNAL

Volume 34
Issue 4 *Fall 1991*

Fall 1994

Introduction

Ludwik A. Teclaff

LUDWIK A. TECLAFF*

Introduction

Much of the current emphasis in environmental law, both municipal and international, is on preventing future harm, ceasing or mitigating current harmful activities, and preserving undamaged ecosystems in a pristine state. We can see this emphasis in operation at every level of concern, from global endeavors to stave off ozone depletion and climate change down to purely local measures to measures to maintain a wildlife refuge or preserve a cherished piece of woodland. Restoration of an already damaged environment is the other side of the coin. It plays a major part in the domestic and international law of pollution control, arising from the realization that only specific cleanup measures can reverse the harm done. In few other circumstances is this more clearly seen than in the aftermath of a disastrous oil spill at sea. Apart from pollution cleanup, however, actually other kinds of environmental damage has not until recently been given much attention in law. Now the picture is changing and ever more frequently the idea of restoring or rehabilitating ecosystems appears in the wording of recommendations, guidelines, codes of conduct, legislation, and international conventions. The idea is also being put into practice on scales ranging from tiny patches of wetland to entire large regions.

Restoration is prompted by two considerations. One is that very little of the environment worldwide is left undamaged, even on polar icesheets or the slopes of Mount Everest or in the depths of the Amazon rain forest, and that something must be done if there are to be any healthy ecosystems for future generations to enjoy. Secondly, there is a concern that merely stopping the damage is not enough, that natural processes will not by themselves bring an ecosystem back to its original state, at least not for any foreseeable future and perhaps never. This raises the question of how much and what kind of human input is appropriate in a restoration effort. Moreover, since restoration at best is only a partial solution and never a substitute for prevention of damage, there remains the problem in law of how to cope with ecosystem destruction of such an irreversible nature that it can fairly be termed ecocide.

The scope for restoration technology and restoration law is vast, both in the domestic and in the international sphere. It embraces the reversal of such kinds of damage as desertification, soil salinization, waterlogging from irrigation, removal of watershed forests and catastrophic flooding, loss of wildlife migration corridors, destruction of

---

* Professor of Law (Emeritus), Fordham University School of Law.

habitat for flora and fauna, temperate forest damage and tropical forest destruction, loss of freshwater wetlands and saltwater marshes, harm to aquatic ecosystems from dams, diversion, power plants and flood control works, and the insidious, pervasive deterioration of the marine environment. Some ecosystems are especially vulnerable to disruption of their life cycles; they are less able to recover from disturbance and the consequences may be very far-reaching. These fragile ecosystems occur in the tropics, in polar regions and at high altitudes, and are more at risk from modern development than ecosystems in temperate parts of the world. Obviously, a symposium such as this can cover only a small part of the totality of environmental harm and examine programs of ecosystem restoration. Many of the examples of rehabilitation efforts underway are small-scale and taken from domestic law and practice. But environmental damage knows no frontiers and much thought is being given to restoration in a transboundary context. As in so many other areas of environmental concern worldwide, the 1972 United Nations conference on the Human Environment provides as reference point in its declaration (Principle 3) that the capacity of the earth to produce vital renewable resources must be, wherever practicable, restore or improved. Throughout that decade, attention still focused on renewable resources of economic value to human populations, but in the 1980s there was as subtle shift toward restoration of the environment for its own sake, as in the 1982 Word Charter for Nature. By the beginning of the present decade, restoration was firmly centered on ecosystems. Protocols to older agreements, such as the 1990 Protocol to the Cartagena Convention of 1983 on the Marine Environment of the Wider Caribbean Region, and new agreements, such as the 1992 Helsinki Convention on the Protection and Use of Transboundary Watercourses and International Lakes, Reflects this emphasis. The European Community and the United Nations Economic Commission for Europe are assiduously developing the ecosystem approach, the former in its Natura 2000 network of special conservation areas, the latter in its water management guidelines; both incorporate the aim of rehabilitating damaged ecosystem components. Agenda 21 for the United Nations Conference on Environment and Development at Rio de Janeiro in 1992 targeted as priorities in land-sue management the rehabilitation of degraded natural forests, the protective revegetation of mountain areas, and the restoration of severely desertified rangeland and cropland. UNCED laid particular stress, in Agenda 21 and in the Convention on Biological Diversity, on the role of indigenous people and local communities in restoration of water and land resources. Proposals for restoration have become more specific. Some recent guidelines and recommendations provide for funds and reimbursement for environmental repair measures undertaken by authorities and private persons, including compensation for development projects foregone. It

has been recommended that the "polluter pays" principle be extended to development, so that the develop should pay for any restoration subsequently require, and that environmentally damaging technical development schemes be replaced by environment-friendly engineering projects so as to reintroduce natural dynamics. These are far-reaching and controversial concepts, especially if applied across frontiers and to land or water-use developments completed long ago with substantial economic benefit. Even environmentalists disagree over the capacity or humans to cooperate with nature in restoration efforts. Some have ethical concerns about manipulating the environment in an attempt to put the clock back to a stage which might not now exist in nature; others are skeptical because of the costs involved, the lack of data on predisturbed ecosystems, and the uncertainty of the outcome. Restoration is still in its infancy, but it is fast being refined and developed. It cannot fail to advance our understanding of ecosystems and improve resource managerial skills. It should enable humans to live symbiotically with other communities in nature and, ultimately, to achieve sustainable development without impairing the ecosystems upon which all depend.