

# ENVIRONMENTAL PROBLEMS, MORALS, AND INCENTIVES IN MODERN SOCIETIES

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## Summary

In solving environmental problems we face a double problem: so far unknown dimensions of uncertainty, and at the same time lost possibilities of solution. The first aspect focuses on specific patterns of risk perception and the problem of an increasing lack of knowledge in terms of what we should know in order to make decisions. The second aspect focuses on what follows from basic features of modern society.

The crucial point is that these features constitute systematic limits to individual problem-solving by means of strengthening individual morals and responsibilities. As a result there are systematic limits in the prevailing efforts to integrate ecological and sustainability criteria into decision-making by means of information and moralizing. One answer to that is a change of the institutional framework and resulting incentive structures, so that it becomes easier to respond to changing ecological scarcities. But the crucial question remains: how to narrow the gap between prevailing short-run rationalities of the economic and the political decisions, on the one hand, and the requirements of long-run sustainability, on the other? Institutionalizing new platforms of communication and participation may be a suitable option to tackle this problem.

## 1. Introduction

Whenever we face problems in modern societies we observe a tendency in mass communication to explain them as a result of inadequate behavior due to inadequate values or lacking awareness. Consequently, strategies of problem-solving under discussion are, in public opinion, usually based on information, enlightenment, and appeals to morals in order to generate the desired behavior voluntarily. And if this strategy fails, political regulations are usually expected to be an appropriate substitute.

We can also observe these patterns as far as environmental and sustainability problems are concerned. Strengthening environmental awareness and environmental regulations are the preferred strategies. These strategies are basically familiar to our political culture. But we have to go beyond them if we really want to approximate sustainability in modern societies. In modern societies, behavior and overall results are more and more determined by the (moral) quality of institutions and resulting incentive structures, and less by the (moral) quality of motives and individual morals.

This view is outlined by first referring to the global dimensions of environmental problems, which are of special concern to the modern societies of the north. But in contrast to the size of the task, and compared to the knowledge needed in order to solve these problems, our available knowledge is rather poor. Moreover, problem-solving mechanisms, which were effective in the past, like influencing behavior by norms commonly shared, fail more and more. The crucial point is that, nowadays, appealing to morals in order to strengthen those norms will be successful only under certain conditions, and rather by exception than as a rule. Because of certain characteristics of modern societies, we tend to focus on the moral quality of institutions and their resulting incentive structures. But implementing an ecologically-favorable institutional change into the market and political system demands new platforms of communication and participation to bring about and also to make use of an intensified environmental awareness, which is more sensitive to questions of suitable institutions.

## **2. New Dimensions of Environmental Problems**

Human beings have always affected their natural environment. Many environmental problems as a consequence of human behavior can be taken as examples out of history. An example often mentioned is the cutting down of forests for economic purposes like agriculture and cattle breeding, building vessels, or producing coal. But it was not before the last decades that interventions in the natural environment were noticed as a serious and perceptible problem for mankind. This was not only because of their local, national, and global impacts on life in terms of “costs” and “benefits,” but also because environmental questions seem to become more and more important elements of individual morals and personal identity.

In former times “nature” was regarded, above all, as a threat to mankind. Human life was immediately and obviously linked to natural phenomena. Individuals knew quite well that—generally speaking—there was no possibility to escape from the constraints put upon them by their natural environment. Human life was dependent on the surrounding nature, and adjusted to it to a far greater extent than today. Consequently, the development of science and technology in the evolving civilizations aimed at diminishing the dependence of mankind on natural forces. The outcome was the process of industrialization, which brought about an immense increase in wealth and material freedom, a far-reaching liberation from the burden of constraints so far put on human life by nature. But the price, as we now know and start to feel, was a severe decrease in environmental quality. Today, the stability of ecological circles is endangered, above all, by prevailing technologies, consumption-patterns, and a dramatic increase in world population. Nowadays, mankind causes a threat to “nature,” although nature has the habit to fight back, as we can learn from new kinds of diseases as well as from the

unintended results of implementing large technological projects (for example, dam and irrigation projects).

On a worldwide level, we have to distinguish between at least two different (but not independent) kinds of environmental problems: poverty-caused environmental destruction in the south, and wealth-caused exploitation of resources and pollution in the highly industrialized countries in the north. Here we concentrate on the latter, bearing in mind that the production and consumption patterns in modern northern societies have a severe impact on those in developing countries. So the consumption patterns of the north are, in fact, models for the south. But at the same time they can only be practiced as long as the overwhelming part of the world population remains excluded. Adding the challenge to no longer endanger the options of future generations leads to the new normative model of “sustainable development.” This model begins to influence the discussion about how to institute a conserving society in the north, while the south still seems to remain restricted to more traditional growth in order to meet basic needs of the population. We have to realize and to take into account that environmental awareness as an indispensable prerequisite to tackling environmental problems presupposes satisfaction of basic needs, and, as a matter of fact, is positively correlated to wealth indicators. But, despite an evolving environmental awareness in rich societies, we observe in the aggregate a continuation of traditional growth patterns and continuing ecological damages and destructions. We are still at the very beginning of our way to a “sustainable” society.

For several reasons it is not possible to give a positive description of what sustainability means in detail to everyday life as an aim to be achieved within a certain time. Violations of sustainability in prevailing production and consumption patterns and the direction into which we have to change everyday life are well-known. Starting from modern societies, the method has to be based at first on growing efficiency, that is, growing resource productivity effecting a decreasing use of resources, energy, and environment per product or activity respectively. But economic growth will probably overcompensate for these effects in many sectors. That is the main reason why the strategy of sufficiency is regarded as an additional necessity, aiming at a decreasing level of resource- and energy-consumption, and an overall dematerialization of lifestyles.

Efficiency has to be put into practice above all by technical innovations. Competitive markets using their specific abilities as search and problem-solving mechanisms usually generate technical innovations. Can they be also used in favor of environmental protection? Up to now these abilities have been used successfully to increase labor productivity, substituting labor by capital as a response to increasing wage/interest ratios. Can the abilities of competitive markets as search and problem-solving mechanisms be used in favor of environmental protection, generating increasing resource productivity? We will deal with this question later on.

Sufficiency is based on social innovations on different levels of society generated by using and developing democracy. Sufficiency is a special challenge to democracy because it means a departure from the “philosophy of more.” This philosophy is deeply-bred in prevailing norms and values. It cannot be changed in the short run. The same is

true as far as the institutions of modern societies are concerned. We cannot change our institutional surroundings and the resulting incentive structures by completely replacing one setting by another, but we have to alter them as soon as possible, yet gradually, in a certain direction. The crucial question, therefore, is what is to be done in modern societies to bring about both kinds of innovations? This is, above all, a question of institutional change.

What has been done up to now is far from enough. As a reaction to noticeable environmental problems (and at the beginning not accompanied by an elaborated or even evolving ecological awareness), environmental policy in western countries in the late 1960s started with pragmatic policy approaches. These approaches focused on technical solutions in different subject areas at the end of production and consumption processes (end-of-the pipe policy). Today, lasting environmental problems that have been perceived as more severe need to be discussed more basically in the broader context of the fundamental principles of our political and economic order, and in basic categories of morals and ethics.

But looking for solutions we face a double problem: so far unknown dimensions of risk and insufficient knowledge, on the one hand, correspond to lost possibilities of risk-avoidance and problem-solving—due to special characteristics of modern societies—on the other. Both are basic with special regard to the discussion of environmental and sustainability problems.

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### Biographical Sketch

**Gerd-Jan Krol** was born in 1943 in Bentheim, Germany. Between 1963–1968 he studied Economics at Münster University; between 1968–1974 he was a research associate at the Universities of Münster and

Augsburg; in 1971 he gained his doctorate on reforms of socialist economies; in 1974 he was made Professor of Economic Education at Münster—a position which he still holds. Professor Krol is a member of Verein für Socialpolitik (the German speaking Association of Economists), the German Association of Economic Education, and the Council for Nature and Environmental Protection, Academie of North-Rhine Westfalia.

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