Foreword

The research findings contained in these pages relate to a whole corpus of material on technological transition, change, and development, and form part of a project initiated by the United Nations University with the cooperation of the Institute of Developing Economies, Tokyo.

The problems of industrialization-induced environmental pollution are fundamentally life-threatening and as such can and must be avoided. The severe problems brought on by environmental destruction can never be completely rectified because the culpable industrial organizations, the victims of environmental pollution, and the negatively affected society as a whole can never be fully freed from the deleterious results of such intrusions. A single pollutant discharged by a specific industrial complex may not be harmful in and of itself, but it may very well cause unimaginable problems by combining with other materials in the natural environment. Possibly, as with the problems inherent in acid rain, the negative results may be found across international borders, within the boundaries of other countries. Also, in the early stages of industrialization, primary sectors of industry may be the victims of environmental destruction, but as industrialization advances these primary sectors almost always come to depend on heavy industries, as is the case with chemical fertilizers and insecticides, and as such become a new source of environmental problems.

In such cases the pollution problems manifest themselves as ruined health in specific populations or as the overall destruction of specific ecosystems. Just as the driver of an automobile benefits from the motion provided by the combustion of fuel, so also does he become, at the same time, a victim of the exhaust gases thereby generated. The use of chemical fertilizers and insecticides by farmers more often than not also kills fresh-water fish, which are a primary protein source for those same farmers.

It is a generally accepted fact that environmental destruction increases the negative effects of natural disasters by intensifying the resulting problems and widening the areas affected. Within this context, it is almost impossible

to apportion responsibility for the exacerbated environmental destruction. When development becomes a national goal, developers and profiteers alike are little concerned with environmental problems and responsibility is never really considered, or if it is considered the issues are twisted and responsibility shifted. Even if development is the primary goal of a nation-state, when such development becomes the main cause of a seriously damaged natural environment or is deleterious to the health of the citizenry as a whole, then the development policies themselves must be called into question and blame properly allocated. Within this context, the politics of development and human rights considerations are brought into serious confrontation.

It is in these situations that problems of environmental pollution become the basis on which compromise is generated and development rationalized. When citizens no longer have the right of protest and political involvement, there is no freedom of thought and action, and as a result environmental pollution continues unabated. The rapid national development that is taking place in the South is a serious life-and-death matter for nations of the North. This means that citizen freedom and political involvement are matters that have global ramifications and as such concern peoples of all nations.

The problems dealt with in the pages that follow are taken from Japan's experiences with environmental destruction, and as such designate specific responsibility. In these situations, the total lack of an environment-related legal structure and a basic lack of efficiency on the part of governmental administrations made problem-solving very difficult. The government bureaucracy was unable to respond to unfamiliar situations. Rapid industrialization led to the suppression of mediating functions within society. At the same time people who tried to encourage mediation and moderation were mistreated and the problems were thereby further complicated. And although pollution problems in Japan became apparent with explosive suddenness along with the development of heavy chemical industries during the high-economic-growth period, environmental pollution has existed since the beginning of Japan's industrial era. Shozo Tanaka (1841-1913) was an early-industrialization-period politician who died a bitterly disappointed man after the suppression of political freedom by the Meiji government. However, this same Tanaka was resurrected as a symbol of the anti-pollution movement, and all his writings have been compiled and published. The supporters of Tanaka were people related to Yanaka Village, who had great respect for him and lived in accordance with his philosophy of nature. Again this year a memorial service for Tanaka will be held on the site of Yanaka Village.

The reason why Professor Jun Ui came to be chosen as editor of this volume relates to my encounter with him at the UNITAR meetings in New Delhi, India. I was deeply impressed by his efforts there at re-educating the participants about the dogmatic idea that socialist countries are pollutionfree. The evaluations and conclusions reached in this compilation of studies rest with the individual authors and it has been my responsibility to ensure that each of the writers was guaranteed unequivocal freedom of scholarship and expression. These studies are the product of many long hours of writing, co-ordination, discussion, translation, and staff work relative to the issues involved and the surveys made. It is very much regretted that, because of editing problems, not all the works of the various contributors have been included in the present volume.

After reading this material one may come to the conclusion that, as a result of the difficulties related, the struggles against environmental pollution ended in defeat. It must be remembered that while anti-pollution movements usually ended without bearing much fruit, the experience of such struggles subsequently enabled potential problems to be nipped in the bud before they became too serious. It cannot be said that attempts to solve problems were completely lacking nor that industrial organizations and government administration were completely inactive in this regard. It can be said, on the other hand, that, within the context of the present socio-economic situation, a company that causes a severe pollution problem will in the end lose its competitive edge. Citizens' movements will no longer tolerate this kind of governmental and administrative negligence. However, before this present stage in the anti-pollution campaign was reached, many serious ecological and environmental problems were encountered, a few of which are described in the present volume. These pollution-related experiences have had a profound impact on the personal histories of the pollution victims. The contributors to this work are the people who initially uncovered the problems encountered by the pollution victims, made records of them, carried out research, and finally brought the problems to public attention.

It took many many hours of dedicated work to bring about the publication of this volume. I would like to express my sincere appreciation to all those who worked so hard behind the scenes to bring the project to completion.

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