

Preface

Despite growing concern over global air pollution, urban air pollution still remains in most parts of the world and actually threatens the health of people. Regardless of the vast amount of knowledge on its causes and the tremendous development of control technology, effective countermeasures are slow to be implemented. Sometimes because of economic difficulties and sometimes because of differences in opinion over the measures to be taken.

In this situation, Japan can be praised because of its success in controlling air pollution. Now in Tokyo, one can enjoy "clean air" in spite of the highly concentrated activity and congested traffic. It is difficult to imagine the smog mantle which covered Tokyo twenty years ago, causing immense irritation to the eyes and throat, and bringing a permanent "dusk" to the city.

Until relatively recently, most people in Japan thought that the worsening air quality was an inevitable consequence of industrialization and thought that they should endure it. However, several severe incidents made them recognize the dreadful consequences of air pollution and drove them to demand tighter pollution controls. The strong will of the people first moved the local governments and then influenced national policy which inevitably has changed the attitude of industry, traditionally resistant to tighter controls.

Based on the Japanese experience, this book provides a basic background to help conquer air pollution. It begins with a well documented history of the fight against air pollution, always starting with protests from the victims and ending with the willing cooperation of industry. It tells of the processes and mechanisms of reaching a social consensus on pollution control.

The book describes a successful approach to air pollution control which has integrated well founded scientific knowledge into an effective legal system. The essential steps are the establishment of ambient air quality standards, the introduction of the total allowable mass of emission and the legal control of each emission based on diffusion equations. The scientific background of this approach is fully explained from epidemiology to computer simulations of air quality.

The book presents an up-to-date account of emission control technology. It also deals with the controversial issue of health damage compensation based on actual experience.

An important feature of the book is that it is written by authors who were actually in the forefront of the battle against air pollution in Japan. Two of them (H.K. and M.H.) successively worked as the Director General of the Bureau of Air Quality of the central government and another (H.N.) helped local

governments to force the central government to implement the most stringent auto-emission controls in the world.

The book is intended not only for scientists, engineers and administrative planners dealing with air pollution control but also for ordinary citizens concerned about the problem. It may also be of interest to those curious about the Japanese way of reaching a social consensus.

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