BERNHARD GLAESER (ed.): Ökologie und Umweltschutz in der VR China. Eindrücke und Erfahrungsberichte einer Umweltdelegation. Bochum: Studienverlag Brockmeyer, 1982. 341 pages, DM 39.80

This volume grew out of a 16-day visit to China in spring 1981 by a delegation of 8 German experts in various fields of environmental studies. The wide range of topics dealt with in this book results necessarily from the heterogenous composition of this "Environmental delegation". The delegation consisted of experts on Environmental Protection in Agriculture (Dr. Glaeser), Landscape Planning and Ecology (Dr. Küchler), Environmental Medicine (Dr. Schlipköter), Industrial Air Pollution (Dr. Prinz), Emission-reducing Technologies (Dr. Krause, Economy of waste (Dr. Schenkel) and Sewage Treatment (Dr. Eberle).

These experts from different universities and research institutes had been brought together by a research project called "Environmental Policy and Technological Development in China", financed by the German Ministry of Research and Technology and organised by the International Institute for Environment and Society, Berlin. As the leader of the project and the editor of the volume under review, Dr. Glaeser states in the introduction that the purpose of the delegation's trip to China was to study problems of environmental protection and to identify projects of further co-operation between West Germany and China. In a few of Glaeser's (self-) critical remarks we learn, however, that the realization of these targets didn't work out as planned. The main obstacle, as seen by Glaeser (and the majority of his colleagues as well), was the heterogenous composition of the delegation. Given the short time of the visit, this led to a situation in which it was impossible for the different experts to satisfy their specific informational needs and to discuss problems in depth. (One expert reckoned the average daily time for each of the 8 experts to discuss his subject with the Chinese side to be not more than 15-20 minutes.) The well-known general problems of a visit to China (time-consuming translation problems, lack of data supplied by the Chinese side) only worsened the situation.

Thus, hopes of getting a clear picture of current environmental policy in the PR of China were quickly frustrated in the course of the delegation's stay in China. This basic weakness in organizing and preparing the visit is partially reflected in the book, which presents itself to the reader as a collection of papers by the participants of the delegation, recording and summarizing information and impressions obtained in their respective areas. In the course of a short review it is not possible to attempt a critical and detailed review of each paper - not to mention the reviewer's lack of technological expertise in subjects such as industrial medicine, air pollution prevention and the like. Hence, a short summary and list of topics should suffice.

At first we are given a general overview of the places and institutions visited in China along with short summaries of the discussions held and the data supplied by the Chinese side. The experts had the opportunity to visit various scientific

institutions on the central and regional level in Beijing, Shanghai, Shenyang, Hefei and Wuxi, and could also inspect chemical factories (Shenyang), galvanizing factories (Shanghai), water and power plants (Beijing, Shanghai), textile dyeing and printing factories (Hefei). Furthermore, a number of medical research institutes and factory clinics were visited as well. Seen by region and sector, the delegation's visit clearly focused on industry-related problems of environmental protection, whereas important topics such as landscape ecology, soil erosion and forestry were more or less not taken into account. The following papers of Küchler on landscape protection (p. 55-112), and Glaeser on environment-related agricultural policy (p. 113-158), however, provide the interested reader with a rather detailed overview of these important aspects of environmental policy in China.

Küchler gives a wide-ranging account of the institutional and scientific set-up regarding landscape and environmental protection in China. After a critical discussion of the centralized approach to environmental protection as it is currently practised in China (centralized organizations, one unified environment law), Küchler proceeds to describe the most recent efforts of the various departments of geo-sciences in China towards gaining a systematic evaluation of the national potential in natural resources. This evaluation and inventory which started in Europa 200 years ago can be viewed as a prereqisite to a balanced development of economy and ecology. The products of this inventory (for obvious reasons not all of them are made public) are presented by Küchler. They include topographical, botanical, meteorological and geological maps, most of them published in the late seventies. A 12-volume "Physical Geography of China", edited by the Academica Sinica, is in preparation. The major ecological problems identified by Küchler are soil erosion, the spreading of the desert and forest destruction. The example of forest destruction aids Küchler in illustrating the weak position of ecological considerations, both past and present. In spite of numerous articles in the press complaining about the destruction of forests and abusive exploitation of forest lands, and in spite of a new forestry law passed in 1979, forest devastation actually increased in the following year. This was in part the direct result of the more liberal economic policies introduced in 1979/80 which allowed factories and economic units all over the country to sell their above quota production on the free market. Since there is an enormous demand for the scarce commodity of wood in China, indiscriminate felling by forestry plants was the natural outcome. Thus the conclusion can be drawn that a higher sensitivity of central authorities and scientists towards ecological problems does not necessarily lead to swift implementation of environment protection measures at the grassroots level of society.

Küchler then refers to the general state of nature protection policy and ecological research in China. He notes a lack of ecological studies at the tertiary educational level. He states that a whole set of paradigms which identify "progress" with increased (industrial) production and an everincreasing rate of industrialization dominate the academic scene in China. Küchler concludes

his informative paper with several proposals for a further co-operation between universities in China and West Germany and for a better organization of scientific exchange between the two countries.

The next paper by Glaeser turns to "Environmentally Compatible Agricultural Measures". Drawing from observations made during two previous visits to China as well as from secondary sources, Glaeser gives us an impression of current problems in agricultural ecology. Topics dealt with by Glaeser include the state of agricultural research projects in China, energy generation through methane, the problem of biological pest control versus chemical pest control, and forest protection. His proposals for further co-operation tend towards biological pest control, methane production, solar energy and forest-policy. In the footnotes the interested reader can find a rather comprehensive list of Chinese articles dealing with plant diseases and plant-protection, biological pest control and foot poisoning caused by chemicals.

The summary of Schlipköter's paper about medical environmental problems pinpoints some of the major problems in the field:
1. Industrial medicine and safety. The impression Schlipköter received is that despite various efforts to control infectious diseases by way of vaccination, the standard of treatment and the equipment of the hospitals visited still left much to be desired.
2. Infectious diseases. Most of the infectious diseases have been successfully controlled by way of large-scale vaccination programs. Nevertheless, methods of efficient prevention of traditional rural diseases like Schistosomiasis still need further research.

Referring to cancerous diseases, Schlipköter stresses the significance of Chinese research results and the strong interest in further scientific co-operation expressed by the Chinese side.

The papers of Prinz (Air Pollution), Schenkel (Economy of Waste), Krause (Emission-reducing Technologies) and Eberle (Sewage Treatment) provide the reader with a mass of details and figures, as well as information on administrative and technical measures taken by the authorities and various factories. Their impressions are summarized at the end of each paper, together with proposals for future co-operation focusing on scientific exchange.

In sum, this volume certainly has its merits in terms of giving a first, though rudimentary, overview of environmental protection policy in the PR of China. On the other hand, it has to be pointed out that the readability of the volume leaves much to be desired. Reports from trips to China are always filled with details and facts which basically do not contribute much to the topic the reader is interested in. ("Arriving at ..., eating out with ..., where..., when...") With the notable exception of Küchler's paper, the book is rather carelessly edited. The reader is disturbed by dozens of typing errors, unnecessary repetitions and overlappings which could have been avoided. Without measuring the volume against purist sinological standards, some typing errors are hard to digest: the

Chinese province Jiangsu is given as "Yiangsu" (p. 234); another province given as "Chiliang" (p. 138) seems to be a distorted cross between Jilin and Heilongjiang.

A more rational and careful organization of the volume would have been a big favor to the reader.

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THOMAS PAULINI: Agrarian Movements and Reforms in India. (Sozialökonomische Schriften zur Agrarentwicklung, Bd.33). Saarbrücken: Breitenbach, 1979. 650 pages.

Paulini's attempt to deal with a difficult chapter of the Indian agrarian history, i.e. the agrarian reform and the agrarian movements, is a brave and in the final instance successful experiment. He does not describe only the history of the agrarian reform and the peasant movements in India but - as could hardly be otherwise in a country where the majority of people are still peasants - the history of Indian independence and liberation.

It is interesting and informative to note the smooth change from what was initially purely an agrarian movement to an anti-British one and in the end a national struggle for independence.

The early moslemic Moplah-movement was, as the author frequently points out, influenced by islamic religious ideas. But he tries to ignore this and - one gets the impression - judges it negatively. At the same time, in view of the latest events in other parts of Asia, it gives this study great topicality.

That the author choose the state of Kerala for his study may have its reasons - even well-based ones, e.g. applying the term Yenan of India (birth-place of the Indian revolution) for Kerala. The claim that the experience of Kerala can be transferred to the state of India or the rest of the world should not be accepted without reservations. The mass of material - an indication of the author's diligence - clearly shows that neither the socio-cultural nor the geo-climatic conditions in this state are exemplary for India or other countries. The fact that in Kerala compared to other federal states the Non-Hindu population, especially the number of muslims, is highest and that it was the first federal state in India to elect a communist government is enough evidence to regard the development and history of Kerala as well as the history of its peasant movement and agrarian reform as a special case.

Putting aside the organic and historical interrelations, the Kerala model is worth regarding as a model. It is doubtful if in a differently structured society with a different historical background an agrarian reform in the style of Kerala's would produce the same results.