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LAND AND LAND APPRAISAL

Dr. W. Junk b. v. Publishers, The Hague 1976, XIV + 376 pp., 38 Figs., 39 Tables, 3 Photographs, 100. — Dutch Glds.

The problems of land-use and the prospecting and development of food resources are becoming more and more acute. The author of the book under review has dealt with these problems in equatorial and monsoon Asia, i.e., where the situation is most urgent. His experience and knowledge have given a book destined to help solve the problems of land use, first of all in the developing countries. The essential need for team work in solving the land-food-man relationship is clearly demonstrated here.

The book is divided into eight chapters. Chapter I (Concepts and Definitions of Land and Landscape) explains the basic definitions and concepts, as used in the documents of top world organisations and in individual fields of science. In Chapter II (The Rural Ecosystem as a Biological Entity and an Economic Resource) the author deals with further definitions and concepts (biomass, productivity, trophic levels), with basic characters of the rural ecosystem (diversity, and stability, modelling possibilities, productivity assessment), and with the relations of the rural ecosystem to the environment (soil, weather and climate). Special attention is paid to the tropical zone and to Man as part of tropical ecosystems.

Chapter III (Evaluation of Physical and Biological Components) points to the individual landscape components, which must be analysed before the planning of optimum landscape use is begun: (geology, geomorphology; topography; soils; climate; water sources, resources and irrigation potential; vegetation; fauna). The text suggests obvious data that must be acquired within individual fields of science. The botanical papers suffer from insufficient data useful for evaluation of the vegetation as an economic resource and as an indicator of the conditions of landscape. The need to consider local floras for a precise determination of plant materials as well as for an evaluation of changes in the composition of the flora-reflecting changes in the landscape—is pointed out. Great stress is laid, in Chapter IV (Evaluation of Economic Constituents), upon cereals as a fundamental component of food. The necessity of preservation of the generic sources for breeding new cultivars with suitable properties (tolerance to diseases, higher content of better-quality proteins) is emphasized. In this part the procedures suitable for collecting data on the properties of examined cereals (ecology, biochemistry) are instructively demonstrated. The following parts of Chapter IV deal with the livestock and the human population in the landscape.

The examples in Chapter V (The Use of Land in Rural Ecosystems) instructively illustrate the ways of landscape analysis and the particularities of agriculture in individual territories. The need for exact data, e.g., on the amount of water necessary for various crops, is brought out here.

Chapter VI (Assessment of Land Capability) evaluates the landscape potential as a basis for investment and points out the importance of an all-round approach to this problem. It also treats a number of current questions regarding the landscape division, using modern methods (aerial and space photography), and the methods of presentation of results.

A survey of completed and planned projects of land-use in tropical and monsoon Asia is presented in Chapter VII (Some Surveys, Completed or Planned). One of the main ideas of this book, that, first of all the developing countries must learn to make use of the landscape, is accentuated in the concluding Chapter VIII (Education in Appraisal of Land Resources). A list of the most important institutions which cover education in land-use is given here.

The book brings a very wide view of all the problems involved which cannot be mastered by a single student. The author solves this difficulty by frequent quotations from the literature, which sometimes causes a certain lack of homogeneity in the text. On the other hand, it is, indisputably positive, as regards the practical use of the book. The value of this publication is increased by a number of instructive examples, tables and, above all, by the full bibliography given at the end of each chapter.

Conceived and written in this manner, this book is important not only for the geographical regions for which it was primarily destined, but also as instruction and a model for the investigation of similar problems on other parts of the world.

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