

# Preface

This book highlights the studies of differentiation problems of natural geosystems in East Kazakhstan which have an anthropogenic impact. The systematic methodology of comprehensive ecological assessment of anthropogenic impact on natural geosystems and their differentiations on the level of technogenic conditionality for ensuring rational environmental management and environmental protection is stated. The basis for the developments of geosystem approach allows to define stability of geosystems in space and time, which major factor of the organization is nature of lithogenesis and superficial drain interrelations and combination of gravel properties, and technique of geoecological division on the basis of target function creation concerning complex ecological assessments. Despite the abundance of the publications devoted to environmental problems, influence of a technogenesis on the environment is still poorly studied. Therefore, our research results of research can be used by research institutes at a further detailed geoecological research of the geosystems functioning dynamic under the technogenesis influence. Cartographic materials and offered nature protection activities allow developing optimal variants of problem solution on complex use of natural resources, and also can be used by the production, scientific, and other organizations setting the problems solution purpose concerning environmental protection and rational environmental management.

The anthropogenic impact and influence of a technogenesis on the environment and landscape components of East Kazakhstan are considered in the book. The idea of an acceptable environmental risk in the functioning of natural and man-made systems in modern society is given. As well as methodical bases of quantitative assessment of danger in environmental and technogenic risks are given. The traditional methods in geoecology and physical geography were used in this study.

The main purpose of the study is the complex ecological assessment of anthropogenic impact on natural geosystems and their differentiations on the technogenic conditionality level for ensuring rational environmental management and environmental protection.

The practical importance of the book consists of possibility of development of evidence-based recommendations and actions for conservation, quality management of the environment in order to decrease a degree of anthropogenic impact, and prevention of degradation processes.

The book can be useful to the research institutions, industrial, scientific, and other organizations establishing the purpose of the problem solution in environmental protection and rational environmental management. The offered cartographic materials on protection of the nature allow to develop optimal variants of the solution of tasks in comprehensive use of natural resources.

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