

# ATLAS OF THE KURIL ISLANDS

Nikolay Komedchikov  
Institute of Geography  
Russian Academy of Sciences  
Staromonetny Pereulok  
29, Moscow, 119017, RUSSIA

This detailed geographical Atlas of the Kuril Islands is produced by scientists of the Russian Academy of Sciences in cooperation with other scientific and research institutes. It summarizes the results of scientific field research on the Kuril Islands and the adjacent water areas carried out by Russian scientists over the last 60 years. The Atlas is the accumulation of various sources of information and modern data on nature, resources, and the environmental potential of the region. The atlas illustrates the conditions of the regions development and use, population, economy, the development prospects of the islands, the history of their discovery, exploration, and research, as well as the position of the Kuril Islands within the geopolitical and geoeconomical context of the Asia-Pacific Region. The Atlas is aimed at providing scientific, informational, technical, and data support for various actions and developments in the principal spheres of social activity, such as economic practice, economic and regional policy, legislative and regulative practice, defense projects, science, training and education, the development of ties with foreign countries, foreign policy, and international relations. The Atlas of the Kuril Islands confirms the clear priority of Russian scientists and experts in the research and mapping of this important region for Russia.

The Atlas consists of eleven sections: 'Introduction', 'History', 'Geological and geophysical structure and mineral resources', 'Relief', 'Climatic conditions', 'Sea and dry-land waters', 'Soil cover', 'Vegetation and wildlife', 'Landscapes', 'Population and economy', and 'The Kuril Islands and the Asia-Pacific Region'.

The '**Introduction**' contains maps characterizing the position of the Kuril Islands in the world, within Russia, and the Sakhalin *oblast'* (province). The section includes also a general topographic map of the islands on the scale of 1:500,000 as well as a map of time zones.

The section '**History**' outlines the eventful historical past of the Kuril Islands. It gives up-to-date information on archeological and historical monuments, of the indigenous people (Ainu) before the colonization of the islands. It describes the principal events in the history of the islands development and scientific research. It also provides a history of the changes in the political and administrative divisions of the Kuril Islands and adjacent regions over the last three centuries. The section includes many historical documents (Russian and foreign maps and descriptions) illustrating the first steps in the geographical exploration of the Kuril

Islands. Military operations in the region at the end of World War II are also displayed in detail.

The section '**Geological and geophysical structure and mineral resources**' includes maps displaying gravitational and geomagnetic fields in the Kuril region, heat flow, seismicity, current volcanic activity and tsunami events, the distribution and age of various geological structures, the deposits of mineral resources, including an estimation of their reserves, and the location of mineral and thermal waters.

The section '**Relief**' consists of maps characterizing the morphotectonics of the north-western part of the West-Pacific seismic belt, the morphostructures and morphogenetic types of the relief of the insular dry-land and ocean bottom on the basis of geomorphological, geological, and geophysical research. This section also includes maps of hazardous geomorphological processes made with the use of remote sensing techniques.

The section '**Climatic conditions**' includes maps characterizing the principal parameters of climate and representing various climatic indices, such as climate-influencing features of the area, wind and temperature conditions, moisture, as well as unfavorable and hazardous atmospheric phenomena. The characteristics of climatic parameters in the atlas are so numerous due to the role of the local climate as one of the most important factors in determining the economical development and living conditions on the Islands.

The section '**Sea and dry-land waters**' contains maps characterizing the principal physical and chemical properties of sea water and hydrological conditions in the area of the Kuril Islands within the layer ranging from the surface to 200 meters below sea level. The maps illustrate sea currents, wave patterns, and tides. Maps of the mean annual surface runoff and scour on the islands provide information on hydrological processes.

The section '**Soil cover**' gives information on soils and soil regionalization of the Kuril Islands.

The section '**Vegetation and wildlife**' systematizes accumulated data on the flora and fauna of the islands and adjacent water areas. The maps demonstrate the diversity, dynamics, uniqueness, reproductive and resource potentials of the vegetation and wildlife. The geobotanical and zoogeographical typology are described. The floristic and faunistic orders, families, genera, and species represented on the islands are also listed. Fish resources within the adjacent water areas are especially emphasized.

The maps of the section '**Landscapes**' give information on the specificity of the Kuril Islands landscapes and the history of their formation through three temporal

stages: 20,000, 6,000 and 4,000 years ago. There is also an assessment of the stability of modern landscapes and particular attention is paid to subaquatic sea landscapes and protected natural areas.

The section '**Population and economy**' characterizes the social and economical life on the Kuril Islands. The maps represent the economy of the region, its population and living conditions, labor resources, industry, and agriculture. The characteristics of fishery facilities, and the tourist and recreational potential of the islands are especially emphasized.

The section '**The Kuril Islands and the Asia-Pacific Region**' demonstrates the importance of the geographical, transportation, economical, and geopolitical position of the region as a basis for the setting and achievement of Russia's aims in the Far East and the Asia-Pacific Region (APR). The section includes maps devoted to the branches and spheres of the economy that are most characteristic of the Kuril Islands and have the greatest potential for development. These spheres of the economy are the complex of fishery facilities, tourism, and transport. Taking into account the significant resource potential of the islands and the adjacent water areas, together with their favorable economic geographical position in relation to some of the most advanced economies in the world (such as Japan, the USA, and the Republic of Korea) the maps of this section illustrate the important strategic position of the Kuril Islands for Russia and the spheres and perspectives of cooperation with other APR countries. The section also seeks to acquaint readers with the Asia-Pacific Region itself.

Besides maps, the sections of the Atlas contain textual explanations, satellite images, photographs, graphs, and diagrams. The Atlas is concluded with an extensive list of **references** and an **index of geographical names** represented on the general topographic map on the scale of 1:500,000.

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