

Basic  
Industrial  
Resources  
of the

U · S · S · R

*by Theodore Shabad*

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# PREFACE

Despite an increasing emphasis on the production of consumer goods, basic heavy industry continues to be the mainstay of the Soviet Union's economic growth. An expansion of heavy industry, in turn, must be supported by development of the nation's resource base, particularly fuel and energy resources, metals, and other minerals for the chemical industry. Soviet progress in opening up these resources, especially since the end of World War II and through the 1950s and the 1960s, is the subject of this book. It is thus designed to bring up to date some of the aspects covered in the author's *Geography of the USSR, a Regional Survey*, published in 1951.

Fuels, electric power, metals, and chemical raw materials have been singled out for discussion on two grounds. First, these primary industries, involving extraction and basic processing of raw materials for later fabricating and manufacturing, form a cohesive chain in which fuels provide the source of electric power, and the metal and basic chemical industries, in turn, are major consumers of electric power. Second, extractive and raw-material-oriented industries are among the elements of the Soviet economy that have played a leading role in remaking the map of the country through the growth of mining towns and industrial complexes, the construction of access railroads and other means of transport, the laying of oil and gas pipelines, and changes in the locational pattern of industry.

## PREFACE

The economic sectors selected here are also the ones in which the most dramatic changes have taken place in the Soviet Union since the mid-1950s. In fuels, it has been a radical shift in emphasis from the previous reliance on coal production to priority development of more economical oil and natural-gas resources. In electric power, the trend has been from a multitude of small, local generating plants to the construction of large central electric stations, the interconnection of power grids, and the long-distance transmission of large blocks of electricity from sources of cheap power production to major consuming areas. In metals, the expansion of the basic iron and steel industry has been associated with increasing diversification and sophistication of the use of resources, including one-time "minor" metals like titanium, beryllium, germanium, zirconium, and, of course, uranium, that have found new uses in nuclear energy, electronics, high-speed flight, missiles, and space exploration. Finally, the chemical industry, long a lagging sector of the Soviet economy, has been the focus of a high-priority expansion program, based to a large extent on the use of petrochemicals from petroleum and natural gas.

Throughout the discussion, the actual development of resources is emphasized. The date that operation of specific mines, power plants, and primary processing industries began is given whenever possible, and information on capacity of production or actual output is given when such data are obtainable from Soviet sources. Potential resources are mentioned only if they are in the process of being developed or figure in early plans for development. Because of this emphasis on the actual economic use of resources for production, data on geological reserves and potential deposits have been sparsely used and attention has been concentrated on the exploitation of resources.

Mention must be made here of previous studies of Soviet mineral resources by Demetri B. Shimkin and Jordan A. Hodgkins. Shimkin's *Minerals: A Key to Soviet Power* (Harvard University Press, 1953) was an exhaustive survey of mineral resources, with a pronounced emphasis on geological considerations and potential availability of minerals. Hodgkins' *Soviet Power: Energy Resources, Production, and Potentials* (Prentice-Hall, 1961) brought the situation up to date for mineral fuels. A second study by Shimkin, *The Soviet*

*Mineral Fuels Industries, 1928-1958* (U.S. Bureau of the Census, 1962) was a historical statistical survey in mineral economics.

The present book in a sense complements the previous studies with specific and up-to-date material on Soviet resource development, including both minerals and electric power. The information presented has been culled over a period of fifteen years from a multitude of Soviet periodicals (mainly daily newspapers) and Soviet monographs. The principal sources are listed in the bibliography.

The book is arranged in two parts. Part I briefly discusses the general production trends and locational patterns of each resource sector, with emphasis on changes over the last two decades. Part II is a regional survey of specific mining centers and related resource complexes by major regions, with information on start of operations, output, and development problems. Because of the availability of statistics by republics, the Soviet Union has been broken down arbitrarily in the regional discussion into its fifteen constituent republics, with the Russian Soviet Federated Socialist Republic, the nation's largest, further divided into eight regions: four in European Russia—the North, the Center, the South (Northern Caucasus), and the Volga region; the Urals; and three in Siberia—West Siberia, East Siberia, and the Soviet Far East.

The focus on resource development does not properly reflect the relative importance of Soviet regions as integrated economic entities. Central European Russia, for example, a core area of the Soviet Union in terms of population settlement, agriculture, and the development of manufacturing, occupies relatively little space in the discussion because it is a region poor in resources that relies for its industrial potential on long-haul raw materials and long-distance power and fuel transmission from other resource-rich parts of the Soviet Union. The resulting imbalance in the presentation of data is further compounded by an uneven coverage of source materials. Because of the availability of detailed studies and separate daily newspapers for each constituent republic of the Soviet Union, data on resource development for, say, the Central Asian republics tend to be more complete than for a major economic region within the RSFSR, such as the Urals, for which fewer comprehensive sources are available.

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The statistical tables in Part I are intended to provide data on the regional distribution of the production of those basic resources that could be documented from Soviet sources. Most of the tables have been compiled from a wide range of Soviet publications in an attempt to present consistent time series. Some statistical data appeared directly in Soviet sources; others were computed from indirect indications, such as percentages and other mathematical relationships, given in Soviet publications. The detailed source references, procedures, and computations have been omitted for reasons of space.

Much of the material is derived from the "News Notes," regularly prepared by the author for *Soviet Geography: Review and Translation*, the monthly translation journal published by the American Geographical Society of New York.

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