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# THE COAL RESOURCES OF THE WORLD

An inquiry made upon the initiative of

THE EXECUTIVE COMMITTEE OF THE XII INTERNATIONAL  
GEOLOGICAL CONGRESS CANADA 1913

With the Assistance of

GEOLOGICAL SURVEYS AND MINING GEOLOGISTS OF DIFFERENT COUNTRIES

Edited by the

GEOLOGICAL SURVEY OF CANADA

With numerous Plates and Illustrations in the Text and accompanied  
by an Atlas of about 70 maps in colours



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## PROSPECTUS

**U**NTIL the middle of the nineteenth century the chief fuel of all nations, except possibly England and a few other of the more advanced European countries, was wood, and even in these the use of coal goes back only a comparatively short time. Since then, however, the draft upon coal has been enormous, and anxiety has been aroused regarding the future supply. The marvellous increase in coal consumption is strikingly shown in the United States. In 1850 the annual production in that country was about 7,000,000 tons. In 1907 it was 480,000,000 tons. In that time the per capita consumption had increased twenty-fold. The amount mined in the last decade of the nineteenth century exceeded the total production up to that time, and the amount mined in the first decade of the twentieth century will exceed all the coal mined up to the end of the nineteenth century.

With such amazing increase in the use of coal the question of the future supply must give concern to all thoughtful men. The supply of coal is definite. It cannot be added to. Will it hold out? The importance of coal in modern civilization cannot be overestimated. The great coal producing nations are the greatest commercial nations, the United States, Great Britain, Germany, France, Austro-Hungary, Belgium, Russia, and Japan. The hives of industry and the centres of population in these countries cluster round their coal supplies.

Coal offers to mankind solar energy in its most concentrated form. Indeed modern civilization may be said to be the daughter of coal. But the supply of coal is not inexhaustible, and every ton of it taken out of the earth leaves just that much less for the future needs of the world.

It has been said that the nations that have the coal and iron will rule the world. What is the coal supply of the world? Where have the districts that do not possess coal to look for their future supply? What nations have the supply of the future? For authoritative answers to these and similar important questions recourse must be had to the forthcoming monograph on the Coal Resources of the World. Realizing its universal and vital importance, the Executive Committee of the Twelfth International Geological Congress decided to make this subject the main topic for discussion at the Congress to be held in Canada in August, 1913.

But before these questions can be intelligently discussed, before deductions can be drawn and advice given regarding consumption, conservation, the future of industry, the commercial development of nations, it is necessary to know just what the coal supply of the world is. The Executive Committee of the Congress, therefore, undertook to prepare an authoritative and comprehensive monograph on the Coal Resources of the World that would supply this information, and that would furnish a basis for the main discussion at the Congress, in which every civilized country of the world will participate.

The preparation of the monograph has been entrusted to officers of the Geological Survey of Canada. Each country of the world was asked to contribute an article covering its coal resources, and with practically no exception each country selected its leading authorities, usually experts connected with the official Government Geological Surveys or Departments of Mines, to secure material for and write its chapter. In many cases new investigations in the field were necessary, unpublished material was drawn upon, and old work revised and brought up to date. The result is a most complete and authoritative statement of the coal resources of the globe. Not only is the quantity of coal discussed, but also the amount of each kind, its mode and conditions of occurrence including depth below ground, and this for practically each coal district in each country and each state. Even the Arctic and Antarctic regions are covered. Fifty-two countries have articles of length, fifteen are covered by short articles, nine report no resources of coal, twenty-five colonies are included in the reports of the mother lands. A chapter of about one hundred pages summarizes the individual reports and totals the resources of the world.

The work is well illustrated with figures, maps, etc., but in addition to these text illustrations there is an atlas of about seventy maps in colour showing the distribution of the coal areas and the geology of the more important fields.

This work is of interest to the economic geologist, mining engineer, colliery owner and coal companies, but its interest is not confined to this limited field. Political economists must familiarize themselves with its contents; naval and military men will find its information valuable; large industrial concerns looking for sites for branch factories or anticipating possible future competition will find it suggestive; transportation companies have a very direct interest in it, and any one who wishes to foretell the places and countries where important future developments are likely to take place will consult the work, for the countries that have large undeveloped resources are destined in the near future to be the scenes of important industrial activity. Every Reference Library and every private library should possess a copy of this work.

# Principal Countries Contributing With Names of Contributors

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Mines Department

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**SWEDEN**

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**SWITZERLAND**

Swiss Geological Commission

**TASMANIA**

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**TRINIDAD**

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**VICTORIA**

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**WESTERN AUSTRALIA**

H. P. Woodward, Government Geologist

## Partial List of Additional Reports Received and Used in Compilation

- BOLIVIA—British Consul
- BRITISH HONDURAS—British Consul
- COLOMBIA—Pan-American Union, J. B. Barrett, and British Consul
- ECUADOR—Pan American Union, and Ecuador Legation
- MONTENEGRO—British Consul, and Government of Montenegro
- URUGUAY—British Consul
- VENEZUELA—Canadian Commercial Agent
- HAYTI AND SAN DOMINGO—British Consul
- SALVADOR—Minister of Public Instruction
- SIAM—Royal Department of Mines
- ABYSSINIA—British Consul
- ARABIA—(Turkish)—British Consul
- ARABIA—(Muscat)—British Consul
- ARMENIA AND KURDISTAN—British Consul
- BRITISH NORTH BORNEO—T. and W. Morgans
- CHINA—Peking Syndicate, H. P. King, Manager  
Kaiping Coal Field, U. Nathan, Manager  
Pingsiang Coal Field, G. Leinung, Manager  
Memo. on Chinese Mines, British Consul
- SYRIA AND LEBANON—British Consul
- MESOPOTAMIA—British Consul
- NORTHERN NIGERIA—Govt. Secretary
- COSTA RICA—British Consul
- BAHAMAS—Surveyor-General
- BARBADOES—Colonial Secretary
- WINDWARD ISLANDS—Attorney-General
- HAWAII—Director Geological Survey
- JAMAICA—Department of Public Works
- LEEWARD ISLANDS—Superintendent of Agriculture
- BRITISH GUIANA—Director Science Department
- PARAGUAY—British Consul
- FINLAND—Director Geological Survey
- THIBET—Geological Survey of India
- CEYLON—Min. Survey of Ceylon
- MYSORE—Geological Department
- ALGERIA—Inspector-General of Mines
- TUNISIA—Inspector-General of Mines
- CONGO FREE STATE—British Consul
- FRENCH EQUATORIAL AFRICA—Governor-General
- GOLD COAST COLONY—Secretary for Mines
- LIBERIA—British Consul
- MOROCCO—British Consul
- SIERRA LEONE—Colonial Secretary
- ZANZIBAR—British Consul
- PEMBA—British Consul
- SEYCHELLES—Governor
- MAURITIUS—British Consul

## Partial List of Maps in the Atlas

- WORLD—Map showing coal areas of the world
- AUSTRIA—8 geologically coloured maps and sections of the various coal fields of Austria
- CHINA—2 maps, in colours, showing the distribution of the coal fields
- COREA—2 maps, in colours, showing the distribution of the coal fields
- GREAT BRITAIN—1 map showing the coal areas in red
- INDIA—1 map showing the coal areas
- MANCHURIA—2 maps, in colours, showing coal areas
- NETHERLANDS, INDIA—2 maps, in colour, showing the coal areas
- NEW SOUTH WALES—2 maps, in colours, showing the coal areas
- QUEENSLAND—1 geologically coloured map showing the coal areas
- ROUMANIA—1 map, in colours, showing the coal areas
- SERVIA—1 map, in colours, showing the coal areas
- SOUTH AFRICA—1 map, in colours, showing the coal areas
- SPITZBERGEN—1 map, in colours, showing the general geology
- SWEDEN—1 map, in colours, showing the position of the coal districts
- TURKEY—1 map showing location of coal fields
- UNITED STATES—1 map, in colours, showing the distribution of the different classes of coal
- WESTERN AUSTRALIA—1 map showing coal areas
- CANADA—1 map showing distribution of coal areas, 1 map of Maritime Provinces' coal areas, 1 map of Saskatchewan coal areas, 1 map of Alberta and British Columbia coal areas, 1 map of Crow's nest and Blairmore coal areas, 1 map of Cape Breton coal areas, 1 map of Vancouver Island coal fields
- FRANCE—27 Geologically Coloured Maps and Section of Coal Fields
- JAPAN—1 map, in colours, showing distribution of coal areas and Geologically Coloured Maps of Coal Fields.

In addition there will probably be maps illustrating the reports of Mexico, of the German Empire, of Russia, and of South America

## Partial List of Maps in the Text

- AUSTRIA—8 figures, including detailed maps and sections of individual coal fields
- BULGARIA—1 map showing area covered by coal fields and a sectional figure
- CHINA—16 figures showing individual coal fields in detail
- COREA—11 figures showing individual coal fields in detail
- GREAT BRITAIN—10 plates showing individual coal fields
- IRELAND—1 general map showing the coal areas and figures and sections of Ballycastle, Dungannon, and Tipperary coal fields
- MANCHURIA—15 text figures showing individual coal fields in detail
- MADAGASCAR—1 map showing coal fields
- NETHERLANDS—1 general map showing distribution of coal fields and 2 detailed maps

NEW ZEALAND—2 plates in colour showing distribution of coal areas

PHILIPPINE ISLANDS—4 plates showing the various coal districts

JAPAN—30 figures illustrating separate coal bearing areas

PORTUGAL—2 figures showing coal districts

RHODESIA—1 map showing coal areas

SOUTH AUSTRALIA—1 plate showing coal areas

SPITZBERGEN—2 figures showing details of coal areas

SWEDEN—1 plate showing position of coal districts, 10 figures showing the individual coal fields and sections

SWITZERLAND—5 figures and sections showing structure of coal fields

TASMANIA—1 plate showing coal areas

TRINIDAD—1 plate showing coal areas

TURKEY—1 map in detail, of Heraclea coal fields

CANADA—6 plates showing individual coal fields in detail

FRANCE—2 maps showing location of the various coal fields

In addition there will probably be a certain number of figures accompanying reports of Mexico, Germany, Russia, and possibly two or three of the South American Republics.

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