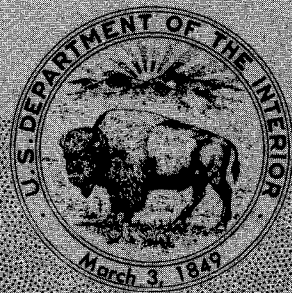
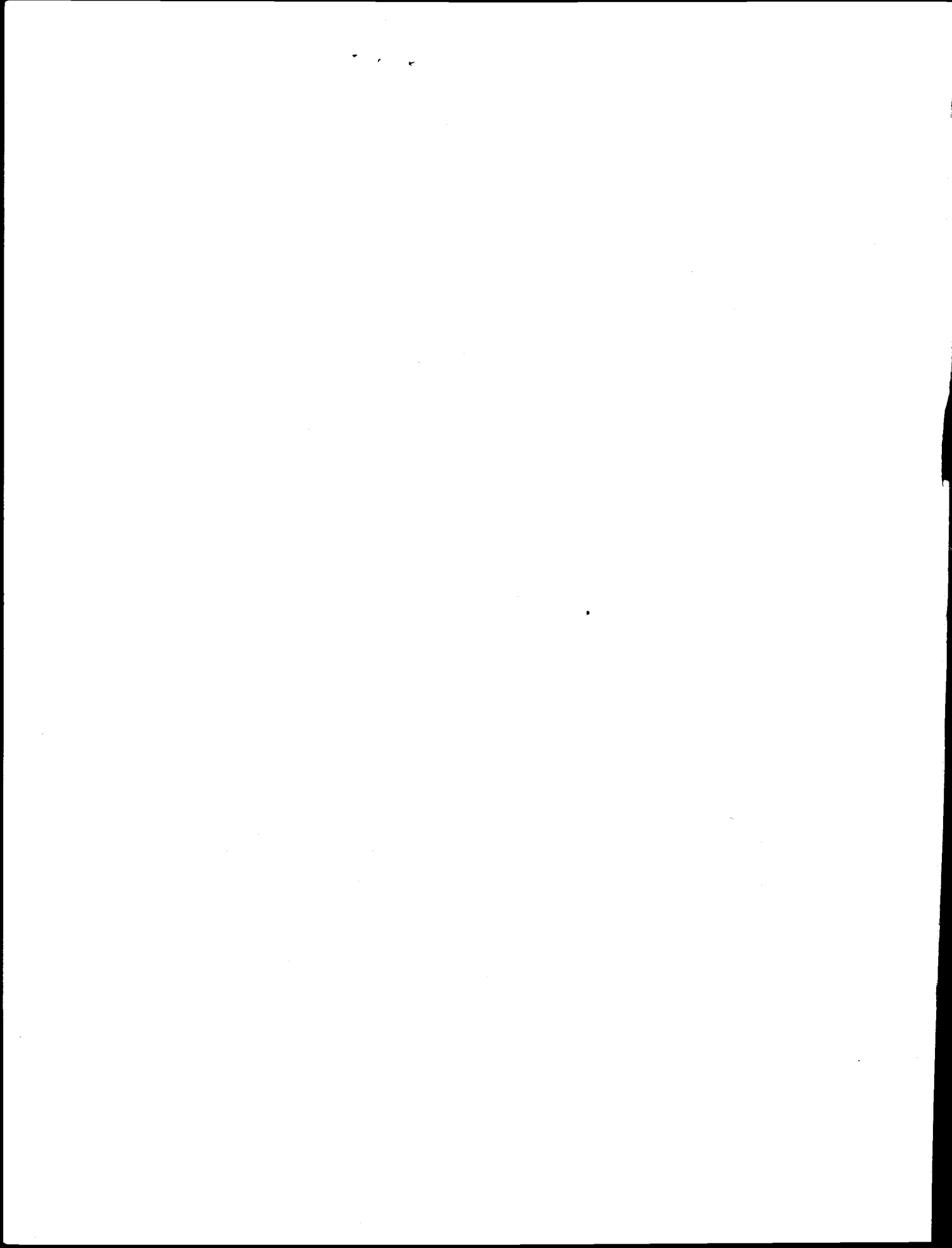


7994

U.S. GEOLOGICAL SURVEY CIRCULAR 934



**Worldwide Directory of National Earth-Science
Agencies and Related International Organizations**



Worldwide Directory of National Earth-Science Agencies and Related International Organizations

Compiled by E. J. Tinsley and Joyce P. Hollander

*A listing of governmental earth-science
agencies and selected major international
organizations whose functions are similar
to those of the U.S. Geological Survey*

U.S. GEOLOGICAL SURVEY CIRCULAR 934

Department of the Interior

WILLIAM P. CLARK, *Secretary*



U.S. Geological Survey

Dallas L. Peck, *Director*

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Worldwide Directory of National Earth-Science Agencies and Related International Organizations

Compiled by E. J. Tinsley and Joyce P. Hollander

INTRODUCTION

The "Worldwide Directory" provides addresses of governmental earth-science agencies around the world that have functions similar to those of one or more of the operating divisions of the U.S. Geological Survey (USGS); it also lists addresses of major international organizations that are concerned with some phase of the earth sciences.

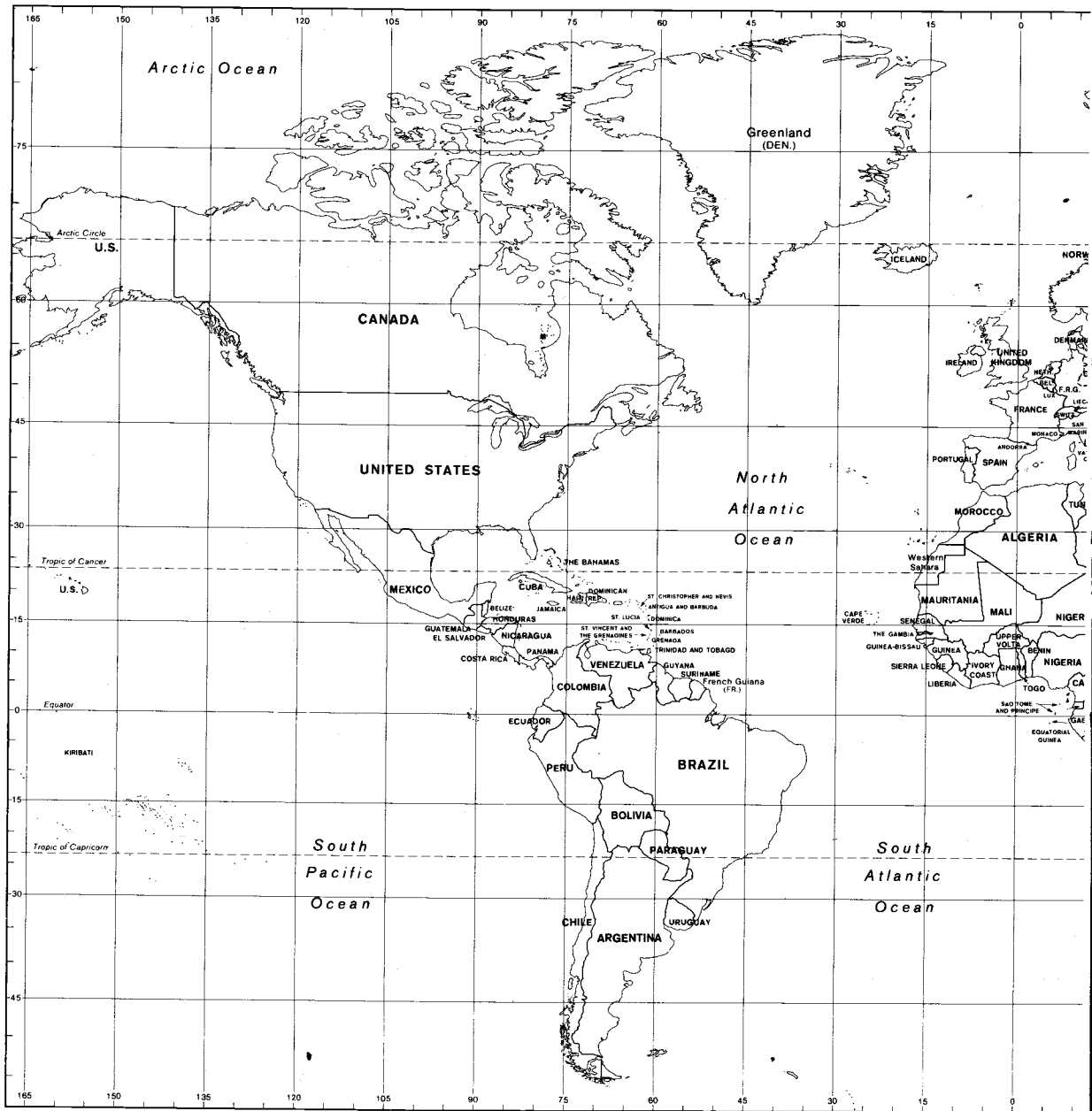
Most of the data presented herein are current as of November 1983; inevitably, some of the names and addresses given have changed since our compilation. Much of the information was supplied by staff members of American embassies around the world, and a gratifying amount of data was provided by members of counterpart national organizations. We are indebted to all those officials, to all USGS colleagues, and to others who have kindly assisted us by providing information. Those countries for which we were unable to obtain recent accurate information from sources available to us are identified.

The directory is arranged alphabetically by country name. The location of each country is shown on a small index map, which is keyed to one of 10 reference maps showing the major regions of the world. The index maps should help the user to identify countries that have new names or that have recently attained independence.

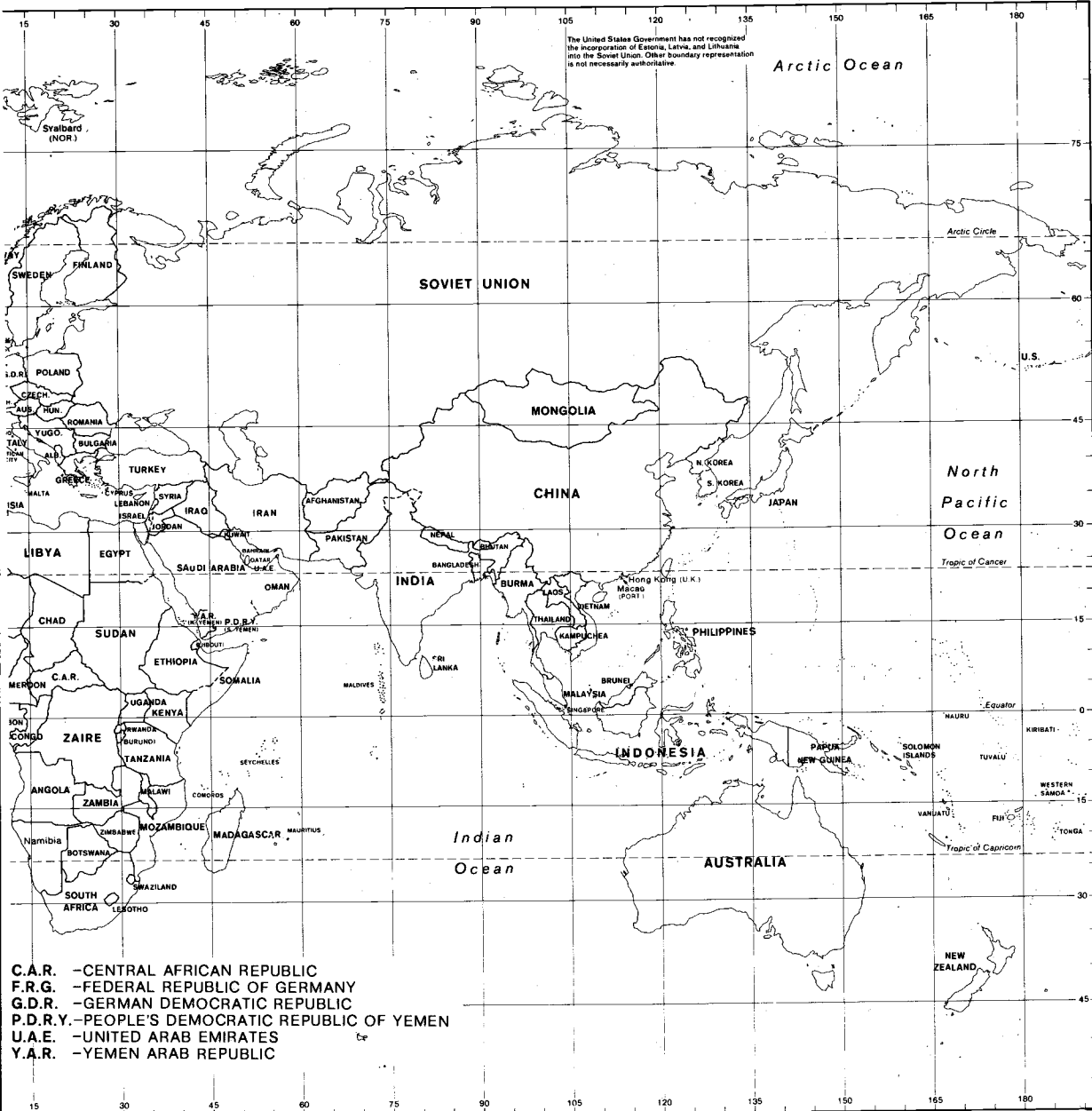
Wherever it is feasible, names of agencies in a country whose language is based on the Latin alphabet are given in the language of that country. English translations have been added in brackets where they seem necessary. Names of agencies in a country whose language is based on an alphabet other than Latin are given in English.

The principal functions of the agencies listed are keyed to those of the USGS and are indicated by code letters in the left margin of the column, as follows:

- C = Cartography
- G = Geology
- H = Hydrology
- R = Minerals and petroleum regulation

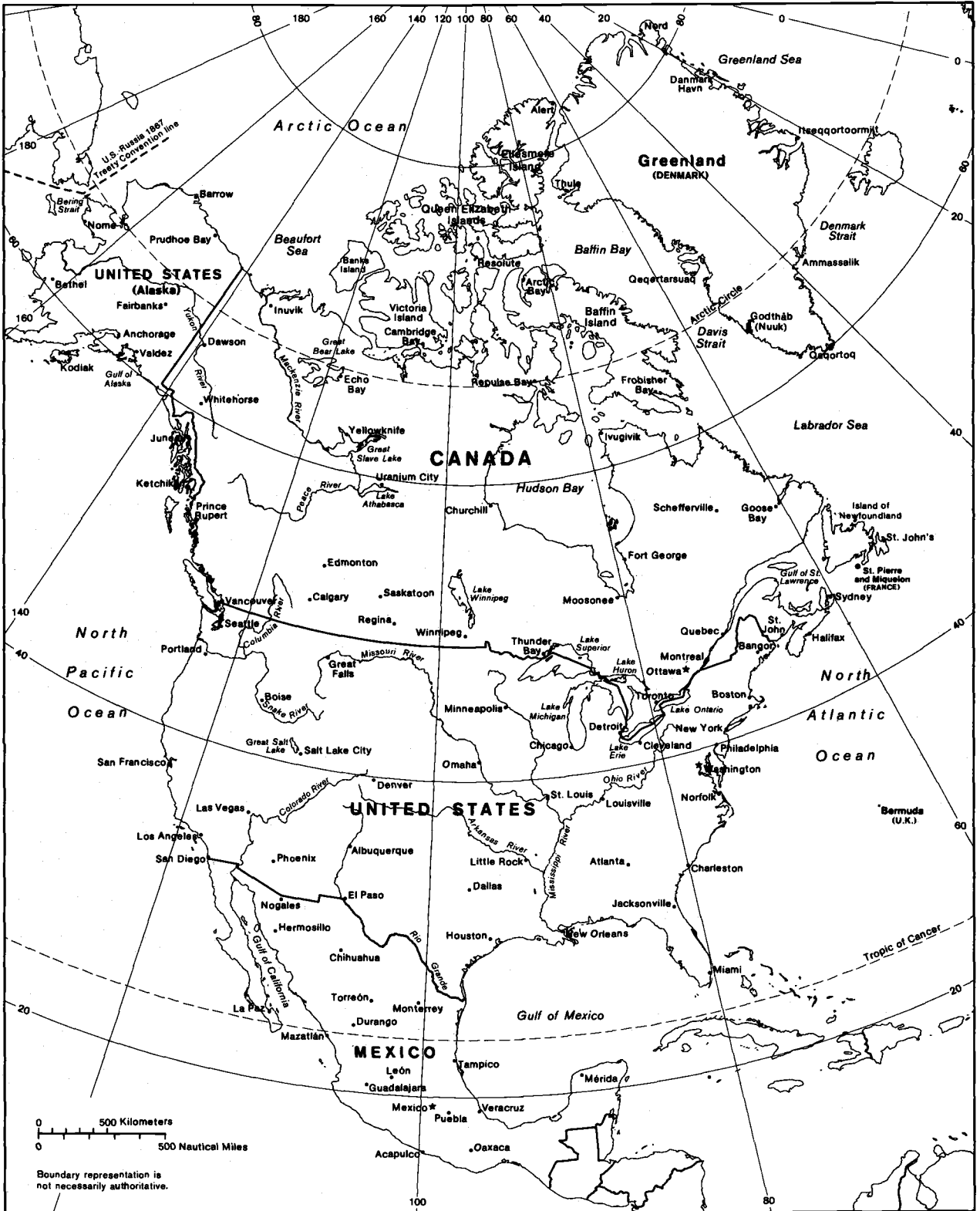


The World

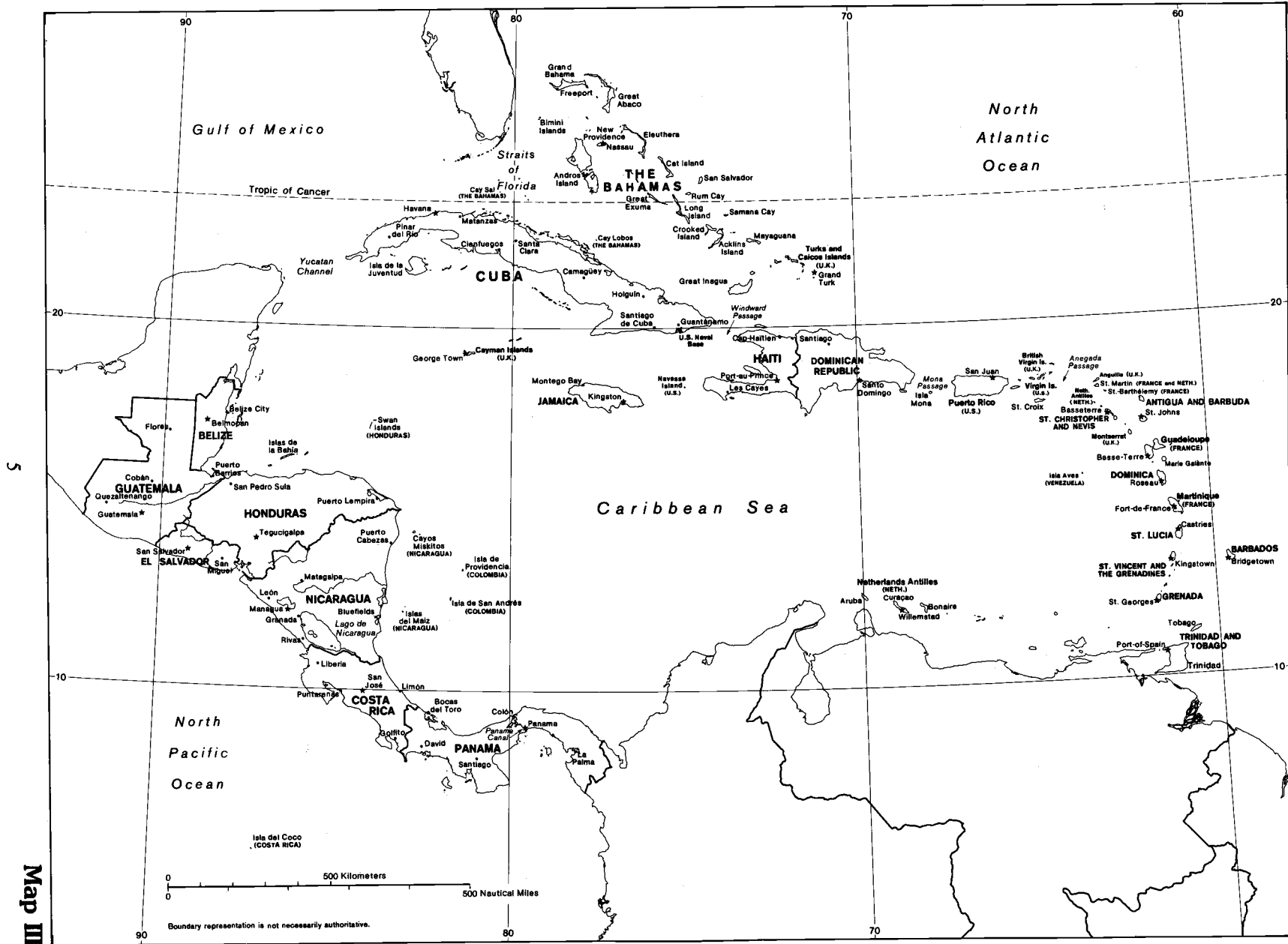


Map I

North America



Map II



Gulf of Mexico

North Atlantic Ocean

Caribbean Sea

North Pacific Ocean

THE BAHAMAS

CUBA

HAITI

DOMINICAN REPUBLIC

JAMAICA

GUATEMALA

HONDURAS

NICARAGUA

COSTA RICA

PANAMA

ANTIGUA AND BARBUDA

ST. CHRISTOPHER AND NEVIS

DOMINICA

ST. LUCIA

ST. VINCENT AND THE GRENADINES

GRENADA

TRINIDAD AND TOBAGO

TOBAGO

TRINIDAD

TRINIDAD

TRINIDAD

TRINIDAD

TRINIDAD

TRINIDAD

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TRINIDAD

TRINIDAD

TRINIDAD

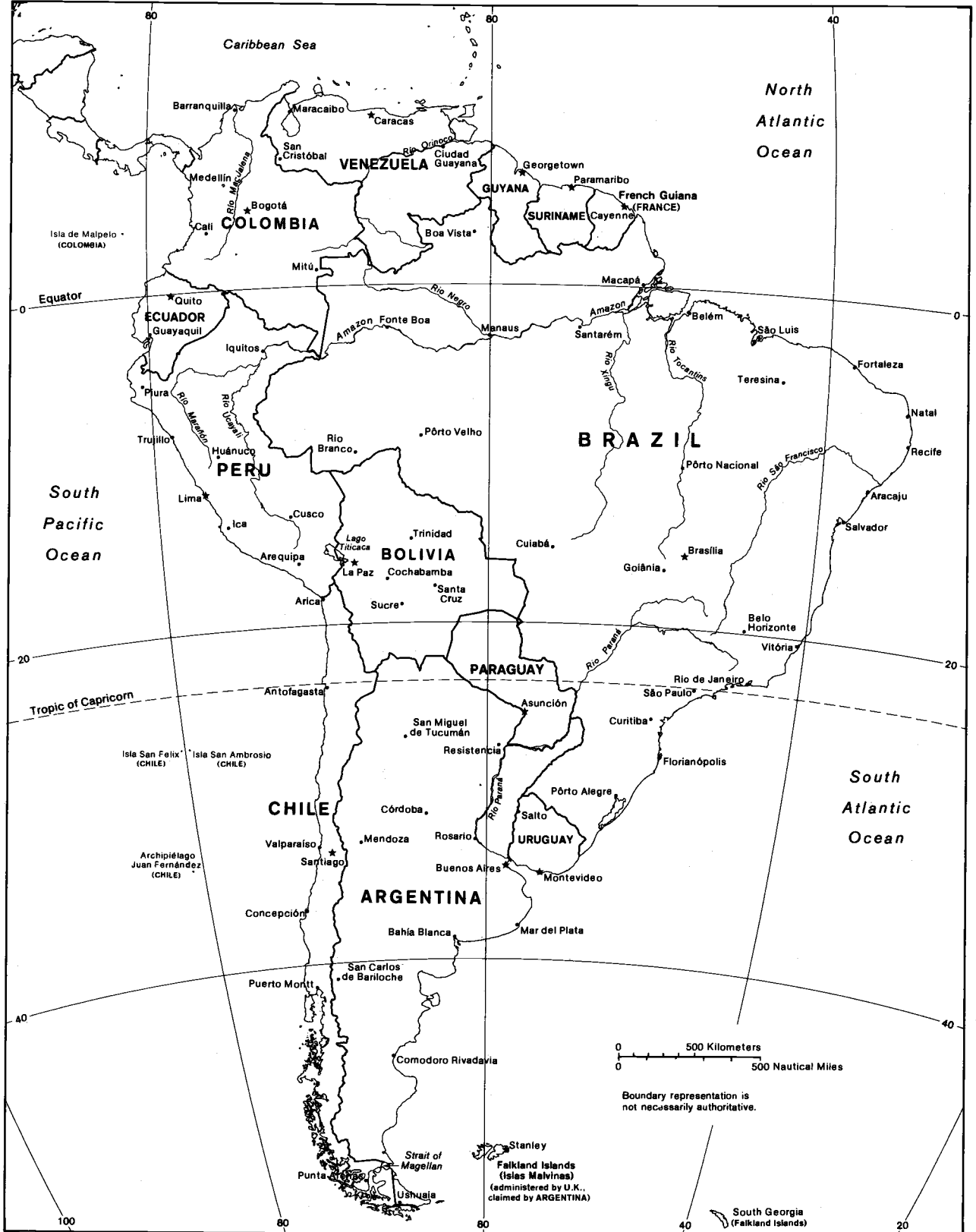
TRINIDAD

TRINIDAD

TRINIDAD

TRINIDAD

South America



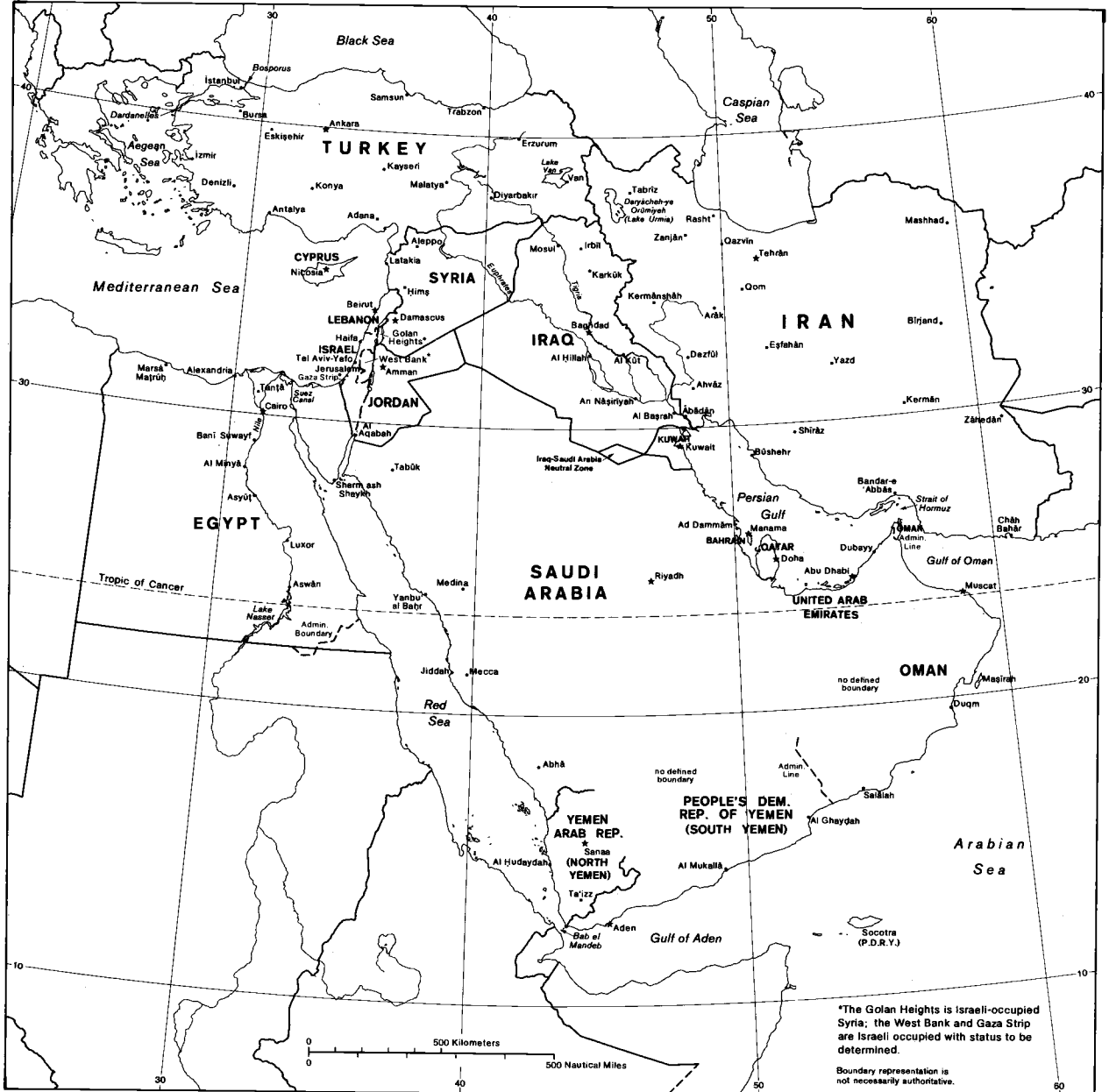
Map IV

Europe



Map V

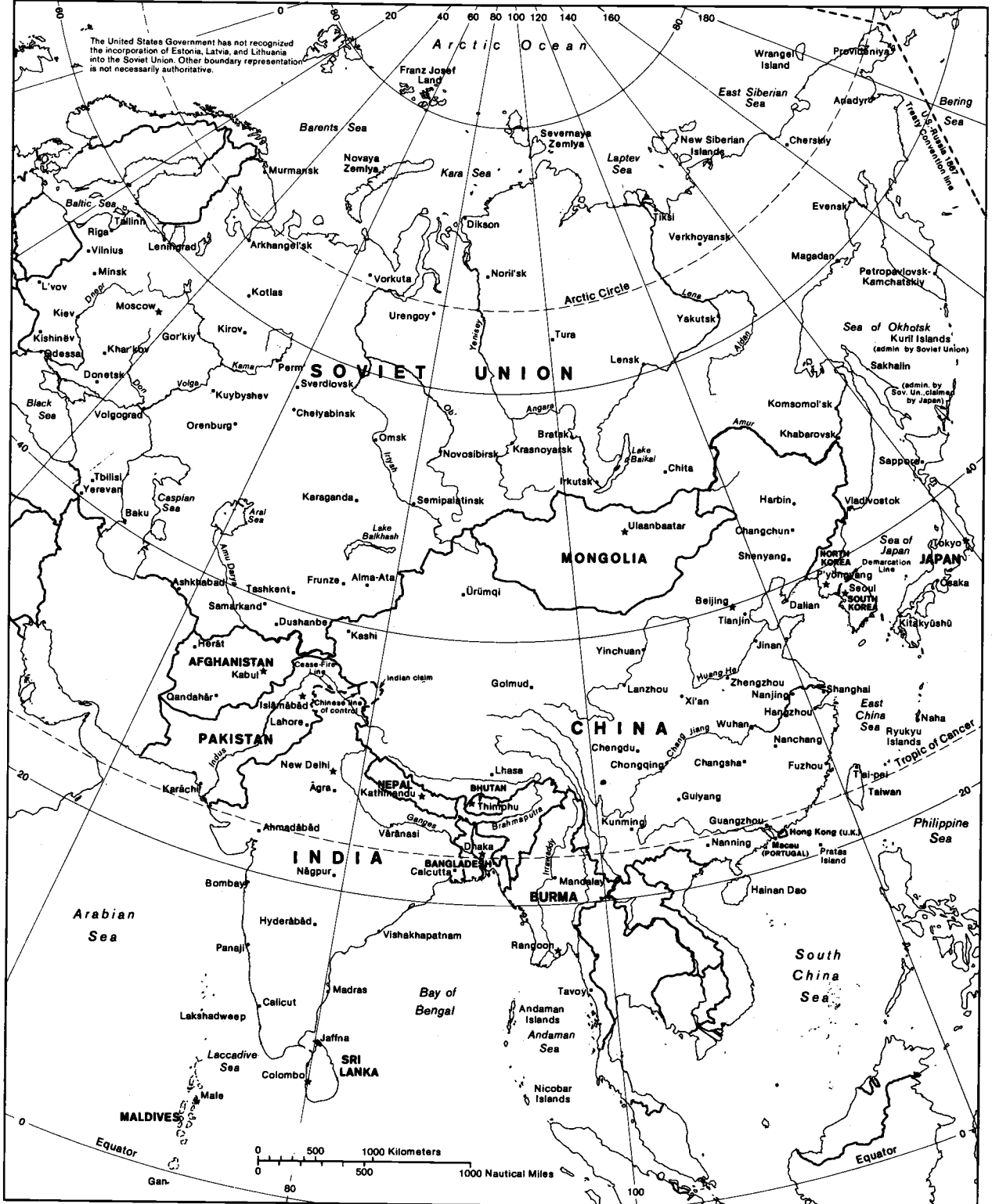
Middle East



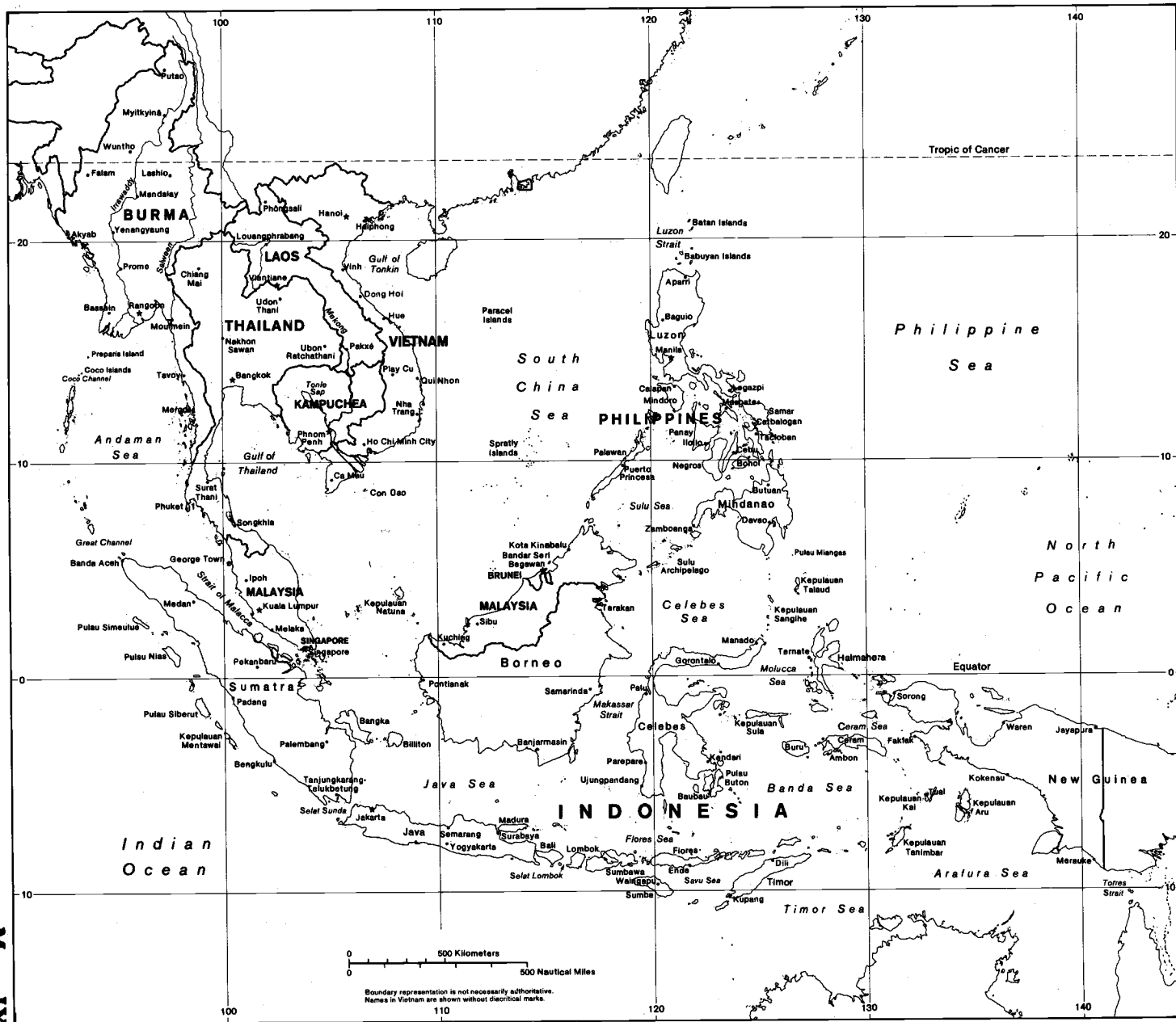
Map VI



Soviet Union, East and South Asia



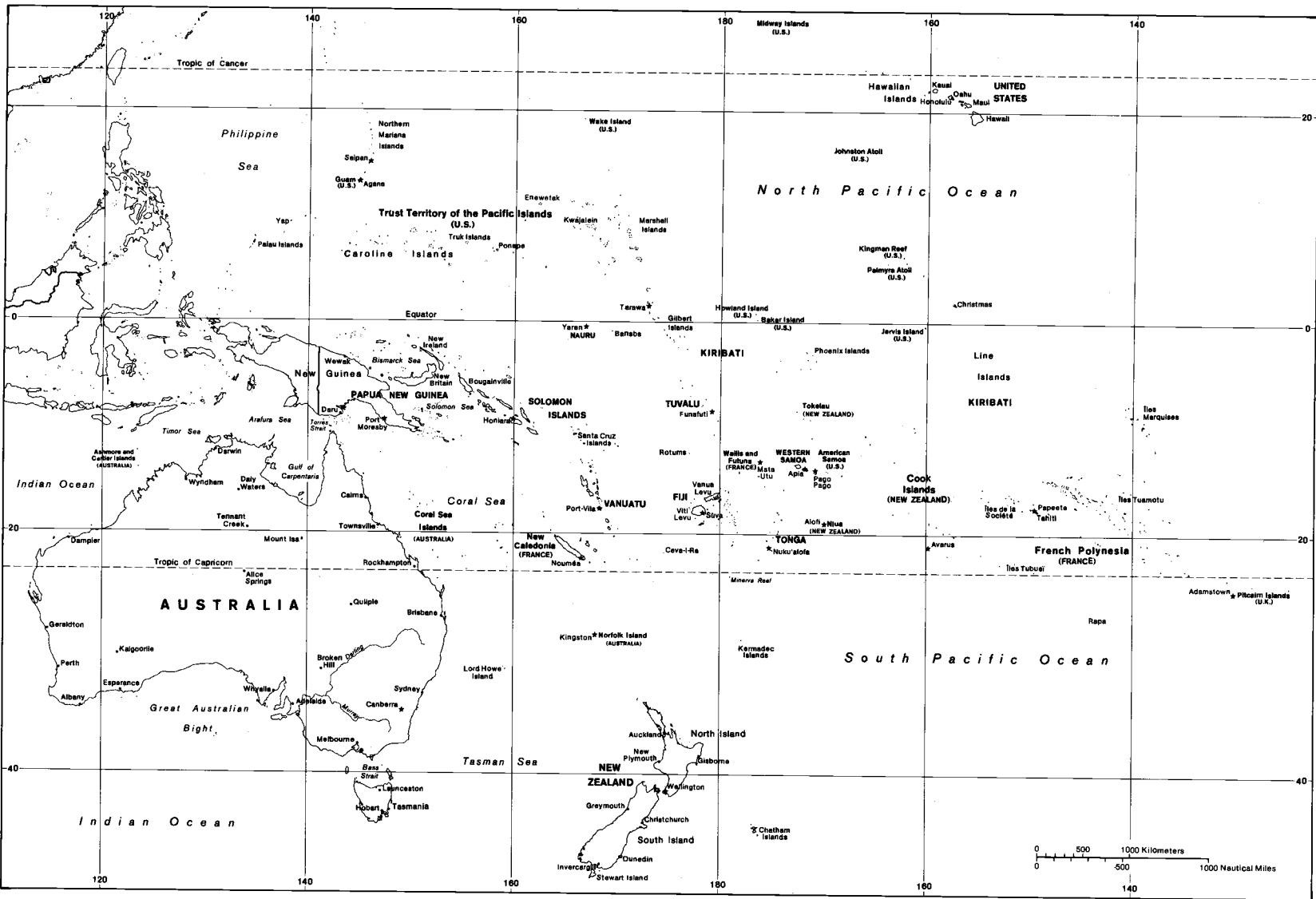
Map VIII



11

Map IX

Southeast Asia



12

Map X

AFGHANISTAN

(No recent information)



(See reference map VIII)

- G Department of Mines and Geology
Ministry of Mines and Industries
Darulaman
Kabul
President: Noor Ahmad Azimi
- G Ministry of Mines and Industries
Darulaman
Kabul
Minister: Abdullah Samah Salah
- H Ministry of Water and Power
Kabul
Minister: Jumma Mohammed Mohammadi
- C Cartographic and Cadastral Survey Institute
Institute of Cartography
Kabul
Director: Amir Ahmad
- R Afghan National Petroleum Company
Ministry of Mines and Industries
Kabul
President: Abul Samad Salah
Acting Deputy Minister Director-General:
Halizullah Nawabi

ALBANIA

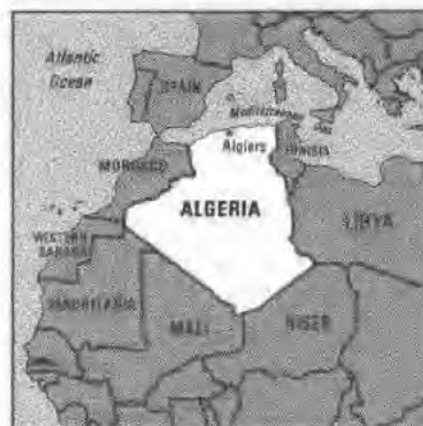
(No recent information)



(See reference map V)

- G Ministry of Industry and Mining
Tirane
- C Association of Scientific Workers of the
Peoples Republic of Albania
Tirane
President: Kol Papatisto
- H Instituti Hidrometeorologjik
214 rue Kong्रेसи Permetit
Tirane

ALGERIA



(See reference map VII)

- G Direction des Mines et de la Géologie
Ministère de l'Industrie Lourde
Rue Ahmed Bey de Constantine
Immeuble "Le Colyseé"
Algiers
Directeur: Mohamed Ramdani

G Institut des Géo-Sciences
 Université de Sciences et de la Technologie d'Oran
 B.P. 1505
 El-M'Nouar - Oran

G Centre National de Recherche et d'Applications
 des Géosciences
 Université d'Alger
 2, rue Didouche Mourad
 Alger
 Directeur: Nacer-Eddine Kazi-Tani

G, H Institut des Sciences de la Terre
 Université de Constantine
 Ain El Bey - Constantine

G,H Institut de Biologie et des Sciences de la Terre
 Université d'Oran
 Es-Senia - Oran

G,C Institut des Sciences de la Terre
 Université des Sciences et de la Technologie
 Houari Boumediene
 B.P. 9
 Dar Al Beida - Alger
 Directeur: Mohamed Tefiani

H Centre National des Zones Arides
 Beni Abbas - Bechar
 Directeur: Mme N. Bounaga

H Secrétariat d'Etat aux Forêts et à la Mise en Valeur
 des Terres
 Immeuble des Forêts
 Ex. Bois de Boulogne
 El Madania, Alger
 Secrétaire d'Etat: Mohamed Rouighi

H Ministère de l'Hydraulique
 Ex-Grand Séminaire
 Kouba, Algiers
 Minister: Brahim Brahimi

H Institut d'Hydraulique
 Université des Sciences et de la Technologie d'Oran
 B.P. 1505
 El-M'Nouar - Oran

C Ecole Nationale de Sciences Exactes
 B.P. 13
 Arzew
 Directeur: Rahel Redjouane

H Institut d'Hydraulique
 Université des Sciences et de la Technologie Houari
 Boumediene
 B.P. 9
 Dar El Beida - Alger

H Institut d'Hydro-technique et de Bonification
 B.P. 31
 Blida

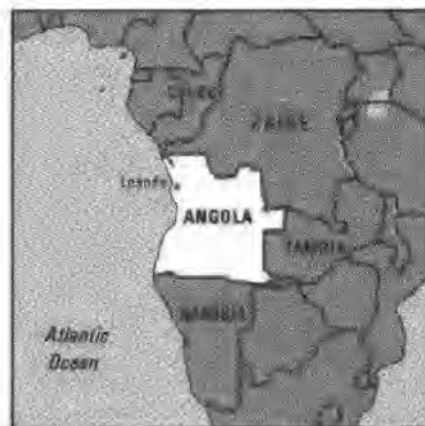
C Institut National de Cartographie
 123 rue de Tripoli
 B.P. 32 Hussein-Dey
 Algiers
 Director: Halim Mansour

R Ministère de l'Energie et des
 Industries Petrochimiques
 80, Avenue Ahmed Ghermoul
 Algiers
 Minister: Belkacem Nabi

R Ministère de l'Industrie Lourde
 Immeuble "Le Colisée"
 Rue Ahmed Bey de Constantine
 Algiers
 Minister: Merbah Kasdi

ANGOLA

(No recent information)



(See reference map VII)

G,C,R Direcção de Serviços de Geologia e Minas
 Caixa Postal 1260-C
 Luanda
 Director: Jorge Manuel Trigo de Mira

G Observatório Meteorológico e Magnético
 João Capelo
 Rua Diogo Cão 20
 Caixa Postal 1288-C
 Director: Alberto Leão Diniz

ARGENTINA



(See reference map IV)

- | | | | |
|---|---|---|---|
| G | <p>Servicio Minero Nacional
Avenida Santa Fe 1548, 4° Piso
(1060) Buenos Aires
Director: Dr. Oscar Valentín Reverberi</p> | G | <p>Yacimientos Carboníferos Fiscales
Avenida R. Saenz Peña 1190 2° Piso
1035 Buenos Aires
Administrador General: Lic. Jose Antonio Iturriza</p> |
| G | <p>Servicio Geológico Nacional
Secretaría de Estado de Minería
Avenida Santa Fe 1548
1060 Buenos Aires
Director: Dr. Oscar J. Ruiz Huidobro</p> | G | <p>Instituto de Geocronología y Geología Isotópica
Facultad de Ciencias Exactas y Naturales
Ciudad Universitaria Nunez Pabellon 2
1428 Buenos Aires
Director: Dr. Enrique Linares</p> |
| G | <p>Gerente de Exploración
Yacimientos Petrolíferos Fiscales
Avenida Roge Saenz Pena 777
1364 Buenos Aires
Engineer: Dr. Enrique Mainardi</p> | G | <p>Secretaría de Estado de Ciencia y Tecnología
Cordoba 831
(1054) Buenos Aires
Secretary: Tcnl. Mario Antonio Remetin</p> |
| G | <p>Comision Nacional de Investigaciones
Espaciales (CNIE)
Dorrego 4018
1425 Buenos Aires
Presidente: Brig. (RE) Guillermo Héctor Marotta</p> | H | <p>Servicio de Hidrografía Naval
Montes de Oca 2124
(1271) Buenos Aires
Jefe: Cnel. Alberto José Valdes</p> |
| G | <p>Fabricaciones Militares
Cabildo 65, 2° Piso
1426 Buenos Aires
Sub-Director de Desarrollo Minero
Cnel. J. Luis Cayetano Torres</p> | H | <p>Instituto Nacional de Ciencia y Técnica Hídricas
Viamonte 542
1053 Buenos Aires
Presidente: Com. (RE) Ing. Oscar Gregorio Velez</p> |
| G | <p>Comision Nacional de Energía Atómica
Avenida Libertador 8250 (1429)
Buenos Aires
President: Dr. Carlos Castro Madero</p> | C | <p>Instituto Geográfico Militar
Avenida Cabildo 301 (1426)
1426 Buenos Aires
Director: Cnel. Jorge Alberto Bavastro</p> |
| | | R | <p>Secretaría de Estado de Minería
Av. Julio A. Roca 651 Piso 2°
1322 Buenos Aires
Secretary: Ing. Luis F. Gottheil</p> |
| | | R | <p>Director Nacional de Combustibles
Secretaría de Estado de Energía
Avenida Julio A. Roca 651 7° Piso
1322 Buenos Aires
Director: Dr. Floréncio Pedro Cuervo</p> |
| | | R | <p>Director Nacional Economía Minera
Avenida Santa Fe 1548, 5° Piso
(1060) Buenos Aires
Director: Dr. Pelayo Peñas</p> |

AUSTRALIA



(See reference map X)

- G, H, C, R Department of Resources and Energy
G. P. O. Box 858
Canberra, City, A.C.T. 2601
Minister: Senator Peter Walsh
- G, C Bureau of Mineral Resources, Geology, and Geophysics
P.O. Box 378
Director: R. W. R. Rutland
- G National Energy Office
G.P.O. 858, Canberra City
A.C.T. 2601
Director: B. W. Fraser
- G Energy Policy Division
G.P.O. 858, Canberra City
A.C.T. 2601
First Assistant Secretary: E. W. C. Mathews
- G Regional Research and Development Division
G.P.O. 858, Canberra City
A.C.T. 2601
First Assistant Secretary: W. B. Rotsey
- G Uranium and General Division
G.P.O. 858, Canberra City
A.C.T. 2601
First Assistant Secretary: P. Ryan
- G Oil Industry Policy Branch
G.P.O. 858, Canberra City
A.C.T. 2601
Assistant Secretary: A. G. Christie
- G Oil Industry Operations Branch
G.P.O. 858, Canberra City
A.C.T. 2601
Assistant Secretary: M. N. Lawrence
- G Oil and Gas Division
G.P.O. 858, Canberra City
A.C.T. 2601
First Assistant Secretary: J. C. Starkey
- G, H Institute of Energy and Earth Resources
Commonwealth Scientific and Industrial Research Organization
P.O. Box 225
Dickson, A.C.T., 2602
Director: I. E. Newnham
- H Water and Development Division
Department of Resources and Energy
P.O. Box 858
Canberra City, A.C.T. 2601
First Assistant Secretary: A. Manderson
- H Australian Water Resources Council
c/o Department of Resources and Energy
G.P.O. 858
Canberra, A.C.T. 2601
Secretary: J. A. Shaw
- R Department of Trade
Edmund Barton Bldg., Kings Avenue
Barton, A.C.T., 2600
Minister: Deputy Prime Minister Lionel Bowen
and Minister for Trade
- R Australian Atomic Energy Commission
Private Mail Bag
Sutherland, N.S.W. 2232
Chairman: Professor M. H. Brennan
- R Joint Coal Board
G.P.O. 3842
Sydney, N.S.W. 2001
Chairman: G. J. Tredinnick

AUSTRIA



(See reference map V)

- G Geologische Bundesanstalt
Rasumofskygasse 23
A-1031 Vienna
Director: Prof. Dr. Traugott Gättinger
- C Bundesamt für Eich- und Vermessungswesen
Gruppe Landesaufnahme
Krotenthallergasse 3
A-1080 Vienna
President: Hofrat Dipl. Ing. Dr. Johann Bernhard
- C Bundesamt f. Eich- u. Vermessungswesen
Gruppe Kataster, Grundlagenvermessung
Staatsgrenzen
Fasangartengasse 101
A-1130 Vienna
Director: Hofrat Dipl. Ing. Hubert Höllinger
- C Österreichische Kommission für die
Internationale Erdmessung
Technische Universität Wien
Gusshausstrasse 27-29
A-1040 Vienna
President: Prof. Dipl. Ing. Dr. Karl Rinner, TU
Graz Rechbauerstrasse 12, A-8010 Graz
Secretary: Prof. Dipl. Ing. Dr. Kurt Bretterbauer
- H Hydrographisches Zentralbuero
Bundesministerium für Land- und Forstwirtschaft
Marxergasse 2
A-1030 Vienna
Secretary: Dipl. Ing. Ernst Glasel
- H,G Zentralanstalt für Meteorologie und Geodynamik
Hohe Warte 38
A-1190 Vienna
Director: Prof. Dr. Heinz Reuter

R,C Bundesministerium für Handel, Gewerbe und
Industrie
Stubenring 1
A-1011 Vienna
Director: Dipl. Ing. Dr. Georg Sterk

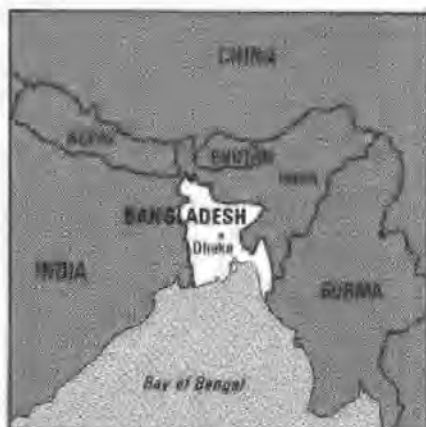
BAHAMAS, THE



(See reference map III)

- H Water Corporation
Ministry of Works and Utilities
P.O. Box N-3905
Nassau
General Manager: E. George Moss
- C Director of Lands and Surveys
P.O. Box N-592
Nassau
Director: Harold A. Hing-Cheong
- R Minister of Economic Affairs
P.O. Box N-4596
Nassau
Minister: The Honorable Alfred T. Maycock

BANGLADESH

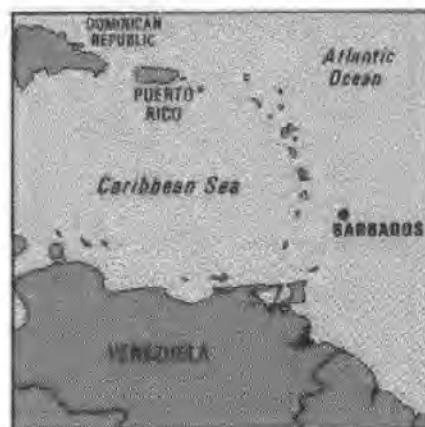


(See reference map VIII)

- G Geological Survey
Pioneer Road
Segun Bagicha
Dhaka
Director General: M. Abu Bakr
- G Bangladesh Space Research and Remote
Organization (SPARRSO)
Sher-e-Banglanagar
Agargaon, Taitola
Dhaka
Principle Investigator: Dr. Faruk A. Khan
- C Land Records and Survey Department
Tejgaon Industrial Area
Dhaka
Director: Abdul Bari Tarafder
- C Survey of Bangladesh
Tejgaon Industrial Area
Dhaka
Director General: M. Hafizuddin
- H Ground Water Circle
Bangladesh Water Development Board
48 Motijheel Commercial Area
Dhaka
Director: Gulam Mawla
- H Surface Water Hydrology—I
Bangladesh Water Development Board
72 Green Road
Dhaka
Director: Abdul Matin
- H Surface Water Hydrology—II
Bangladesh Water Development Board
72 Green Road
Dhaka
Director: A. Wazed

- R Petro-Bangla
[Bangladesh Oil and Gas Development Corp.]
122-124 Motijheel Commercial Area
Dhaka
Chairman: Group Capt. Kazi Aftabuddin Ahmed
- R Ministry of Energy and Mineral Resources
[Petroleum and Mineral Resources Division]
Main Building (1st Floor)
Bangladesh Secretariat
Dhaka
Additional Secretary In-Charge: Shafiqul Alam
- R Bangladesh Mineral Exploration and
Development Corporation (BMEDC)
H.B.F.C. Building (9th Floor)
22 Purana Paltan
Dhaka
Chairman: M. W. Ali

BARBADOS



(See reference map III)

- G Ministry of Finance and Planning
Governmental Headquarters
St. Michael
Chief Geologist: L. H. Barker

BELGIUM



(See reference map V)

- G Institut Géotechnique de l'Etat
28 Square de Meeus
1040 Brussels
Inspector General: E. Goelen
- G Service Géologique de Belgique
13 Rue Jenner
1040 Brussels
Inspector General: J. Graulich
- C Institut Géographique National
13 Abbaye de la Cambre
1050 Brussels
Director General: R. Verberckt
- C Ministère des Travaux Publics
Service de Topographie et de Photogrammetrie
155 Rue de La Loi
1040 Brussels
Chief Engineer: R. De Fays
- H Ministère des Affaires Economiques
Service Hydrologique
30 Rue J.A. De Mot
1040 Brussels
Inspector General: H. Gregoire
- H Ministère des Travaux Publics
Administration des Voies Hydrauliques
155 Rue de La Loi
1040 Brussels
Director General: J. Demoen
- R Ministère des Affaires Economiques
Administration de l'Energie
30 Rue J.A. De Mot
1040 Brussels
Director General: M. Frerotte
Inspector General for Coal: F. Sonck
Chief Engineer for Petroleum-Gas: J. Hols

- R Comité National de l'Energie
6 Rue de L'Industrie
1040 Brussels
Secretary General: H. Bernard
- H Association Nationale des Services d'Eau
(ANSEAU)
255 B.6 Chaussee de Waterloo
1060 Brussels
President: M. Snel

BELIZE

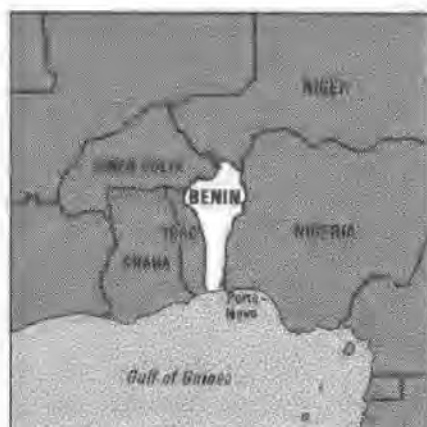


(See reference map III)

- G Ministry of Natural Resources
Belmopan
Minister: Florencio Manin
Permanent Secretary: James Hyde
- G Ministry of Energy and Commerce
Belmopan
Minister: Louis Sylvester
Permanent Secretary: John Longworth

BENIN (FORMERLY DAHOMEY)

(No recent information)

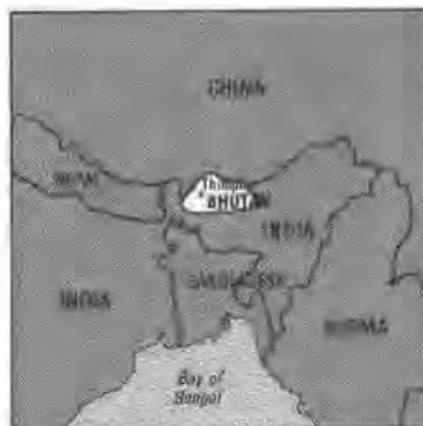


(See reference map VII)

- G Direction des Mines, de la Géologie,
et des Hydrocarbures
Ministère de l'Équipement
B.P. 249
Cotonou
- G,H Office de la Recherche Scientifique et
Technique Outre-mer (ORSTOM)¹
Centre de Cotonou
B.P. 390
Cotonou
- G Centre National de la Recherche
Scientifique et Technique
Ministère des Enseignements Technique
et Supérieur
Cotonou
- G Département des Recherches Agronomiques
Ministère des Enseignements Technique
et Supérieur
Cotonou
- G Centre National de la Recherche Appliquée
Ministère de L'Enseignement de Premier Degré
Porto Novo
- H Direction de l'Hydraulique
Ministère des Travaux Publics,
Mines, et Énergie
B.P. 73
Cotonou
- C Direction de la Topographique et du Cadastre
Ministère de l'Équipement
B.P. 360
Cotonou

¹French research organization, no governmental affiliation.

BHUTAN



(See reference map VIII)

- G,C,H Department of Trade and Industries
Thimphu
Joint Director: Ygyen Namgyel

BOLIVIA



(See reference map IV)

- G,H,C Servicio Geológico de Bolivia (GEOBOL)
Federico Zuazo, Esq. Reyes Ortiz
Casilla de Correo 2729
La Paz
Director: Oscar Ballivian
- G,C Centro de Investigación y Aplicación
de Sensores Remotes (CIASER)
Federico Zuazo, Esq. Reyes Ortiz
Casilla de Correo 2729
La Paz
Director of Department: René Valenzuela Rivero
- G Fondo Nacional de Exploración Minera (FNEM)
Calle Cordero 257
Casilla De Correo 5796
La Paz
General Manager: Abelardo Villalpando

- G Observatorio San Calixto
Calle Jenaro Sanjinez 701
Casilla De Correo 5939
La Paz
Director: R. P. Ramon Cabre
- G Empresa Siderúrgica Boliviana (SIDERSA)
Avenida 16 de Julio No. 1769
La Paz
Casilla de Correo 7082
General Manager: Rene Rengel-Dominguez
- G Corporación Minera de Bolivia (COMIBOL)
Avenida Mariscal Santa Cruz 1092
Casilla de Correo 349
La Paz
General Manager: Oscar Torrico-Pedrazas
Technical Manager: Rene Saenz-Molina
- G,R Yacimientos Petrolíferos Fiscales Bolivianos (YPFB)
Calle Bueno 185
Casilla de Correo 401
La Paz
General Manager: Carlos Uría
Exploration Manager: Vicet Ponce de Leon
- C Instituto Geográfico Militar
Avenida Saavedra, Cuartel Miraflores
La Paz
Director: Hernan Alfaro-Cortez
- H Oficina de Aguas Potables por Comunidades
La Paz
Chief: P. A. Parada P.
- H Servicio Nacional de Meteorología e Hidrología
Edificio "La Urbana" 6° Piso
Avenida Camacho, No. 1485
La Paz
Director General: Mario Canedo-Daza
- R Ministerio de Minería y Metalurgia
Avenida 16 de Julio 1769
La Paz
Casilla de Correo 8686
Minister: Carlos Carvajal Nava
- G Instituto de Investigaciones Minero-Metalúrgico (IIMM)
Calle Junín 1037
Casilla de Correo 600
Oruro
Director: Mario Paulsen
- R Ministerio de Energía e Hidrocarburos
Avenida Mariscal Santa Cruz 1322
Casilla de Correo 4819
La Paz
Minister: Luis Saucedo Justiniano

- G,R Comisión Boliviana de Energía Nuclear (COBOEN)
Calle 6 de Agosto 2905
Casilla de Correo 4821
La Paz
Director: Antonio Rondon
- H,C Servicio de Hidrografía Naval
Avenida Argentina 2057
Casilla de Correo 3052
La Paz
Director: Alberto Saenz-Klinsky

BOTSWANA



(See reference map VII)

- G,C,H Geological Survey Department
Ministry of Mineral Resources and Water Affairs
Private Bag 14
Lobatse
Director: Dr. G. C. Clark
- C Department of Surveys and Lands
Ministry of Local Government and Lands
Private Bag 37
Gaborone
Director: W. L. Dickson
- H Department of Water Affairs
Ministry of Mineral Resources and Water Affairs
P. B. 29
Gaborone
Director: G. M. Quraishi
- R Department of Mines
Ministry of Mineral Resources and Water Affairs
Private Bag 49
Gaborone
Mining Commissioner: Peter Cain

R Ministry of Mineral Resources and Water Affairs
Private Bag 29
Gaborone
Permanent Secretary (all departments):
Charles Tibone

BRAZIL



(See reference map IV)

G,C Instituto de Pesquisas Espaciais (INPE)
Caixa Postal 515
12200 São José dos Campos
São Paulo, SP
Director General: Nelson de Jesus Parada

G Companhia de Pesquisa de Recursos Minerais (CPRM)
Avenida Pasteur, 404 - Anexo, 2º Andar,
Praia Vermelha
22290 Rio de Janeiro, RJ
President: General Salvador
Goncalves Mandim

G Rio Doce Geológica e Mineracao S/A (DOCEGEO)
Companhia Vale do Rio Doce (CVRD)
Av. Presidente Wilson 210, 11º Andar
22030 Rio de Janeiro, RJ
President CVRD: Eliezer Batista
Director-Superintendent of DOCEGEO:
Francisco de Assis Fonseca

G,R Petroleo Brasileiro S.A. (PETROBRAS)
Avenida Republica do Chile, 65, 22º Andar
20031 Rio de Janeiro, RJ
President: Shigeaki Leki

G,R Departamento Nacional de Producao Mineral (DNPM)
SAN - Q I, Bloco B, 3º Andar, Sala 308
70040 Brasilia, D.F.
Director General: Yvan Barretto de Carvalho

G,R Empresas Nucleares Brasileiras S.A. (NUCLEBRAS)
SAN - Bloco D - 8º Andar
70040 Brasilia, DF
President: Dario Jose Goncalves Gomes
Director of Mineral Exploration:
John M. A. Forman
Av. Presidente Wilson, 231, 22º Andar
20030 Rio de Janeiro, RJ

H Departamento Nacional de Obras de Saneamento (DNOS)
Av. Pres. Vargas 62, 11º Andar
20091 Rio de Janeiro, RJ
Director General: José Reinaldo Carneiro Tavares
WMO/CHY Representative: Paulo Poggi Periera

C Diretoria do Serviço Geográfico do Exército (DSG)
SMU - QG Ex., Bloco F, 2º Pav.
70630 Brasilia, D.F.
Director: General Aristides Barreto

C Diretoria de Geodesia e Cartografia
Instituto Brasileiro de Geografia e Estatística (IBGE)
Avenida Brasil, 15015
21241 Rio de Janeiro, RJ
Director: Mauro Pereira de Mello

H Departamento Nacional de Aguas e Energia Eletrica (DNAEE)
Ministerio das Minas e Energia
Esplanada dos Ministerios
Bloco J, 3º Andar, Sala 300
70056 Brasilia, D.F.
Director General: Alvarino de Araujo Pereira

C Projeto RADAM
Av. Antonio Carlos Magalhaes, 1131
Edf. Marechal Ademar de Queiroz,
4º Andar
40000 Salvador, BA
Executive Secretary: Antonio Luiz
Sampaio de Almeida

R,G Ministry of Mines and Energy
Esplanada dos Ministerios—Bloco J, 8º Andar
70056 Brasilia, D.F.
Minister: Cesar Cals de Oliveira Filho

R Conselho Nacional do Petroleo (CNP)
Ministerio das Minas e Energia
SGAN - Q. 603 Modulos J, I e H
70830 Brasilia, DF
President: General Oziel Almeida Costa

R,G Comissão Nacional de Energia Nuclear
(CNEN)
Rua General Severiano, 90
Botafogo
22290 Rio de Janeiro, RJ
President: Rex Nazare Alves
Department of Mineral Resources (CNEN):
Carlos Pires Ferreira

BRUNEI

(No recent information)



(See reference map IX)

G The Government Geologist
Bandar Seri Begawan

C Survey Department of Brunei
Bandar Seri Begawan

BULGARIA



(See reference map V)

G Bulgarian Academy of Sciences
Geological Institute
Acad. G. Bonchev Street, Block 24
Sofia 1113
Director: Prof. Dr. Ivan Velinov

G,R Research Institute for Mineral Resources
23, Chr. Kabakchiev Blvd.
Sofia 1505
Director: Dr. Chr. Datchev

G Laboratory of Experimental and Technical
Mineralogy at the Bulgarian Academy of
Sciences
6, Moskovska Street
Sofia 1000
Director: Prof. Mihail Maleev

G Committee of Geology
22, G. Dimitrov Blvd.
Sofia 1000
President: Dr. Rodion Dokov

G Ministry of the Energy and Raw
Material Resources
22, G. Dimitrov Blvd.
Sofia 1000
Minister: Dr. Todor Bojinov

G Centre for Earth Sciences at the
Bulgarian Academy of Sciences
Acad. G. Bonchev Street, Block 3
P.O. Box 134,
Sofia 1113
Director: Corr. Member, Prof. Kiril Mishev

G Bulgarian Academy of Sciences
Institute of Geography
Acad. G. Bonchev Street, Block 3,
Sofia 1113
Director: Corr. Member, Prof. Kiril Mishev

G Bulgarian Academy of Sciences
Geophysical Institute
Acad. G. Bonchev Street, Block 3,
Sofia 1113
Director: Dr. Dimitar Samardjiev

G Bulgarian Academy of Sciences
Geotechnical Laboratory
Acad. G. Bonchev Street, Block 24
Sofia 1113
Director: Prof. Minko Minkov

G National Oceanographic Committee
8, Slavijanska Street
Sofia 1000

G Bulgarian Academy of Sciences
Institute of Marine Research and Oceanology
P. Box 152
Varna 9000
Director: Dr. Zdravko Belberov

G Bulgarian Academy of Sciences
Central Laboratory for Space Research
6, Moskovska Street
Sofia 1000
Director: Corr. Member, Prof. Kiril Serafimov

C Bulgarian Academy of Sciences
Central Laboratory for Geodesy
1, 7 Noemvri Street
Sofia 1000
Director: Prof. Dr. Nikola Georgiev

H Bulgarian Academy of Sciences
Institute of Waterproblems
Acad. G. Bonchev Street, Block 3
Sofia 1113
Director: Prof. Peter Ignatov

BURMA



(See reference maps VIII and IX)

G Department of Geological Survey and Exploration
Ministry of Mines
Kanbe Road, Yankin P.O.
Rangoon
Managing Director: Col. Aung Din

G Applied Geology Department
6-1/2 Mile Prome Road
Rangoon
Director: Dr. Myint Lwin

G Myanma Oil Corporation
604 Merchant Street
Rangoon
Managing Director: U Than Nyunt

G No. (1) Mining Corporation
104 Strand Road
Rangoon
Managing Director: U Ko Ko Than

G No. (2) Mining Corporation
Kanbe Road, Yankin P.O.
Rangoon
Managing Director: Lt. Col. Maung Thuang

G No. (3) Mining Corporation
Rangoon-Insein Road, Thamaing
Rangoon
Managing Director: U San Maung

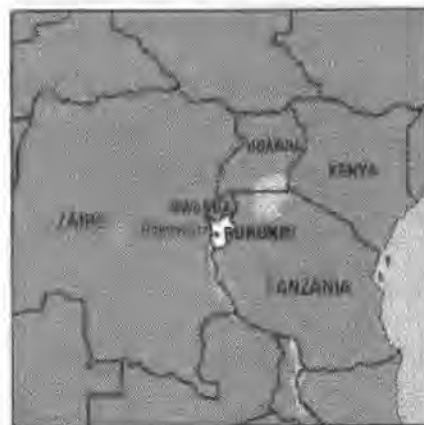
H Irrigation Department
9/21 Strand Road
Ministry of Agriculture and Forestry
Rangoon
Director General: U Maung Maung Kyi

H Directorate of Meteorology and Hydrology
Kaba Aye Pagoda Road
Rangoon
Director General: U Thu Ta

C Central Research Organization
Kanbe Road, Yankin P.O.
Rangoon
Director General: Col. Oo Saw Hla

C Survey Department
Ministry of Agriculture and Forestry
Thirimingala Lana
Kaba Aye Pagoda Road
Rangoon
Director General: U Lun Pe

BURUNDI



(See reference map VII)

G Ministère des Travaux Publics, de l'Énergie, et des
Mines [Ministry of Public Works, Energy and
Mines]
Boite Postale 1860
Bujumbura
Ministre: S. E. Isidore Nyaboya
Chef de Cabinet: Gelase Boyoya

CAMEROON



(See reference map VII)

- G Délégation Générale à la Recherche Scientifique et Technique (DGRST)
B.P. 1457
Yaoundé
Delegate-General: Victor Anomah Ngu
- G Office de la Recherche Scientifique et Technique d'Outre-mer (ORSTOM), Centre de Yaoundé²
B.P. 193
Yaoundé
Director: Louis Perrois
- G Direction des Mines et de la Géologie
Ministry of Mines and Energy
B.P. 70
Yaoundé
Director: Bernard Moudio
- G,C,H Institut de Recherches Géologiques et Minières (IRGM)
B.P. 4110
Yaoundé
Director: Soba Djallo
Chief Hydrology Service: Emmanuel Naah
- C Centre Géographique National
B.P. 157
Ave. Monseigneur Vogt
Yaoundé
Director: Daniel Schamukong
- C,H Institut des Recherches Agricoles et Forestières (IRAF)
B.P. 2123
Yaoundé
Director: Anthony Maimo

CANADA



(See reference map II)

- G Canada Centre for Mineral and Energy Technology
Department of Energy, Mines, and Resources
555 Booth Street
Ottawa, Ontario, K1A 0G1
Director General: W. G. Jeffery
- G Earth Physics Branch
Department of Energy, Mines, and Resources
1 Observatory Crescent
Ottawa, Ontario K1A 0Y3
Director General: J. G. Tanner
- G Geological Survey of Canada
Department of Energy, Mines, and Resources
601 Booth Street
Ottawa, Ontario, K1A 0G1
Director General: Dr. Raymond A. Price
- H Inland Water Directorate
Department of the Environment
St. Joseph Boulevard
Hull, Quebec K1A 0E7
Director General: N. H. James
- C Surveying and Mapping Branch
Department of Energy, Mines and Resources
615 Booth Street
Ottawa, Ontario, K1A 0E9
Director General: R. E. Moore
- R Mineral Policy Sector
Department of Energy, Mines, and Resources
580 Booth Street
Ottawa, Ontario, K1A 0E4
Assistant Deputy Minister: C. G. Miller
- R National Energy Board
473 Albert Street
112 Kent Street
Ottawa, Ontario, K1A 0E5
Chairman: C. G. Edge

²French research organization; no governmental affiliation.

- R Energy Policy Sector
 Department of Energy, Mines, and Resources
 580 Booth Street
 Ottawa, Ontario, K1A 0E4
 Senior Assistant Deputy Minister: L. Good
- R,H Northern Affairs Program
 Department of Indian and Northern Affairs
 Les Ferrasses de la Chaudière
 Ottawa, Ontario K1A 0H4
 Assistant Deputy Minister: G. N. Faulkner

CENTRAL AFRICAN REPUBLIC



(See reference map VII)

- G Ministry of Water, Lands, Games Fishing, and Tourism
 Bangui
 Minister: Lieutenant-Colonel Sébastien Guipi
- G,C Ministry of Public Works and Town Development
 Bangui
 Minister: Brigadier General Abel Nado
- G,R,H,C Office de la Recherche Scientifique et Technique
 Outre-mer (ORSTOM), Centre de Bangui³
 B.P. 893
 Bangui
 Directeur: Jean-Paul Cointepas
- G,H Ministry of Energy and Hydraulics
 Bangui
 State Minister: Lieutenant-Colonel
 Thomas Mapouka
- G Ministry of Agriculture and Animal Husbandry
 Bangui
 State Minister: Lieutenant-Colonel
 Alphonse Gombadi
- G,R High Commission for Mining and Geology
 Bangui
 High Commissioner: Dr. Jean Euded Tèya
- C,G,R,H High Commission for Scientific and Technological
 Research
 Bangui
 High Commissioner: Jean-Claude Kazagué
- C Institut National Géographique (ING)
 B.P. 165
 Bangui
 Representative: Jean-Pierre Torrès

³ French research organization; no governmental affiliation.

CHAD



(See reference map VII)

- G,C,R Direction des Mines et Pétrole
 B.P. 816
 N'Djamena
 Director: Eugène Tabe
- C,H Direction du Génie Rural
 B.P. 47
 N'Djamena
 Director: Abdéramane Abdoul
- H Office National de l'Hydraulique Pastorale
 B.P. 750
 N'Djamena
 Director: Tahar Sougoudi Sidimi

CHILE



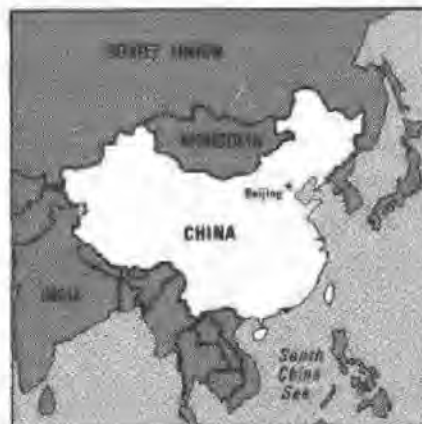
(See reference map IV)

- G Dirección de Geología
 Corporación Nacional del Cobre
 Huérfanos 1189, 8º Piso
 Santiago
 Director: Héctor Flores Williams

- G Centro de Investigaciones Minero-Metalúrgicas
Parque Institucional 6500, Lo Curro
Santiago
Director: Werner Schlein
- G Instituto de Investigación de Recursos Naturales
(IREN)
Corporación de Fomento de la Producción
Manuel Montt 1164
Santiago
Executive Director: Enrique Junemann Mardones
- G Departamento Nacional de Geología
Empresa Nacional del Petróleo
Ahumada 341, 8° Piso
Santiago
Chief, Eduardo González Pacheco
- G Servicio Nacional de Geología y Minería
(SERNAGEOMIN)
Teatinos 120, Piso 9
Santiago
National Director: María Teresa Cañas
Sub-Director of Geology: Carlos Ulriksen
Sub-Director of Mines: Juan Divin
- G Unidad de Minería
Corporación de Fomento de la Producción
Moneda 921, Of. 538
Santiago
Chief: Juan Montoya
- G Comisión Chilena de Energía Nuclear (CCEN)
Los Jesuitas 645
Casilla 188-D
Santiago
Director: Teniente General (R)
Herman Brady Roche
- H Empresa Nacional de Electricidad S.A.
Casilla 1392
Santiago
WMO/CHy Representative: Andrés Benítez
- H Instituto Hidrográfico de la Armada
Errazuriz 232
Casilla 324
Valparaíso
Captain Eduardo Barison Roberts
- C Servicio Aerofotogramétrico
Fuerza Aérea de Chile
Casilla 67
Correo Los Cerrillos
Santiago
Director: Comandante de Grupo del Aire
Oscar Boronig S.
- C Instituto Geográfico Militar
Nueva Santa Isabel 1640
Santiago
Director: Enrique López Silva

- R Ministerio de Minas
Teatinos 120
Santiago
Minister: Samuel Lira Ovalle

CHINA⁴



(See reference map VIII)

- G Academia Sinica
[Chinese Academy of Science]
Division of Earth Sciences
Vice President: Ye Duzheng
- The Academy consists of the following Institutes:
- G Desert Studies
Lanzhou
Director: Zhu Zhenda
- G Geochemistry
Guiyang
Director: Tu Guangzhi
- G Geography
Beijing
Director: Huang Bingwei
- G Geography
Changchun
Director: Huang Xichou
- G Geography
Chengdu
Director: Ding Xizhi
- G Geography
Xinjiang
Director: Yuc Zhen
- G Geology
Beijing
Director: Zhang Wenyou

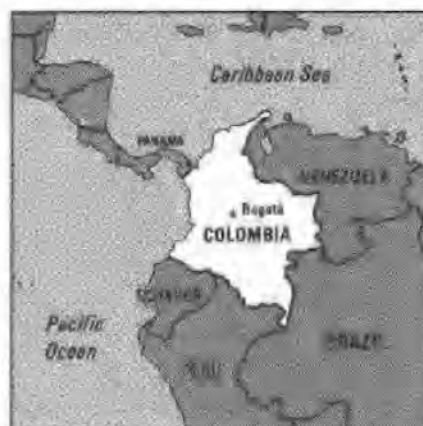
⁴See Taiwan, p. 96.

G	Geology Lanzhou Director: Huang Ruchang		
G	Geology and Geography Urumchi		
G	Geology and Paleontology Nanjing Director: Zhao Jinke		
G	Geophysics Beijing Director: Fu Chengyi		
G	Geotectonics Changsha Director: Chen Guoda		
G	Glaciology and Cryopedology Lanzhou Director: Shi Yafeng		
G	Oceanography Qingdao Director: Zeng Chengkui		
G	Oceanography (South Seas) Guangzhou Director: Qiu Bingjing		
G	Pedology Nanjing Director: Xiong Yi		
C	Remote Sensing Application Beijing Chen Shuping		
G	Rock and Soil Mechanics Wuhan		
G	Salt Lakes Xining Director: Liu Dagang		
C	Surveying Wuhan Director: Fang Jui		
H	Soil and Water Conservation Shaanxi Director: Zhu Xianmo		
G	Vertebrate Paleontology of Paleoanthropology Beijing Director: Zhou Minzhen		
G	Ministry of Geology and Mineral Resources (Formerly known as the State Bureau of Geology) Minister: Sun Daguang		
			The Ministry consists of the following units:
		G	Academy of Geological Sciences Beijing Director: Li Tingdong
		G	Composite Geology Research Team Shanghuxian Director: Ma Shuzhao
		G	Institute of Geology Beijing Director: Shen Qihan
		G	Institute of Geology of Mineral Deposits Beijing Director:.. Chien Yuchuen
		G	Institute of Geology of Plateau Areas Chengdu Director: Liu Zengqian
		G	Institute of Geologic Information Beijing Director: Feng Zhongguang
		G	Institute of Geomechanics Beijing Director: Sun Dianqing
		H	Institute of Hydrogeology and Engineering Geology Zhengding Director: Zhang Zoughu
		G	Institute of Karst Guilin Director: Yuan Daoxian
		G	Institute of Geology and Mineral Resources (Sedimentary Rocks) Chengdu Director: Liu Baojun
		G	Institute of Geology and Mineral Resources (Volcanic Rocks) Nanjing Director: Ye Zhizeng
		G	Institute of Geology and Mineral Resources Shenyang Director:.. Qin Nai
		G	Institute of Geology and Mineral Resources (Quaternary and Precambrian) Tianjin Director: Shen Baofeng
		G	Institute of Geology and Mineral Resources Xian Director: Li Xianxi

- G Institute of Geology and Mineral Resources
Yichang
Director: Tan Zhangfu
- G Institute of Rock and Mineral Analysis
Beijing
Director: Wang Weiyang
- G National Geological Library
Beijing
Director: Deng Geming
- G National Geological Museum
Beijing
Director: Liu Yongquan
- G Institute of Multipurpose Utilization of Mineral Resources
Ermei
Director: Zheng Youlang
- G State Seismological Bureau
Beijing
Director: An Qiyuan
- G Institute of Seismology
Wuhan
Director: Lee
- G Institute of Geophysics
Beijing
Director: Cheng Zongji
- G Institute of Geology
Beijing
Director: Ma Xingyuan
- G Institute of Engineering Mechanics
Harbin
Director: He Lungjiang
- G Ministry of Coal Industry
Beijing
Minister: Gao Yanqun
- G Institute of Coal Geology and Exploration
Xian
Director: Yuan Yaoting
- G National Bureau of Oceanography
Beijing
- G National Bureau of Surveying and Cartography
Beijing
- G Ministry of Petroleum Industry
Beijing
Minister: Tang Ke
- G Institute of Petroleum Exploration and Development
Beijing
Director: Shen Lisheng

- G Ministry of Nuclear Industry
Beijing
Minister: Jiang Xinxiong
- G Institute of Uranium Geology
Beijing
- H Ministry of Water Resources and Electric Power
Beijing
Minister: Qian Zhengying
- Bureau of Hydrology
Beijing
Director: Chen Jiaqi

COLOMBIA



(See reference map IV)

- G,H,R Instituto Nacional de Investigaciones Geológico Mineras (INGEOMINAS)
Diagonal 53 # 34-53
Apartado Aéreo 4865
Bogotá, D. E.
Director: Dr. Alfonso Lopez-Reina
- G,H Instituto Colombiano de Hidrología, Meteorología y Adecuación de Tierras (HIMAT)
Carrera 10 # 20-19, Pisos 4 al 12
Bogotá, D.E.
Director: Dr. Fabio Bermúdez-Gómez,
Oficina 1201
- G Instituto Geofísico de Los Andes
Carrera 7 # 40-76, Universidad Javeriana
Apartado Aéreo 56710
Bogotá, D.E.
Director: Reverendo Padre Jose Rafael-Goberna
- C Instituto Geográfico "Agustín Codazzi"
Carrera 30 # 48-51
Apartado Aéreo 6721
Bogotá, D.E.
Director: Dr. Alvaro González-Fletcher

C Dirección Marítima y Portuaria—Armada Nacional
Ministerio de Defensa Nacional
CAN
Bogotá, D.E.
Apartado Aéreo 20294
Director: Contra Almirante Juan Pablo Reirán-Hernández

C Centro Interamericano de Fotointerpretación
Carrera 30 # 47A-57
Bogotá, D.E.
Director: Dr. Hernán Rivera-Hermida

R Instituto de Asuntos Nucleares
IAN
Avenida Eldorado, Carrera 50
Apartado Aéreo 8595
Bogotá, D. E.
Director: Dr. Ernesto Villarreal

CONGO

(No recent information)



(See reference map VII)

G Office de la Recherche Scientifique et Technique Outre-mer (ORSTOM)⁵
Centre Oceanographique de Point-Noire
B.P. 1286
Point Noire
Director: Fred Gueredrat

G Service des Mines et de la Géologie
B.P. 2124
Brazzaville

H Service Hydrologique de l'ORSTOM⁵
B.P. 181
Brazzaville

C Institut Géographique⁵
B.P. 125
Brazzaville

⁵French research organization; no governmental affiliation.

C Cadastre du Congo
B.P. 544
Brazzaville

C Service Topographique et du Cadastre
Agence de Brazzaville
B.P. 125 Route du Djove
Brazzaville
Director: Antoine Ondema

COOK ISLANDS



(See reference map X)

G Prime Minister's Department
P.O. Box 66
Raratonga
Scientific Research Officer: S. Kingan

G,C Department of Survey and Physical Planning
Secretary of Survey and Physical Planning
Raratonga
Secretary: G. Cowan

COSTA RICA



(See reference map III)

G Departamento de Geología
Instituto Costarricense de Electricidad (ICE)
Apartado 10032, 1000 San José
Chief: Jorge E. Umaña

G Departamento de Desarrollo Geológico y Recursos
Minerales
Corporación Costarricense de Desarrollo
(CODESA)
Apartado 10254, 1000 San José
Director: Dr. Alfonso Monge

G Consejo Nacional de Investigaciones Científicas
y Tecnológicas (CONICIT)
Apartado 10318, 1000 San José
President: Rodrigo Zeledón
Executive Secretary: José Martín Solozano

C,G Instituto Geográfico Nacional
Apartado 2272 1000 San José
Director: Fernando M. Rudin Rodríguez

H Departamento de Estudios Básicos
Instituto Costarricense de Electricidad (ICE)
Apartado 10032 1000 San José
Chief: Enrique Evans

H Servicio Nacional de Aguas Subterráneas (SENAS)
Apartado 5262 1000 San José
Executive Director: Alvaro Suárez

R Dirección de Programación y Control de
Exploración Petróleo
Refinadora Costarricense de Petróleo S.A.
(RECOPE)
Apartado 4351 1000 San José
Director: Umberto Porta
Manager: Pedro Afonso

R,G Dirección de Minas, Geología, y Hidrocarburos
Ministry of Energy, Mines, and Industry
Apartado 4752 1000 San José
Director: Jorge Vargas

CUBA



(See reference map III)

- G Instituto de Geología
Academia de Ciencias de Cuba
Ave. Van-Troi no. 17203
Rancho Boyeros—Apartado Postal 10
La Habana
Director: Jesús F. de Albear Franquiz
- G Instituto Nacional de Recursos Minerales (ICRM)
O'Reilly y Aguacate
La Habana
Director: Salvador Salas
- G Instituto Cubano de Geodesia y Cartografía
Loma y 39
Nuevo Vedado
La Habana
Director: Emilio Lluís Rojoo
- G Instituto de Geofísica y Astronomía
Calle 212, No. 2906
Repatrio Cubanacán
La Habana 16
Director: Rosendo Álvarez Morales
- G Instituto de Geología y Paleontología
Calzada No. 851
La Habana 4
Director: Lenia Montero Zamora
- G Instituto de Oceanología
Avenida Ira No. 18406
Cubanacán
La Habana 16
Director: Rodolfo Claso Madruga
- H Instituto Cubano de Hidrografía
4 #302
Miramar
Director: Ángel Joel Chaveco Hernández
Calle 11, No. 514

H Instituto de Geografía
Calle 11, No. 514
La Habana 4
Director: Glaston Oliva

CYPRUS



(See reference map VI)

- G Geological Survey Department
Ministry of Agriculture and Natural Resources
Nicosia
Director: George Constantinou
- C Department of Lands and Surveys
Ministry of the Interior
Nicosia
Senior Lands and Surveys Officer:
Rois G. Nicolaides
- H Water Development Department
Ministry of Agriculture and Natural Resources
Nicosia
Director: Constantinos Lytras
- R Department of Mines
Ministry of Commerce and Industry
Nicosia
Senior Mines Officer: Glafkos C. Kronides

CZECHOSLOVAKIA



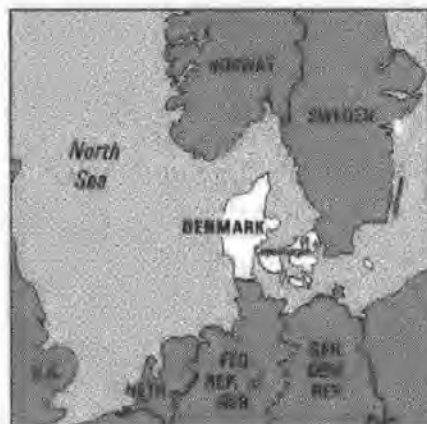
(See reference map V)

- G Geografický ústav ČSAV [Geographical Institute of
Czechoslovak Academy of Sciences]
Mendelovo nám. 1
662 82 Brno
Director: Ing. Vladimír Vahala, Dr. Sc.
- G Institute of Geology and Geotechnics of the
Czechoslovak Academy of Sciences
V Holešovičkách 41-
182 09 Praha 8 - Libeň
Director: Ing. Dr. Gustav Sebor, Dr. Sc.
- G Geodetický ústav (Geodetic Institute)
Kostelní 42
170 30 Praha 7 - Holešovice
Director: Dr. Dimitrij Gebauer
- G Vyzkumný ústav geodetický, topografický a
kartografický
250 66 Zdíby 98
Praha - Vychoď
Director: Ing. Jaroslav
Kouba
- G Ústřední ústav geologický
Malostranské náměstí 19
118 21 Praha 1 - Malá Strana
Director: Dr. Jaroslav Vacek
- H Český Hydrometeorologický ústav
[Surface and Ground Water Resources]-Czech
Republic
Holečkova 8
151 29 Praha 5 - Smíchov
Director: Ing. Václav Richter
- H Slovenský Hydrometeorologický ústav
[Surface and Ground Water Resources]-Slovak
Republic
Jeseniová 17
885 39 Bratislava - Koliba
Director: Dr. Ferdinand Samaj, Dr. Ved

C Geodetická a Kartografická Sprava
[Geodetic and Cartographic Administration]
Arbesovo nam. 4
Praha 5 - Smichov
Director: Ing. Jaromir Karnold

C Vojensky zemepisny ustav
[Military Geographical Institute]
Rooseveltova 23
150 01 Praha 6

DENMARK



(See reference map V)

G,R Danish Energy Agency
Landemærket 11
DK-1119 Copenhagen K
Director: Hans von Bulow

G Geological Survey of Denmark
Thoravej 31
DK-2400 Copenhagen NV
Director: Ole Berthelsen

G,C,H Ministry for Greenland
Oils and Minerals Department
Hausegade 3
DK-1128 Copenhagen K
Chief of Department: Gert Vigh

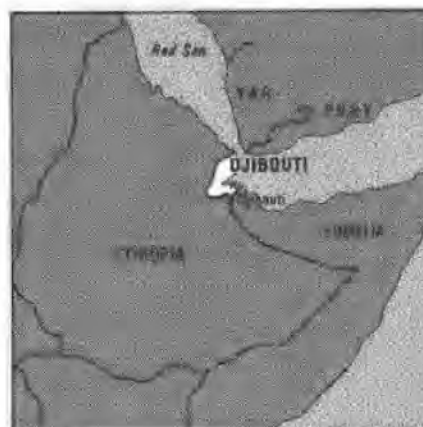
H Hydrological Survey
Nytorv 13
4200 Slagelse
WMO/CHY Representative: Jørgen Lundager
Jensen

C Geodetic Institute
Rigsdagsgaarden 7
DK-1218 Copenhagen K
Director: Flemming Wiinblad

R Ministry of Industry
Sloholmegade 12
DK-1216 Copenhagen K
Chief, Office of Energy Legislation and
Concessions: Hagen Jørgensen

DJIBOUTI, REPUBLIC OF

(No recent information)



(See reference map VII)

G Ministère des Travaux Publics
P.B. 24
Djibouti
Minister: Omar Kamil Warsama

H Water Authority, Genie Rural
Ministry of Agriculture
Djibouti
Hydrologist: Mohamed Waberi Askar

DOMINICA

(No recent information)



(See reference map III)

G,C,H,R Department of Trade and Industry
Roseau
Permanent Secretary: Arlington Riviere

DOMINICAN REPUBLIC

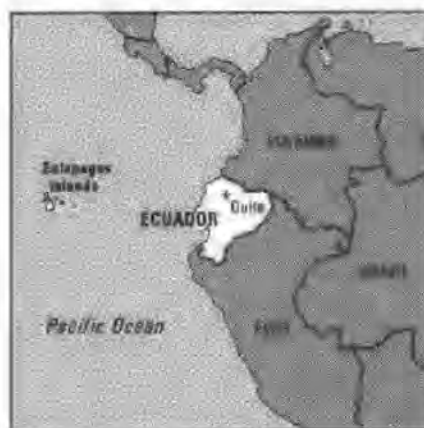


(See reference map III)

- G Dirección General de Minería
Secretaría de Estado de Industria y Comercio,
Ave. Mexico, 11-A, El Huacal
Santo Domingo
Director General: Ing. Miguel A. Peña
- G Departamento de Ciencias Geográficas
Facultad de Ciencias
Universidad Autónoma de Santo Domingo
Santo Domingo
- H Instituto Nacional de Recursos Hidráulicos
Centro de los Heroes
Santo Domingo
Director: Ing. Romulo Vallejo

C Instituto Geográfico Universitario
Facultad de Ciencias
Universidad Autónoma de Santo Domingo
Santo Domingo
Director: Pablo Smeter

ECUADOR



(See reference map IV)

- G Dirección General de Geología y Minas
Ministerio de Recursos Naturales y Energéticos
Carrion #1016 y Páez
Quito
Director-General: Ing. Pedro Freile Paz y Miño
- G Centro de Levantamientos Integrados de Recursos
Naturales por Sensores Remotos (CLIRSEN)
[Center of Integrated Surveys of Natural
Resources by Remote Sensing]
Edificio Instituto Geográfico Militar
P.O. Box 8216
Quito
Director Ejecutivo: Ing. Alberto Segovia
- G Instituto Oceanográfico de la Armada (INOCAR)
Casilla 5940
Guayaquil
Director: Fernando Alfaro Echeverria
- G Instituto Geofísico
Escuela Politécnica Nacional
Apartado 2759
Quito
Director Técnico Encargado: Dr. Minard C. Hall
- C Instituto Geográfico Militar (IGM)
Apartado 2435
Quito
Director: Crnel. de E. M. Ing. Germán Ruiz
Zurita

- H Departamento de Hidrología
Instituto Nacional de Meteorología e
Hidrología (INAMHI)
Calle Daniel Hidalgo 132 y 10 de Agosto
Quito
Director: Ing. Galo Cisneros Freire
- R Direccion General de Minas e Hidrocarburos
Ministerio de Recursos Naturales y Energéticos
Santa Prisca #215
Quito
Director General: Ing. Rodrigo Cerón Chamorro

EGYPT



(See reference maps VI and VII)

- G Helwan Observatory
c/o Academy of Scientific Research and
Technology
101 Kasr El Aini Street
Cairo
Director: Mohamed Fahim
- G Geological Survey and Mining Authority
4 Saleh Salem Road
Abbasia
Cairo
Acting Chairman: Mahmoud Fawzy El Ramly
- G,H Academy of Scientific Research and Technology
101 Kasr El Aini Street
Cairo
President: Dr. Ibrahim Badran
- C Aerial Survey of Egypt
308 El-Haram Street
Giza, Cairo
- C Survey of Egypt
Sharia El Misaha
Giza
Cairo
Chairman: Dr. Abdel Fattah Habib

- C,G Egyptian Remote Sensing Center
101 Kasr El Aini Street
Cairo
Chairman: Mohamed Abdel Hady
- H Hydrological Research Station
Kanater-al-Khaiyria Barrages
Cairo
Director: A. A. El-Darwish
- R Egyptian General Petroleum Company
Tayaran Street
Nasr City
Cairo
Chairman: Abdel Hady Kandil
- G,R Nuclear Materials Authority
P.O. Box 530
Maadi
Cairo
Chairman: Dr. Ibrahim Shazli al-Shazli

EL SALVADOR

(No recent information)



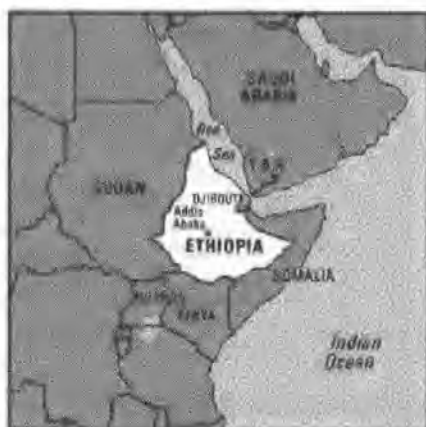
(See reference map III)

- CI Centro de Investigaciones Geotécnicas
Ministerio de Obras Públicas
Avenida Peralta, final, costado Oriente
Talleres El Coro
San Salvador
Director: Julio Bran Valencia
- R Comisión Nacional del Petróleo
Ministerio de Economía
3a. Calle Poniente 1225
San Salvador
- C Instituto Geográfico Nacional
"Ingeniero Pablo Arnoldo Guzman"
Ministerio de Obras Públicas
Avenida Juan Bertis No. 79
San Salvador
Director: Jose Alberto Gonzalez Garcia

- B,C Ministerio de Obras Publicas
Palacio Nacional
San Salvador
Ministro: Leon Rivas Duran
- H,C Servicio Hidrológico
Dirección General de Riego y Drenaje
Ministerio de Agricultura y Ganadería
Nueva San Salvador
Director General: José Fuente Alas
- H Servicio Hidrológico
Dirección General de Recursos Naturales
Renovables
Canton El Matasano
Soyapango, El Salvador, C.A.
Director General: Gonzalo Ernesto
Martínez Menéndez
WMO/CHy Representative: Hernan Romero
Chavarria
- H Servicio Meteorológico Nacional
Ministerio de Agricultura y Ganadería
Nueva San Salvador
Jefe: Gelio Tomás Guzman Lopez
- H,C Ministerio de Agricultura y Ganadería
Boulevard Los Héroes y 21 Calle Poniente
San Salvador
Minister: José Rutilio Aquilera

- C,G,H,R Natural Resources Division
UNECA
Africa Hall
P.O. Box 3001
Addis Ababa
Chief: P. N. Mwanza
- C Cartography Unit
UNECA
Africa Hall
P.O. Box 3001
Addis Ababa
Chief: Funso Olujohungbe
- C Ethiopian Mapping Agency
P.O. Box 597
Addis Ababa
General Manager: Ato Asfaw Fanta
- H National Water Resources Commission
P.O. Box 1045
Addis Ababa
Commissioner: Ato Alem Alazar
- R Mineral Resources Unit
UNECA
Africa Hall
P.O. Box 3001
Addis Ababa
Officer-in-Charge: F. S. Moshi

ETHIOPIA



(See reference map VII)

- G Ethiopian Institute of Geological Survey (EIGS)
Ministry of Mines, and Energy
P.O. Box 486
Addis Ababa
General Manager: Ato Getahun Demissie
- G,R,H Ministry of Mines, and Energy
P.O. Box 486
Addis Ababa
Minister: Tekeze-Shewa Aytenfisu

FIJI



(See reference map X)

- G,R,C Mineral Resources Division
Ministry of Energy and Mineral Resources
Private Mail Bag, G.P.O.
Suva
Acting Director for Mineral Development:
A. Rahiman

- C Department of Lands and Survey
Ministry of Lands, Local Government and Housing
P.O. Box 2222, Government Building
Suva
Director: Brij Lal
- H Hydraulics Section
Public Works Department
Ministry of Communications and Works
Ganilau House
Suva
Director: R.H. Sheratt

FINLAND



(See reference map V)

- G Geologinen Tutkimuskeskus
[Geological Survey of Finland]
Kivimiehentie 1
02150 Espoo 15
Director: Prof. L. K. Kauranne
- G Geotekniikan Laboratorio
[Geotechnical Laboratory under the State
Technical Research Center]
Lämpömiehenkuja 2 B
02150 Espoo 15
Director: Prof. Markku Tamminen
- C Maanmittaushallitus
[National Board of Survey]
PL 84
00521 Helsinki 52
General Director: Lauri Kantee
- C Maanmittaushallituksen Karttapaino
[National Board of Survey, Publication
Division]
PL 85
00521 Helsinki 52
Office Chief: Osmo Niemelä

- C Geodeettinen Laitos
[Geodetic Institute]
Ilmalankatu 1 A
00240 Helsinki 24
Director: Prof. Juhani Kakkuri
- H Vesitutkimustoimisto
[Water Research Office]
PL 250
0010 Helsinki 10
Office Chief: Reino Laaksonen
- H Hydrologian Toimisto
[Hydrological Office]
PL 436
00101 Helsinki 10
Office Chief: Risto Lemmelä

FRANCE



(See reference map V)

- G Centre National de la Recherche Scientifique
15, quai Anatole-France
75700 Paris
President: Claude Frejacques
Directeur-General: Pierre Papon
- G,H,R Bureau de Recherches Géologiques et Minières
(BRGM)
B.P. 6009
45060 Orléans Cedex
Director: Hubert de la Roche
- G Institut Français de Pétrole
4, avenue de Bois-Preau
92502 Reuil Malmaison
Directeur-General: Jean-Claude Balaceanu
- G Office de la Recherche Scientifique et Technique
Outre-Mer (ORSTOM)
[Office of Scientific and Technical Research
Overseas]
24, rue Bayard
75008 Paris
Directeur General: Alain Ruellan

G Commissariat à l'Etude et à la Prevention des Risques Naturels Majeurs
25, avenue Charles-Floquet
75700 Paris
Commissaire: Haroun Tazieff

H Electricité de France
134, boulevard Haussman
75336 Paris Cedex 8

C Laboratoire d'Information et de Documentation en Géographie
191, rue St. Jacques
75114 Paris
Director: Michel Drain

C Centre d'Etude et de Réalisations Cartographiques et Géographiques
191, rue St. Jacques
75114 Paris
Director: Fernand Joly

C Institut Géographique National
136 bis, rue de Grenelle
75700 Paris
Director: Jean Winghart

FRENCH GUIANA

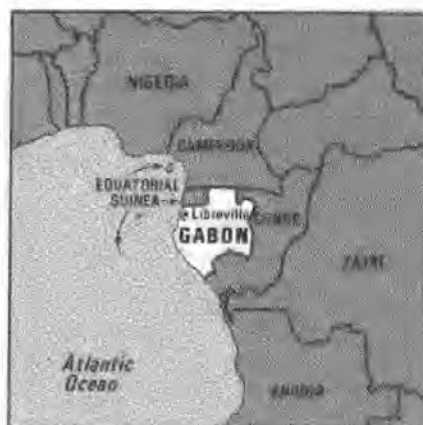
(No recent information)



(See reference map IV)

G Bureau des Recherches Géologiques et Minières (BRGM)
B.P. 42
Cayenne

GABON



(See reference map VII)

G,C Bureau de Recherches Géologiques et Minières (BRGM)
B.P. 175
Libreville
Director: Mr. Gazel

R Direction des Mines et de la Geologie
Ministere des Mines, de l'Energie et des Ressources Hydrauliques
B.P. 576
Libreville
Directeur de la Geologie: Patrice Diouly Osso
Directeur des Mines: Paulin Ampamba Gouerangu
Ministre: Guy Mouvagha Tchioba

GAMBIA, THE



(See reference map VII)

C Survey Department
Half Die, Banjul
Director of Surveys: Mactarr O. Jobe

- H Department of Hydrometeorological Services
7, Marina Parade
Banjul
Director: Edi N'jie
- H Ministry of Water Resources and the Environment
6, Marina Parade
Banjul
Permanent Secretary: O. N. R. Othman
- H L'Organization pour la Mise en Valeur du Fleuve
Gambie (OMVG)
[Organization for the Development of the
Gambia River Basin]
Kaolack, Senegal
Chairman: Malick John
- H Department of Hydrometeorological Services
7 Marina Parade
Banjul
Director: Edi N'jie

- G Akademie der Wissenschaften
Zentralinstitut für die Physik der Erde
1500 Potsdam Telegrafenberg
Director: Prof. Dr. Heinz Kautzleben
- C Institut für Bodenkunde
Abt. Standortkartierung
Clara-Zetkin-Strasse 105
1080 Berlin
- C Deutsche Bucherei
Abteilung Beschaffung
Dienststelle für Schriften des Auslandes
Deutscher Platz 1
7010 Leipzig
- H Institut für Wasserwirtschaft
Schnellerstrasse 140
1190 Berlin
Director: Dr. Peter Loese
- H Kammer der Technik
Fachverband Wasser
Clara-Zetkin-Strasse 115/117
1080 Berlin

GERMAN DEMOCRATIC REPUBLIC



(See reference map V)

- G Zentrale Vorratskommission für Mineralogische
Rohstoffe
Invalidenstrasse 44
1040 Berlin
- G Zentrales Geologisches Institut
Invalidenstrasse 44
1040 Berlin
Director: Dr. Karlheinz Bendsko
- G Gesellschaft für Geologische Wissenschaften der
DDR
Invalidenstrasse 43
1040 Berlin

GERMANY, FEDERAL REPUBLIC OF

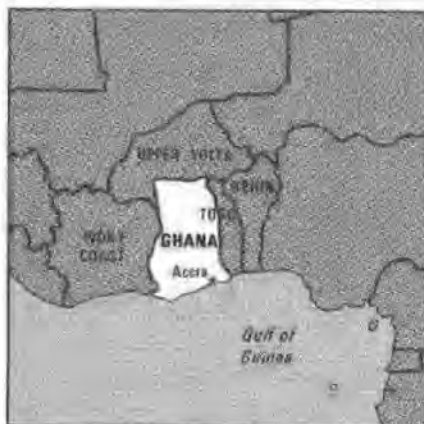


(See reference map V)

- G,C,H Bundesminister der Verteidigung
Streitkräfteamt
Militärisches Geowesen
Theaterplatz 10-18
5300 Bonn 2
President: Jürgen H. Denker
- G,R,C Bundesanstalt für Geowissenschaften und
Rohstoffe (BGR) (Geobund)
Alfred-Bentz-Haus
Postfach 510153
Stilleweg 2
3000 Hannover 51
President: Friedrich N. Bender

- H,R,C,G Deutsches Hydrographisches Institut (DHI)
Bernhard-Nocht-Strasse 78
2000 Hamburg 4
President: Gerhard Zickwolff
- H Bundesanstalt für Gewässerkunde
Kaiserin-Augusta-Andagen 15-17
5400 Koblenz
President: Herbert Knoepp
- C Arbeitsgemeinschaft der Vermessungsverwaltungen
der Länder der Bundesrepublik Deutschland
(AdV)
Warmbuechenkamp 2
3000 Hannover 1
Vorsitzer: Dr. Ing. Harald Lucht
Geschäftsführer: Ministerialrat Wolf-Erich
Von Daack
- C Institut für Angewandte Geodäsie
Richard-Strauss-Allee 11
6000 Frankfurt am Main 70
Director: Walter Satzinger

GHANA



(See reference map VII)

- G Industrial Research Institute
Council for Scientific and Industrial Research
(CSIR)
P.O. Box M-32
Accra
Acting Director: Alexandria Amoako-Mensah
- G Geological Survey of Ghana
P.O. Box M-80
Accra
Director: G. O. Kesse
- H Water Resources Research Unit
Council for Scientific and Industrial Research
P.O. Box M-32
Accra
Acting Director: Nii Bôl Ayibotele

- H Hydrological Branch
Public Works Department
P.O. Box 136
Accra
Chief Hydrological Engineer: S. A. Acheampong
- C Ghana Geographical Association
University of Ghana
Legon
President: Prof. George Benneh
- C Survey Division
P.O. Box 191
Cantonments
Accra
Acting Chief Survey Officer: I. Abu
- C Buildings and Roads Research Institute
Council of Scientific and Industrial Research
(CSIR)
P.O. Box 40
University Post Office
Kumasi
Acting Director: M. D. Gidigasu
- R Ministry of Lands and Natural Resources
P. O. Box M-212
Accra
Principal Secretary: W. K. Alomatu
- R Ministry of Fuel and Power
P.O. Box M-212
Accra
Principal Secretary: J. K. Owusu

GREECE

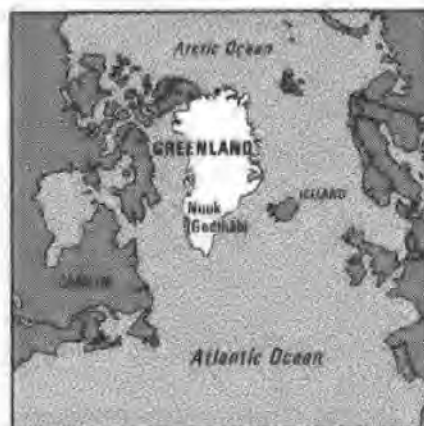


(See reference map V)

- G Institute of Geological and Mining Research
(IGME)
70 Mesogion Street
GR-115 27 Athens

- G Public Petroleum Corporation (DEP)
54 Acadimias Street
GR-106 79 Athens
- H National Meteorological Service (EMY)
Climate, Agriculture and Hydrology Division
Athens Airport-East
Hellenikon Postal Service
GR-166 03 Athens
- H Geological and Hydrological Directorate
Ministry of Agriculture
46 Halkokondyli Street
GR-104 38 Athens
- H Hydraulic Works Engineering Division (BM3)
Ministry of Public Works
15 Panagi Tsaldari Street
Kalithea
GR-176 76 Athens
- H Hydraulic Works Construction and Maintenance
Service (BY)
Ministry of Public Works
15 Panagi Tsaldari Street
Kalithea
GR-176 76 Athens
- C Hellenic Army Geographic Service
3 Evelpidon Street
GR-113 62 Athens
- R 4th Directorate of Mines
Ministry of Energy and Natural Resources
80 Michalakopoulou Street
GR-115 28 Athens
- R National Petroleum Products Service
Ministry of Energy and Natural Resources
80 Michalakopoulou Street
GR-115 28 Athens

GREENLAND



(See reference map II)

- G Grønlands Geologiske Undersøgelser
Ostervoldgade 10, Tr. KL
DK-1350 Copenhagen K
Denmark
Director: Dr. Martin Ghisler

GUADELOUPE

(No recent information)



(See reference map III)

- G Arrondissement Minéralogique de la Guyane
B.P. 448
Pointe-a-Pitre
- H Office de la Recherche Scientifique et Technique
Outre-Mer (ORSTOM)⁶
B.P. 504
97165 Pointe-a-Pitre
Cedex
F 1960

⁶French research organization; no governmental affiliation.

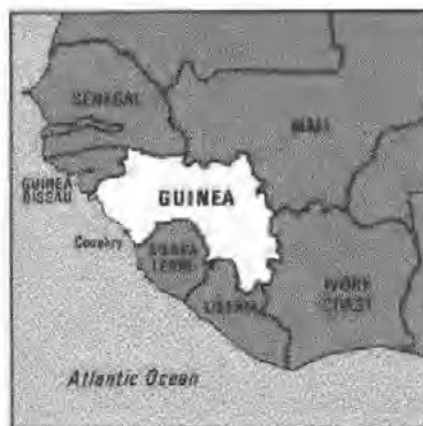
GUATEMALA



(See reference map III)

- G,H Instituto de Sismología, Vulcanología,
Meteorología, e Hidrología (INSIVUMEH)
7 Avenida 14-57, Zona 13
Guatemala, C.A.
Director: Ing. Estuardo Velasquez Vásquez
- G División de Geología
Instituto Geográfico Militar
Avenida Las Américas 5-76, Zona 13
Guatemala, C.A.
Director: Ing. Oscar Salazar Contreras
- G,R Ministerio de Energía y Minería
Diagonal 17, 29-78, Zona 11
Guatemala, C.A.
Secretario General: Ing. Alejandro Contreras
Bonilla
Minister: Ing. Alejandro Sigfrido Contreras
- C Instituto Geográfico Militar
Avenida de las Américas 5-76, Zona 13
Guatemala, C.A.
Director: Coronel de Ingenieros Ing. Lionel
Anibal Rivera Morataya

GUINEA



(See reference map VII)

- G,C,R Ministry of Mines and Geology
B.P. 295
Conakry
Minister: Captain Jean Traore
- H Ministry of Agriculture
B.P. 576
Conakry
Minister: Chief of Battalion Alseny Fofana
Director General of Waters and Forests:
Khalidou Diallo

GUINEA-BISSAU



(See reference map VII)

- C,G,H,R Ministry of Natural Resources
Caixa Postal 399
Bissau
Minister: Joseph Turpin
Director General: Mario Ferreira Silva

R
Petrominas
Caixa Postal 387
Bissau
Director: Pio Correia

GUYANA



(See reference map IV)

- G
Geological Surveys and Mines Department
P.O. Box 1028
Brickdam, Georgetown
Commissioner of Geology and Mines:
Grantley Walrond
- H
Hydrometeorological Service
Ministry of Works and Transport
P.O. Box 26
Georgetown
Chief: K. E. D. Potter
- C
Lands and Surveys Department
Ministry of Agriculture
Upper Hadfield Street
Georgetown
Commissioner of Lands and Surveys: T. A. Earle
- R
Petroleum Unit
Ministry of Energy and Mines
Brickdam and Boyle Place
Georgetown
Chief: B. Sucre

HAITI
(No recent information)

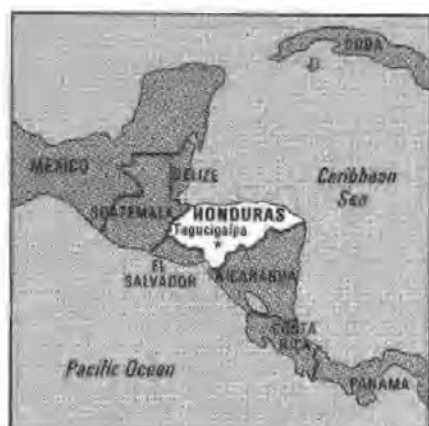


(See reference map III)

- G,R
Ministry of Mines and Energy Resources
Village Willy Lamothe, Delmas 9
P.O. Box 2174
Port-au-Prince
Secretary of State: Claude Mompont
Director General: Michel Simon
- H
Service Météorologique et Hydrologique
Département de l'Agriculture, des Ressources
Naturelles et du Développement Rural
Damier, Port-au-Prince
Director: Alexandre Gontier
- C
Service de Géodésie et de Cartographie
Boulevard Harry Truman
Cité de l'Exposition
Port-au-Prince
Director: Raymond B. Oriol

HONDURAS

(No recent information)



(See reference map III)

- G Exploracion Geotérmica
 Empresa Nacional de Energía Eléctrica (ENEE)
 Apartado 99
 Tegucigalpa, D.C.
 Chief: Werner Hugo Falck C.
- G,C,R Dirección General de Minas e Hidrocarburos
 Ministerio de Recursos Naturales
 Boulevard Centro América
 Tegucigalpa, D.C.
 Director-General: Edgardo Zuñiga R.
- H Servicio Autónomo Nacional de Acueductor y
 Alcantarillados (SANAA)
 Apartado Postal 437
 Tegucigalpa, D.C.
 Director-General: Rubén Flores Guillén
- H Servicios Hidrológicos y Climatológicos
 Ministerio de Recursos Naturales
 Apartado 1839
 Tegucigalpa, D.C.
 Chief: M. Lardizábal Becerra
- C Instituto Geográfico Nacional (IGN)
 Apartado Postal 758
 Barrio La Balsa
 Comayagua D.C.
 Director-General: José Edmundo Alcerro P.
- C Oficina Nacional de Programa Catastral
 Edificio Didemo, 4 Piso
 Tegucigalpa, D.C.
 Director: Julio Cesar Zepeda
- R Comisión Nacional de Energía
 Ministerio de Economía y Comercio
 Altos Edif. Banco de Londres y Montreal
 Tegucigalpa, D.C.
 Director: J. Dalmiro Caballero

HONG KONG



(See reference map VIII)

- G Mines Division
 Canton Road Government Offices
 Canton Road
 Kowloon
 Superintendent of Mines: Borhylen Wang
- G Department of Geography and Geology
 University of Hong Kong
- H Royal Observatory
 134A, Nathan Road
 Kowloon

HUNGARY



(See reference map V)

- G Központi Földtani Hivatal
 [Central Office of Geology]
 H-1011 Budapest, I.
 Iskola u. 19-27
 Chairman: Dr. József Fülöp

- G,H Magyar Állami Földtani Intézet
[Hungarian Geological Institute]
H-1143 Budapest, XIV.
Népstádión út 14
Director: Dr. Géza Hárnor
- G Országos Kőolajés Gázipari Trószta
Geofizikai Kutatási Vállalat
[Geophysical Exploration Co.]
H-1068 Budapest, VI.
Gorkij Fásor 42
Director: Karoly Molnar
- G Országos Kőolajés Gázipari Trószta
Magyar Szenhidrogenipari Kutató-Fejlesztő
Intézet
[Hungarian Hydrocarbon Institute]
H-2443 Szazhalombatta
P.O. Box 32
Director: Dr. Sandor Doleschall
- G Magyar Állami Eötvös Loránd Geofizikai Intézet
[Hungarian Geophysical Institute L. Eotvos]
H-1145 Budapest
Columbus u. 17-23
Director: Dr. Pál Müller
- G Magyar Tudományos Akadémia
[Hungarian Academy of Sciences]
Geokémiai Kutatólaboratórium
[Geochemical Research Laboratory]
H-1112 Budapest, XI.
Budaorsi ut 45
Director: Dr. György Pántó
- G,C Magyar Tudományos Akadémia
[Hungarian Academy of Science]
Geodéziai és Geofizikai Kutató Intézet
[Research Institute for Geodesy and
Geophysics]
H-9400 Sopron
Múzeum u. 6
Director: Dr. József Somogyi
- G Országos Kőolajés Gázipari Trószta
[National Crude Oil and Natural Gas Trust]
H-1117 Budapest, XI.
Schonherz Z. u. 18
Director General: Dr. Istvan Zsengeller
- H Magyar Állami Vízügyi Hivatal
[National Water Authority]
P.O. Box 351
H-1394 Budapest
- H Vizgazdálkodási Tudományos Kutató Intézet
(VITUKI)
[Research Institute for Water Resources
Development]
H-1095 Budapest, IX.
Kvassay Jenő u. 1
H-1095
Director: Dr. Karoly Stelczer

- H Vizgazdálkodási Intézet
[Institute for Water Management]
H-1054 Budapest, V.
Alkotmány u. 29
Director: Dr. Rudolf Muts
- C MEM Országos Földügyi és Terkepezési Hivatal
[National Cadaster and Cartography Bureau]
H-1055 Budapest, V.
Kossuth Lajos tér 11

ICELAND



(See reference map V)

- G National Energy Authority of Iceland
Grensásvegur 9
108 Reykjavik
Director-General: Jakob Björnsson
- G Geothermal Division
National Energy Authority
Grensásvegur 9
108 Reykjavik
Director: Dr. Gudmundur Pálmasón
- G Nordic Volcanological Institute
University of Iceland
Geoscience Building
Sudurgata
101 Reykjavik
Director: Dr. Gudmundur E. Sigvaldason
- G Division of Geology and Geography
Museum of Natural History
Laugavegi 105 and Hverfisgöta 116
P.O. Box 5320
105 Reykjavik,
Director: Dr. Sveinn P. Jakobsson
- G Marine Research Institute
Skulagötu 4
101 Reykjavik,
Director: Jón Jónsson

H Division of Hydropower
National Energy Authority
Grensásvegur 9
108 Reykjavík
Director: Dr. Haukur Tómasson

C Iceland Geodetic Survey
Laugavegi 178
105 Reykjavík
Director: Bragi Gudmundsson

G University of Science Institute
University of Iceland
Dunhagi 3
107 Reykjavík
Director: Dr. Sveinbjörn Björnsson

INDIA



(See reference map VIII)

G Central Fuel Research Institute
Council of Scientific and Industrial Research
P.O. FRI., District Dhanbad 828108
Bihar
Director: B. K. Mazumder

G Central Mining Research Station
Barwa Road
Dhanbad-826001
Director: S. Bagchi B. Singh

G National Institute of Oceanography
P.O. Dona Paula
Goa-Pin 403004
Director: V. V. R. Varadachari

G National Geophysical Research Institute
Uppal Road
Hyderabad 500007
Director: Dr. Vinod Gaur

G Geological Survey of India
27 Jawaharlal Nehru Road
Calcutta 700016
Director: S. K. Mukerjee

G Oil and Natural Gas Commission
Institute of Petroleum Exploration
Tel Bhavan
Dehra Dun 248001
Chairman: Col. S. P. Wahi

G Atomic Minerals Division
Department of Atomic Energy
Begumpet
Hyderabad 500016
Director: G. R. Udas

G.C.H National Remote Sensing Agency
Department of Science and Technology
No. 4 Sardar Patel Road
Secunderabad 500003
Andhra Pradesh
Director: Prof. B. L. Deekshatulu

C Survey of India
Surveyor General Office
P.O. Box 37
Dehra Dun 248001
Surveyor General of India: K. L. Khosla

C Geodetic and Geophysical Surveys
Survey of India
Dehra Dun 248001
Director: M. G. Arur

C Indian Photo-Interpretation Institute (NRSA)
4, Kalidas Road
P.B. No. 235
Dehra Dun, Uttar Pradesh
India
Dean: Col. P. Misra (Retd.)

H Central Ground Water Board
Ministry of Agriculture and Irrigation
Jam Nagar House
New Delhi 110001
Director: B. P. C. Sinha

H Central Water Commission
Bikaner House, Shahjahan Road
New Delhi 110011
Chairman: M. G. Padhye

H Central Board of Irrigation and Power
Kasturba Gandhi Marg
New Delhi 110001
Secretary: C. V. J. Varma

H India Meteorological Department
Lodi Road
New Delhi 110003
Director General: P. K. Das

R Ministry of Petroleum, Chemicals and Fertilizers
Shastri Bhavan
Dr. Rajendra Prasad Road
New Delhi 110001
Secretary: A. S. Gill

R Natural Resources
 Department of Science and Technology
 Earth Sciences Division
 Technology Bhawan off Mehrauli Road
 New Delhi 110016
 Advisor: M. N. Qureshy

INDONESIA



(See reference map IX)

G Badan Meteorologi dan Geofisika
 [Meteorological and Geophysical Institute]
 Ministry of Communication
 Jalan Arif Rachman Hakim 3, Jakarta Pusat
 Jakarta
 Director: C. Sutrisno

G,C,H Direktorat Sumber Daya Mineral
 [Directorate of Mineral Resources]
 Jalan Diponegoro 57
 Bandung
 Director: Salman Padmanagara

G,C,H,R Departemen Pertambangan Dan Energi
 [Ministry of Mines and Energy]
 Jalan Merdeka Selatan 18, Jakarta Pusat
 Jakarta
 Minister: Prof. Dr. Subroto, H.E.

G,R Direktorat Jenderal Pertambangan Umum
 [Directorate General of Mining]
 Jalan Jenderal Gatot Subroto Kav. 49, Jakarta
 Pusat
 Jakarta
 Director General of Mines: Prof. Dr. John A.
 Katili

G,R Direktorat Jenderal Minyak dan Gas Bumi
 (MIGAS) [Directorate General of Oil and Gas]
 Jalan M. H. Thamrin 1, Jakarta Pusat
 Jakarta
 Director General: Wijarso

G,R Pusat Pengembangan Teknologi Minyak Dan
 Gas Bumi [Oil and Gas Technology
 Development Centre]
 Jalan Cipulir, Kebayoran Lama, Jakarta Selatan
 Jakarta
 Director: Prof. Dr. Wahyudi Wisaksono

G Lembaga Oceanologi Nasional
 [National Institute of Oceanology]
 Komplek Bina Samudera
 Jalan Pasir Putih 1, Ancol Timur
 P.O. Box 580 DAK
 Jakarta
 Director: A. Sugiarto

C Jawatan Topografi Angkatan Darat (JATOP)
 [Army Topographic Service]
 Jalan Gunung Sahari 90
 Jakarta
 Director: Brig. General Rahardjo Dirdjosaputro

C Direktorat Tata Guna Tanah
 [Directorate of Land Use]
 Ministry of Internal Affairs
 Jalan Sisingamangaraja 2, Jakarta Selatan
 Kebayoran, Jakarta
 Director: I. M. Sandy

C Pusat Survei dan Pemetaan A.B.R.J. (Surta
 A.B.R.J.) [Armed Forces Surveys and
 Mapping Agency]
 Jalan Dr. Wahidin I/11, Jakarta Pusat
 Jakarta
 Chief: First Marshall D. U. Martoyo

C Badan Koordinasi Survei Dan Pemetaan
 Nasional (Bakosurtanal) [National
 Coordinating Body for Survey and Mapping]
 Jalan Raya Jakarta km 46
 Cibinong, Bogor
 Chairman: Pranoto Asmoro

H Jawatan Hidro-Oseanografi Angkatan Laut
 (JANHIDROS) [Navy Hydro-Oceanographic
 Institute]
 Jalan Gunung Sahari 87
 Jakarta
 Chief: Navy Kolonel P. L. Katoppo

H Departemen Pekerjaan Umum
 [Ministry of Public Works]
 Jalan Pattimura 20
 Kebayoran, Jakarta
 Minister: Soeyono Sosrodarsono (H.E.)

C Jawatan Pemotretan Udara
 [Aerial Mapping Service]
 Komplek Lapangan Udara Halim Perdanadusuma
 Jakarta
 Chief: First Marshall Suhardjo

G Pusat Penelitian dan Pengembangan Geologi
 [Geological Research and Development Center]
 Jalan Diponegoro 57
 Bandung
 Director: Hartono

G Pusat Pengembangan Teknologi Mineral
 [Mineral Technology Development Centre]
 Jalan Jenderal Sudirman 623
 Bandung
 Director: Bambang Sulasmoro

- G Direktorat Vulkanologi
 [Directorate of Volcanology]
 Jalan Diponegoro 57
 Bandung
 Director: A. Sudradjat
- G Direktorat Geologi Tata Lingkungan
 [Directorate of Environmental Geology]
 Jalan Diponegoro 57
 Bandung
 Director: E. J. Patty

IRAN

(No recent information)



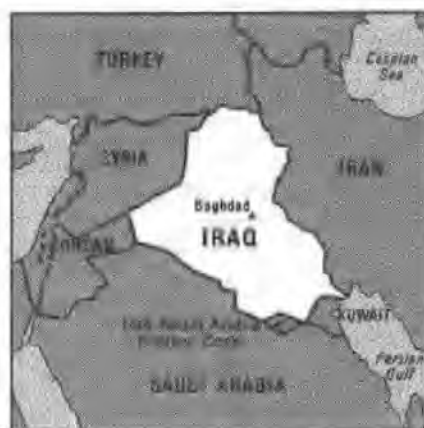
(See reference map VI)

- G Geological and Mineral Survey of Iran
 Ministry of Industry and Mines
 P.O. Box 1964
 Tehrân
 Director: A. Rahjoo
- G National Iranian Oil Company
 Takht-Jamshid Avenue
 Tehrân
 Director: H. Ansari
- G Atomic Energy Organization of Iran
 Karimkhan Avenue, Zahed Street
 Tehrân
 Director: A. Etemah
- C National Cartographic Center
 P.O. Box 1844, Mahrabad
 Tehrân
 Director: H. Noorbakhsh
- C National Geographic Organization
 Imperial Iranian Army
 Tehrân
 Director: Mahmoud Sadeghian

- H Institute of Hydro-Sciences and Water Resources
 Technology
 64 Ghadessi Street, North
 Boulevard Elizabeth
 Tehrân
 Director: S. Nazhand
- H Ministry of Water and Power
 Tehrân
 Minister: T. Tavakoli

IRAQ

(No recent information)



(See reference map VI)

- G,R,C Directorate General of Geological Survey and
 Mineral Investigation
 State Organization for Minerals
 P.O. Box 986 - Alwiyah
 Baghdad
- G,R,C State Establishment for Oil and Gas Exploration
 Iraqi National Oil Company
 P.O. Box 476
 Khullani Square
 Baghdad
- H,C State Establishment for Studies and Design
 State Organization for Dams
 P.O. Box 11001 - Karadah
 Baghdad
- H,C State Organization for Groundwater Investment
 P.O. Box 3231 - Waziriyah
 Baghdad
- C State Establishment for Surveying
 Ministry of Irrigation
 P.O. Box 5813
 Gailani Square
 Baghdad

- H Water Resources Department
Agricultural and Water Resources Research Center
Scientific Research Council
P.O. Box 2416 - Jadiriya
Baghdad
- G Seismology Unit
Building Research Center
Scientific Research Council
P.O. Box 255 - Jadiriya
Baghdad
- G,R Petroleum and Gas Engineering Department
Petroleum Research Center
Scientific Research Council
P.O. Box 10039 - Jadiriya
Baghdad

IRELAND



(See reference map V)

- G Geological Survey of Ireland
14 Hume Street
Dublin 2
Director: Dr. C. E. F. Williams
- H Hydrometric Service
Office of Public Works
17/19 Lower Hatch St.
Dublin 2
- C Ordnance Survey
Phoenix Park
Dublin 8
Assistant Director: Commdt. M. C. Walsh
- R Petroleum and Minerals Division
Department of Industry, and Energy
Nassau House
Dublin 2
Principal Officers: P. O'Brien
M. O'Connell

ISRAEL



(See reference map VI)

- G Geological Survey of Israel
30 Malchei Israel Street
Jerusalem
Director: Dr. Yosi Bartov
- G,H Institute for Petroleum Research and Geophysics
P.O. Box 1717
Holon
Director: Zvi Benari
- C Department of Surveys
Ministry of Labor
P.O. Box 14171
1 Rehov Lincoln
Tel Aviv
Director: Ron Edward
- H Hydrological Service
Ministry of Agriculture, Water Commission
Yirmiyahu Street, 50
Jerusalem 91060
Director: Martin Jacobs
- H Tahal-Water Planning for Israel
P.O. Box 11170
Tel Aviv
Director General: Arieh Gisser
- H Oceanographic and Limnological Research Institute
Tel Shikmona, Haifa
P.O. Box 8030
Haifa
Director: Dr. Collette Zruia
- C,G,H,R Earth-Sciences Research Administration
Ministry of Energy and Infrastructure
P.O. Box 1442
jerusalem
Director: Dr. Michael Beyth

ITALY

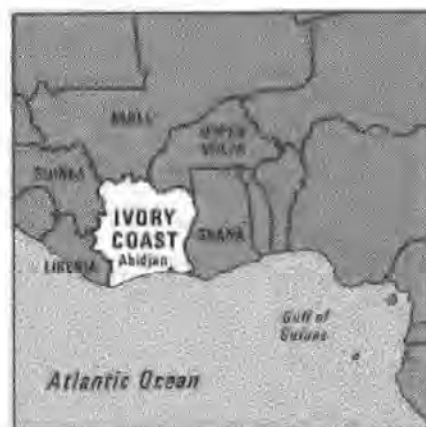


(See reference map V)

- G Servizio Sismico
Ministero dei Lavori Pubblici
Via Nomentana 2
00161 Roma
Acting Director: Ing. Attilio Cipolini
- G Istituto Internazionale per le Ricerche Geotermiche
Via del Buongusto 1
56100 Pisa
Director: Prof. Learco Taffi
- G Istituto Internazionale di Vulcanologia
Viale Regina Margherita 6
95123 Catania
Director: Prof. Letterio Villaria
- G Osservatorio Vulcanologico Vesuviano
80056 Ercolano (Napoli)
Director: Prof. Paolo Gasparini
- H Servizio Idrografico Centrale
Ministero dei Lavori Pubblici
Via Nomentana 2
00161 Roma
Director: Dr. Bruno Travaglini
- C Istituto Geografico Militare
Via Cesare Battisti 10
50122 Firenze
Director: Gen. Luigi Zanetti
- H Istituto Idrografico della Marina
Passo Osservatorio 4
161134 Genova
Director: Capt. Allesandro Ronca
- R Comitato Nazionale per le Scienze Geologiche e Minerarie
Consiglio Nazionale delle Ricerche
Piazzale Aldo Moro 7
00185 Roma
President: Prof. Antonio Praturlon

- R Direzione Generale delle Miniere e della Geologia
Ministero dell'Industria e del Commercio
Via Molise 2
00187 Roma
Director General: Ing. Silvano Santini

IVORY COAST



(See reference map VII)

- R,C,G Ministère des Mines
B.P. V 50
Abidjan
Minister: Paul Gui Dibo
- G Direction des Mines et de la Géologie
Ministère des Mines
B.P. V 81
Abidjan
Director: Jean Yagui Likan
- G Direction des Hydrocarbures
Ministère des Mines
B.P. V 42
Abidjan
Director: René Brancart
- G Direction de la Géologie
Ministère des Mines
B.P. V 28
Abidjan
Director: Victor Sea
- G,C Société pour le Développement Minier de la Côte d'Ivoire (SODEMI)
B.P. 2816
Abidjan
Director: Joseph N'zi
- G,R Société Nationale d'Opérations Pétrolières de la Côte d'Ivoire (PETROCI)
Ministère des Mines
B.P. V 194
Abidjan
Director-General: Paul Ahui

- H Service du Drainage et de l'Assainissement
B.P. 21 181
Abidjan
- C Institut Géographique de Côte d'Ivoire (IGCI)
Ministère des Travaux Publics et des Transports
01 BP 3862
Abidjan 01
Director: Alpha Cissé
- H Société pour la Réalisation de Forages
d'Exploitation en Côte d'Ivoire
Ministère du Plan
B.P. V 65
Abidjan
Director: Antoine Kouao

JAMAICA



(See reference map III)

- G Geological Survey Division
Ministry of Mining and Natural Resources
Hope Gardens
Kingston 6
Acting Director: Godfrey Perkins
- H Water Resources Division
Ministry of Local Government
P.O. Box 91, Hope Gardens
Kingston
Director: Serrant Hardware
- C Survey Department
P.O. Box 493
Kingston
Acting Director of Surveys: Rupert Robinson
- H National Water Authority
14-19 Trinidad Terrace
Kingston 5
Managing Director: S. A. Small

- R Mines and Quarries Division
Ministry of Mining and Natural Resources
Hope Gardens
Kingston 6
Commissioner of Mines: Godfrey Perkins
- R Petroleum Corporation of Jamaica
2 King St.
Kingston
Managing Director: William Saunders

JAPAN

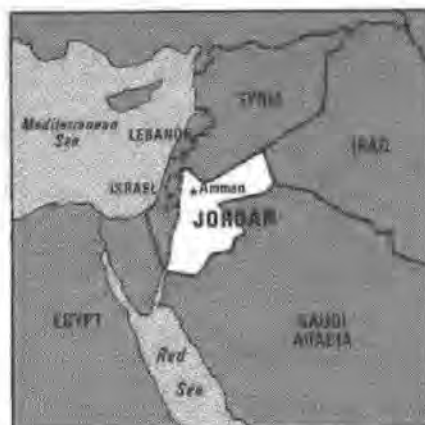


(See reference map VIII)

- G Nippon Kazan Gakkai
[Volcanological Society of Japan]
Earthquake Research Institute
University of Tokyo
1-1 Yayoi-cho 1-chome
Bunkyo-ku, Tokyo 113
President: Joyo Osaka
- G,H National Institute of Resources
Science and Technology Agency
2-2-1 Kasumigaseki
Chiyoda-ku, Tokyo 100
Director: Kiichiro Nagara
- G Public Works Research Institute
Ministry of Construction (includes engineering
geology)
1, Asahi, Toyosato-machi
Tsukuba-gun, Ibaraki-ken 305
Director: Ryuichi Iida
- G Earthquake Research Institute
University of Tokyo
1-1-1 Yayoi-cho 1-chome
Bunkyo-ku, Tokyo 113
Director: Daisuke Shimozuru

- G,H Geological Survey of Japan,
Ministry of International Trade and
Industry (MITI)
1-1-3 Higashi, Yatabe, Tsukuba-gun,
Ibaraki-ken 305
Director: Junji Suyama
- G Agency of Natural Resources and Energy
Ministry of International Trade and Industry
(MITI)
1-3-1 Kasumigaseki
Chiyoda-ku, Tokyo 100
Director-General: Toru Toyoshima
- G,R National Research Institute for Pollution and
Resources
Ministry of International Trade and Industry
(MITI)
Onogawa Yatabe-machi,
Tsukuba-gun, Ibaraki-ken 305
Director: Toru Ishihara
- H River Bureau
Ministry of Construction
2-1-3 Kasumigaseki
Chiyoda-ku
Tokyo 100
Director-General: Masatomo Kawamoto
- H Hydrographic Department
Maritime Safety Agency
Ministry of Transport
5-3-1, Tsukiji
Chuo-ku, Tokyo 104
Director-General: Kuniro Sugiura
- H Water Resources Bureau
National Land Agency
Prime Minister's Office
1-6-19 Azabudai
Minato-ku, Tokyo 106
Director-General: Hidenobu Takahide
- C Geographical Survey Institute
Ministry of Construction
1, Kitasato, Yatabe-cho
Tsukuba-gun, Ibaraki-ken 305
Director-General: Minoru Tajima
- R Technology Research Center
Japan National Oil Corporation
2-2-2 Uchisaiwai-cho, Chiyoda-ku, Tokyo 100
Director: Masakazu Kato

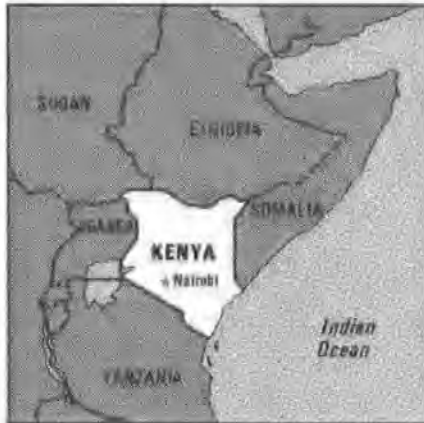
JORDAN



(See reference map VI)

- G Department of Geological Resources and Mining
(NRA)
P.O. Box 39
Amman
Director: Mohammed Abu Ajamiyeh
- G Royal Scientific Society
P.O. Box 6945
Amman
President: Albert Butros
- G,C,H,R Natural Resources Authority
P.O. Box 7, 39, or 2220
Amman
Vice-President: Ahmad Dukhgan
- C Department of Lands and Surveys
Ministry of Finance
P.O. Box 70
Amman
Director: Badri Al-Mulqi
- C Jordan National Geographic Center
P.O. Box 20214
Amman
Director: Rafat Majali

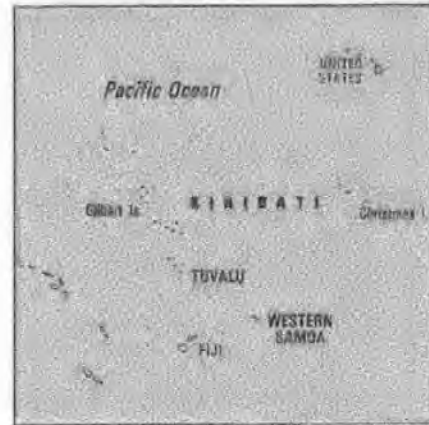
KENYA



(See reference map VII)

- G,R Geological Survey of Kenya
Mines and Geological Department
Ministry of Natural Resources
Madini House, Machakos Road
P.O. Box 30009
Nairobi
Chief Geologist: J. K. Wachira
- G Department of Geology
University of Nairobi
P.O. Box 30197
Nairobi
Chairman: Dr. I. O. Nyambok
- C Survey of Kenya
P.O. Box 30046
Nairobi
Director of Surveys: D. Kamau
- H Water Department
Ministry of Water Development
P.O. Box 30521
Nairobi
Director: Water Eng. Dept. - C. N. Mutitu
Water Res. Dept. - D. N. Kirori
- R Ministry of Environmental and Natural Resources
P.O. Box 30126
Nairobi
Deputy Secretary: G. G. Njoroge

KIRIBATI

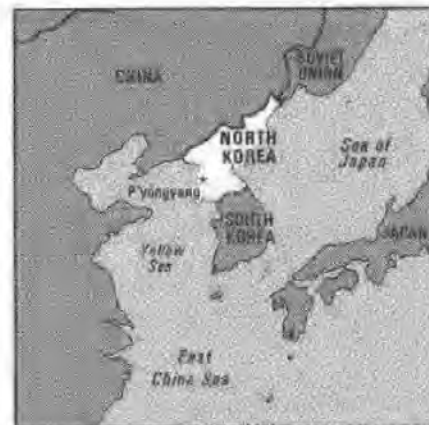


(See reference map X)

- G Ministry of Local Government and Rural
Development
Lands and Survey Division
P.O. Box 405
Betio, Tarawa
- H Ministry of Natural Resources
P. O. Box 64
Bairiki, Tarawa
Secretary for Natural Resource: M. Irata

KOREA, NORTH

(No recent information)

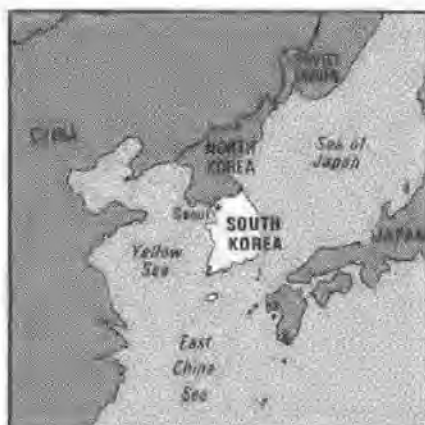


(See reference map VIII)

- C Geology and Geography Research Institute
Academy of Sciences
Mammoon-dong, Central District
P'yongyang
Director: Pak Sung Wook
- H Hydro-Meteorological Bureau
P.O. Box 100
P'yongyang
Director: Li Gon Il

- R Agency of Natural Resources and Energy
Ministry of International Trade and Industry
Director-General: Minour Masuda

KOREA, SOUTH

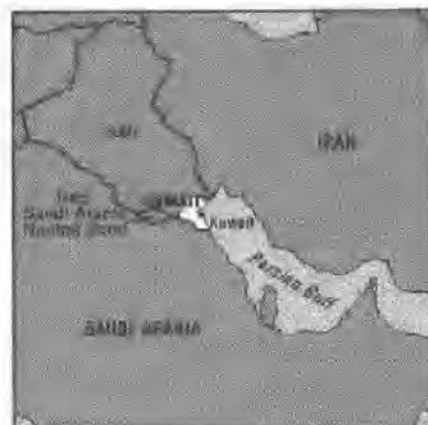


(See reference map VIII)

- G National Geography Institute
Ministry of Construction
43-1, Hwikyong-dong
Dongdaemun-Gu, Seoul
Director General: Yi Boo-Sik
- G,C Korea Institute of Energy and Resources
(KIER)
219-5, Garibong-dong
Guro-Gu, Seoul
President: Park Keung-Shik
- H,C Hydrographic Office
Ministry of Transportation
355, Chungrim-dong
Chung-Gu, Seoul
Director General: Kim Mun-Son
- R Korea Mineral and Mining Development
Cooperation
48-686-1, Sindaebang-dong
Kwanak-Gu, Seoul
President: Kim Bok-Dong
- H Korea Ocean Development Research Institute
215-1, Socho-dong
Kangnam-Gu, Seoul
Director General: Huh Hyung-Dack
- C Korean Society of Geodesy, Photogrammetry and
Cartography
18, Kyonam-dong
Jongro-Gu, Seoul
President: Ahn Chul-Ho

- H Bureau of Water Resources
Ministry of Construction
Government Central Building
Gwachun, Kyonggi-do
Director General: Han Soo-En

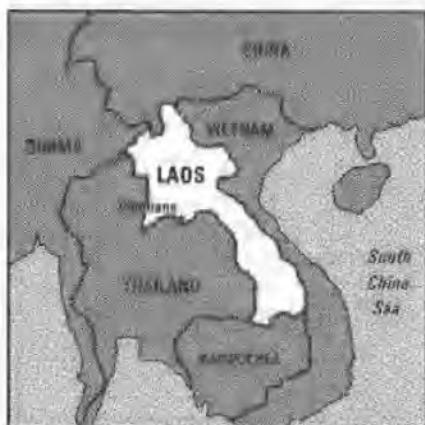
KUWAIT



(See reference map VI)

- G Kuwait Institute for Scientific Research
P.O. Box 12009 Shamiah
Kuwait
Director-General: Adnan Shehabedin
- H Ministry of Electricity and Water
P.O. Box 12
Kuwait
Head of the Design Section of Water Department:
Mustapha Al Shater
- C Director of Building and Survey Department
Kuwait Municipality
P.O. Box 10, Safat
Kuwait
Director and Chief Engineer: Hamed A. Shuaib
- R Ministry of Oil
P.O. Box 5077
Kuwait
Assistant Secretary for Technical Affairs:
Sulaiman N. Al-Omani
- R Kuwait National Petroleum Company
P.O. Box 70
Kuwait
Chairman and Managing Director:
Ahmad Abdulmohsin Al Mutair

LAOS



(See reference map IX)

- G,R Direction de Géologie et des Mines
Ministère de l'Industrie, l'Artisanat et Forêts
Vientiane
Director: Bosaikham Vongdara
- H Service de la Météorologie et de l'Hydrologie
Ministère de l'Agriculture, Irrigation et
Cooperatives
B.P. 323
Vientiane
Director of Hydrology: Koun Sengdara
- C Service Géographique Nationale
Office of the Council of Ministers
B.P. 167
Vientiane
Director of Cartography: Kone Keognothi

LEBANON

(No recent information)



(See reference map VI)

- Q Directorate General of Public Works
Ministry of Public Works
Beirut
Director General: Antoine Rayes

- H Ministry of Hydro-Electric Resources
Beirut
Director General of Hydro-Electric Installation:
Rida Dehaini
Director of Hydraulic Installations: Lucien
Mubayed
- R Ministry of Petroleum
Beirut
Director General: Ibrahim Choueiri
- R Ministry of Industry
Beirut
Director, Technical Department: Imad Nawam

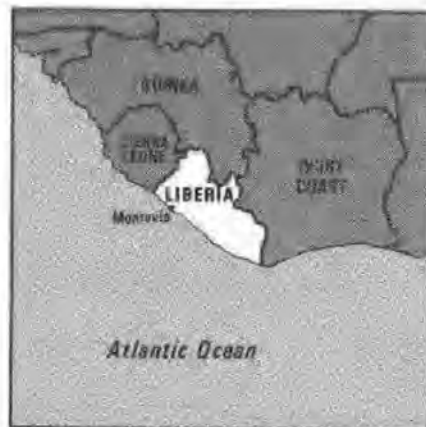
LESOTHO



(See reference map VII)

- G Department of Mines and Geology
Ministry of Water, Energy and Mining
P.O. Box 750, Maseru 100
Commissioner: M. Lerotholi
- C Department of Lands, Surveys and Physical
Planning
Ministry of Interior, Chieftainship Affairs and
Social Welfare
P.O. Box 174, Maseru 100
Commissioner: Abner Mosaase
- H Hydrology and Meteorological Services
Ministry of Water, Energy, and Mining
P.O. Box 772, Maseru 100
Principal Hydrologist: Sechocha Makhoalibe
Acting Principal Hydrologist: Tseliso Sekoli

LIBERIA



(See reference map VII)

- G,C,H,R Ministry of Lands, Mines and Energy
 Capitol Hill
 P.O. Box 9024
 Monrovia
 Minister: Fodee Kromah
- G Liberian Geological Survey
 Ministry of Lands, Mines and Energy
 P.O. Box 9024
 Monrovia
 Director: Dr. Eugene Shannon
- C Liberian Cartographic Service
 Ministry of Lands, Mines and Energy
 P.O. Box 9024
 Monrovia
 Director: G. Yarkpazuo Miller
- H Liberian Hydrological Service
 Ministry of Lands, Mines and Energy
 P.O. Box 9024
 Monrovia
 Director: John Nylander
- G,R Bureau of Mines
 Ministry of Lands, Mines and Energy
 P.O. Box 9024
 Monrovia
 Director: Amara Bako Freeman
- R Bureau of Hydrocarbon
 Ministry of Lands, Mines and Energy
 P.O. Box 9024
 Monrovia
 Director: Dr. E. Miedi Himie Neufville
- R Bureau of Economic Forecast and Concession
 Appraisal
 Ministry of Lands, Mines and Energy
 P.O. Box 9024
 Monrovia
 Acting Director: Izeeta S. Wesley

- R Bureau of Lands, and Survey
 Ministry of Lands, Mines and Energy
 P.O. Box 9024
 Monrovia
 Director: James G. Glay

LIBYA

(No recent information)



(See reference map VII)

- G Geological Research and Mining Department
 Industrial Research Center
 P.O. Box 3633
 Tripoli
 Director: Mohamed Bourkhis
- G,C,H,R Planning Division
 Secretariat of Agrarian Reform and Land
 Reclamation
 P.O. Box 190
 Tripoli
 Director: Ahmad Gartaa
- G,H Agricultural Research Center
 P.O. Box 2480
 Tripoli
 Chairman: Abdoulmajid Bensad
- G,H,C,R Geological Department
 Faculty of Science
 Al-Fateh University
 P.O. Box 398
 Tripoli
- H Water Resources and Dams Ministry
 Tripoli
- H Water Department
 Secretariat of Agrarian Reform and Land
 Reclamation
 P.O. Box 190
 Tripoli
 Director: Abdullah M. Krewi

C Department of Surveying
 Secretariat of Planning
 P.O. Box 600
 Tripoli
 Director: Muftah M. Unis

R Secretariat of Petroleum
 Tripoli
 Minister: Izziddin Mabruk

LIECHTENSTEIN



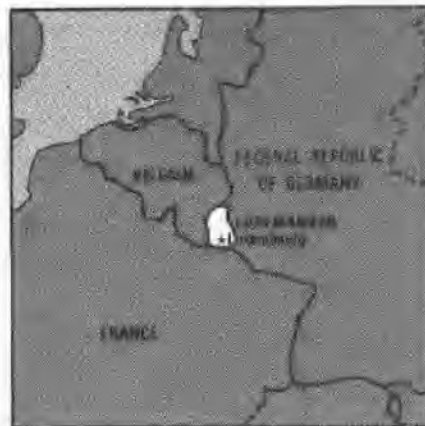
(See reference map V)

G,C Landesbauamt des Fürstentums Liechtenstein
 Städte 49
 9490 Vaduz
 Chief Surveyor: Dr. Karl Hartmann

R Amt. für Gewässerschutz
 [Water Conservation Office]
 Städtle 49
 9490 Vaduz
 Director: Theo Kindle

C,R Landwirtschaftamt
 [Agricultural Office]
 Städtle 49
 9490 Vaduz
 Director: Ernst Ospelt

LUXEMBOURG



(See reference map V)

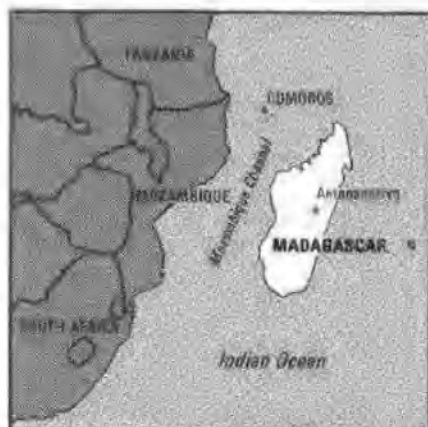
G Centre Sismologique
 Walferdange
 Administration Communale
 Service Topographique
 51, Bol. Royal
 Luxembourg
 Director: Jean Flick

G Service Géologique
 Ponts et Chaussées
 43, Bol. G.D.-Charlotte
 Luxembourg
 Director: Jacques Bintz

H Service de la Météorologie et de l'Hydrologie
 16, route d'Esch
 Luxembourg
 Director: R. Kipgen

C Administration du Cadastre et de la Topographie
 54 Avenue Gaston Diderich
 Luxembourg
 Director: Victor Poos

MADAGASCAR



(See reference map VII)

G,E,C,R **Ministere de l'Industrie, de l'Energie
at de Mines (MIEM)**
B.P. 280
Antananarivo
Minister: Tantely Andrianarivo
Director General: Blandin Razafimanjato

R **Director of Mines and Energy:**
Wilson Rakotoarivelo

G,R **Chief of Service of Mines and Geology:**
Jean Rene S. Ratsimbazafy

G **Chief of Division of Geology:**
Jeannot Rasoanaivo

H **Chief of Service of Energy:**
Ammanuel Randrianariosoa

G,H **Chief of Division of Hydrogeology:**
Jean Herivelo Rakotondrainibe

G **Ministere de La Recherche Scientifique et
Technologie pour le Developpement (MRSTD)**
B.P. 694
Antananarivo
Minister: Zafera Antoine Rabesa
Secretary General: Henri Rasolondraibe

G **Centre National de Recherches Oceanographiques**
B.P. 68
Nosy Be
Director: Andrianirina Ralison

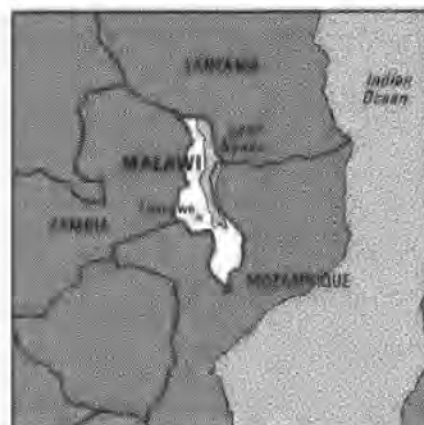
C **Institut National de Géodesie et de Cartographie**
[Foibe-Taosarintanin'i Madagasikara (FTM)]
3 Lalana J. H. Ravelomanantsoa
B.P. 323, Andohalo
Antananarivo
Director: M. S. Andriamihaja

H **Service de la Meteorologie**
Direction des Transports et de la
Meteorologie, MTRT
B.P. 1254
Chief of Service: Elie Randrianarison

H **Division de l'Hydrologie**
Chief of Division: Andriambola Ralison

R **Office Militaire National Pour les Industries
Strategiques (OMNIS)**
B.P. 1 bis
Antananarivo
Director General: General Hubert Andrianasolo
Director of Atomic Energy:
Andrianaivomanana Razafindramisa
Director of Hydrocarbons: Georges Ramanoara

MALAWI



(See reference map VII)

G,H **Geological Survey Department**
Ministry of Natural Resources
P.O. Box 27, Liwonde Road
Zomba
Chief Geologist: Dr. R. L. Johnson

C Survey Department
Ministry of Natural Resources
P.O. Box 349
Blantyre
Chief Cartographer: A. F. Tambala

H Water Resources Division
Ministry of Agriculture
P.O. Box 30026
Lilongwe 3
Chief Water Resources Officer: K. A. Edwards
Senior Hydrologist: L. Z. Lai

MALAYSIA



(See reference map IX)

G Geological Survey Department
Bangunan Ukor, 2d Floor
Jalan Gurney
Kuala Lumpur
Director-General: Dr. Santokh Singh

H Drainage and Irrigation Department
Ministry of Agriculture
Jalan Mahameru
Kuala Lumpur, Malaysia 10-02
Director General: Pang Leong Hoon

C Directorate of National Mapping
Bangunan Ukor, 4th Floor
Jalan Gurney
Kuala Lumpur
Director: Seah Kok Seang

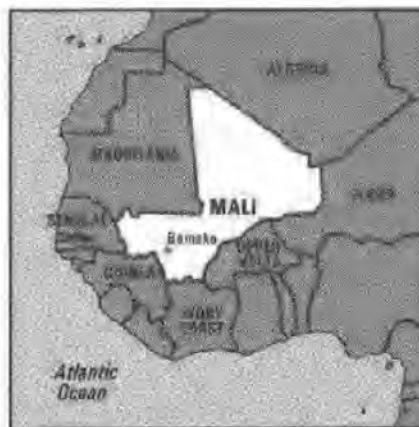
R Ministry of Land and Regional Development
Bangunan Ukor
Jalan Gurney
Kuala Lumpur
Minister: Datuk Rais Yatim

R Petronas [National Petroleum Company]
P.O. Box 2444
Kuala Lumpur
Chairman: Tan Sri Abdullah
Bin Mohd. Salleh

R Mines Department
Bangunan Ukor, 6th Floor
Jalan Gurney
Kuala Lumpur
Head: Tan Kim Bee

MALI

(No recent information)



(See reference map VII)

G Direction Nationale des Mines et de la Geologie
B.P. 223
Koulouba, Bamako
Directeur General: Sekou Diallo

C Institut National de Topographie
B.P. 240
Bamako
Director: Diadie Traore

H Service Hydrologique
Direction Generale de l'Hydraulique et de
l'Energie
B.P. 66
Bamako
Chief: Dembelle Aly

R Société Nationale de Recherches et
d'Exploitation des Ressources Minières du Mali
(SONAREM)
B.P. 2
Kati
Directeur General: Makan Kayentao

MALTA



(See reference map V)

- G Public Works Department
Beltissebh
- H Hydrology Section
Water Works Department
Beltissebh
Floriana
Chief: Francis Toledo
- C Information Division
Auberge de Castille
Valletta
- R Ministry of Parastatal and People's Investments
Lascaris
Valletta

MARTINIQUE



(See reference map III)

- G,H Office de la Recherche Scientifique et Technique
Outre-mer (ORSTOM)⁷
B.P. 81
97000 Fort-de-France

MAURITANIA



(See reference map VII)

- G Direction des Mines et de la Géologie
Ministère des Mines et de l'Énergie
B.P. 199
Nouakchott
Director: Abdel-Kader Ould Saleh
- G Office Mauritanien de Recherches Géologiques
B.P. 654
Nouakchott
Director: Cheikhouna Kamara

⁷French research organization; no governmental affiliation.

C Service Topographique et Cartographique
 B.P. 237
 Nouakchott
 Director: Sarr Mamadou Moctar

MAURITIUS



(See reference map VII)

G Ministry of Agriculture and Natural Resources
 and The Environment
 Port Louis

C Ministry of Housing, Lands, and Town and
 Country Planning
 Survey Department
 Port Louis
 Chief Surveyor: M. Derblay

H Central Water Authority
 Jules Koenig Street
 Port Louis
 Principal Hydrologist: G. Rogbeer

MEXICO



(See reference map II)

G Instituto de Geología
 Universidad Nacional Autónoma de México
 (UNAM)
 Ciudad Universitaria
 México 20, D.F.
 Director: Dr. José Guerrero García

G Instituto de Biología
 Universidad Nacional Autónoma de México
 (UNAM)
 Ciudad Universitaria
 México 20, D.F.
 Director: Dr. José Sarukhán Kermez

G Consejo de Recursos Minerales
 Niños Heroes 139, Esq. Dr. Navarro
 México 7, D.F.
 Director General: Jorge Leipen Garay

G Coordinación de la Investigación Científica
 Universidad Nacional Autónoma de México
 (UNAM)
 Ciudad Universitaria
 México 20, D.F.
 Coordinador: Dr. Jaime Martuscelli

G Instituto de Ciencias del Mar y Limnología
 Universidad Nacional Autónoma de México
 (UNAM)
 Ciudad Universitaria
 México 20, D.F.
 Director General: Dr. Agustín Ayala Castañares

G Comisión de Fomento Minero
 Puente de Tecamachalco No. 26
 México 10, D.F.
 Apartado Postal 10-762
 Director General: Lic. Luis de Pablo Ferna

- G Instituto de Geofísica
Universidad Nacional Autónoma de México
(UNAM)
Ciudad Universitaria
México 20, D.F.
Director: Dr. Ismael Herrera Revilla
- G Instituto Mexicano de la Fluorita, A.C.
Tokio No. 4, Esq. Praga
Apartado Postal 6-783
México 6, D.F.
Director General: Ing. Alejandro Prieto Huesca
- G Petroleos Mexicanos
Av. Marina Nacional 329
Edificio 1810, 12° piso
México 17, D.F.
Director General: Lic. Mario Ramón Beteta
- G Instituto Mexicano del Petróleo
Av. Cien Metros No. 152
México 14, D.F.
Director General: Ing. José Luis García Luna
Hernández
- G Instituto Nacional de Investigaciones Nucleares
Benjamin Franklin 161
México, D.F.
Director: Ing. Ruben Bello
- G Comisión Federal de Electricidad
Río Rodano 14
México 5, D.F.
Director General: Ing. Fernando Hiriart
Balderrama
- G Siderúrgica Mexicana, S.A.
Abel No. 73
Col. Guadalupe Tepeyac
México 14, D.F.
Gerente General: Ing. José Marín Cadarso
- C,G Departamento Geográfico Militar
Servicio Cartográfico
Secretaría de la Defensa Nacional
Lomas de Sotelo
México 10, D.F.
Director General: General Ulises Beltrán Tenorio
- C,G Dirección General de Estudios del Territorio
Nacional (DETENAL)
Secretaría de Programación y Presupuesto
San Antonio Abad 124, 5° piso
México 8, D.F.
Director: Lic. Nestor Duch Gary
- H Secretaría de Agricultura y Recursos
Hidráulicos
Insurgentes Sur 476, 13° piso
México 7, D.F.
Secretary: Ing. Horacio García Aguilar

MONGOLIA



(See reference map VIII)

- G Institute of Geology
Academy of Sciences
Ul, Leniadam 2
Ulaanbaatar
Director: B. Luvsandandzan
- G,C Institute of Geography and Permafrost Studies
Academy of Sciences
Ulaanbaatar
Director: S. H. Tsegmed
- G,H Hydrometeorological Service
Gudamj Ooctober 5
Ulaanbaatar
Director: D. Tubdendorf
- H Ministry of Water Economy
Gudamj Natsagdorjyn
Ulaanbaatar

MOROCCO



(See reference map VII)

- G Division de la Géologie
Ministère de l'Énergie et des Mines
Quartier Administratif
Rabat
Director: Mohamed Ben Saïd
- C Direction de la Recherche Agronomique
Service Cartographique des Sols et de l'Erosion
Avenue de la Victoire
B.P. 415
Rabat
Chief: M. H. Ghanem
- C Ministère de l'Agriculture et de la Reforme
Agraire
Quartier Administratif
Rabat
Minister: Othman Demnati
- H Direction de l'Hydraulique
Division de Ressources en Eau
Avenue John Kennedy
B.P. 525 Rabat-Chellah
Rabat
Director: Abdelhaq Fakihani
- R Ministère de l'Énergie et des Mines
Ministry of Energy and Mines
Quartier Administratif
Rabat
Minister: Moussa Saaid
Director of Mines: Othman Kettouche
Director of Energy: Ahmed Bouhouli
- R Societe Nationale des Ressources Pétrolières
(SNPP)
42, avenue de l'Armée Royale
3^{ème} étage
B.P. 178
Casablanca

MOZAMBIQUE



(See reference map VII)

- G,R Direcção Nacional de Geologia
[National Directorate of Geology]
Praça 25 de Junho/Maputo
P.O. Box 217
Maputo
Director: Rui Santos Garcia
- R Direcção Nacional de Minas
[National Directorate for Mines]
Avenida Filipe Samuel Magaia, 528
2d Floor
P.O. Box 217
Maputo
Director: Dr. Carlos Magno
- R Empresa Nacional de Minas E.E.
[National Mining Enterprise]
Avenida 24 de Julho 1895, 2d Floor
P.O. Box 1152
Maputo
Director: Dr. Mahomed Jaffarullah
- R Secretariado de Estado do Carvão e
Hidrocarbonetos
[State Secretariat for Coal and Hydrocarbons]
Avenida Samora Machel, 39
P.O. Box 2904
Maputo
Secretary of State: Abdul Magid Osman
- H Direcção Nacional de Águas
[National Directorate of Hydrology]
Avenida 25 de Setembro, 942 - 7th Floor/Maputo
P.O. Box 1611
Maputo
Director: Eng. Arnaldo Pereira

C Direção Nacional de Geografia e Cadastro
[National Directorate for Geography and
Mapping]
Avenida Josina Machel, 589/Maputo
P.O. Box 288
Maputo

R Ministry for Mineral Resources
Praça 25 de Junho
P.O. Box 217
Maputo
Minister: José Carlos Lobo

NAMIBIA (SOUTHWEST AFRICA)

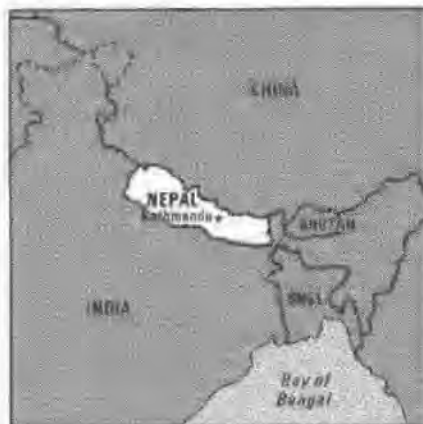


(See reference map VII)

G Geological Survey
P.O. Box 2168
Windhoek

C The Surveyor General
P/B 13182 Kaiser Street
Windhoek

NEPAL



(See reference map VIII)

G,R Department of Mines and Geology
Ministry of Industry
Lainchaur
Kathmandu
Director-General: Mahendra Narsingh Rana

C Survey Department
Ministry of Land Reform
Dilli Bazar
Kathmandu
Director General: Arjun Bahadur Basnyat

H Department of Irrigation, Hydrology and
Meteorology
Ministry of Water Resources
Panipokhari
Kathmandu
Director-General: Chitra Dev Bhatta

NETHERLANDS, THE



(See reference map V)

G Rijks Geologische Dienst
Spaarne 17, P.O. Box 157
2000 AD Haarlem
Director: B. P. Hageman

- H Committee for Hydrological Research TNO
P. O. Box 297
2501 BD 's-Gravenhage
- H Groundwater Survey TNO
P.O. Box 285
2600 AG Delft
Director: F. Walter
- H Ministry of Transport and Water Resources
Rijkswaterstaat [State Public Works]
Directorate for Water Management and Hydraulic
Research
1 Hooftskade
2526 KA The Hague
- C Dienst van het Kadaster
Waltersingel 1
7314 NK Apeldoorn
- C Topografische Dienst
Westvest 9
2611 AX Delft
- R Ministry of Economic Affairs
Directorate General for Energy
Bezuidenhoutseweg 30
2594 AV The Hague
Director General: Dr. G. H. B. Verberg

NETHERLANDS ANTILLES



(See reference map III)

- C Bureau voor Kadaster en Kaartering
Sint Anna Boulevard 4
Willemstad, Curacao
Director: Ir. H. B. Calvo
- R Bureau voor Olie Aangelegenheden
[Bureau of Petroleum Affairs]
Wolkstraat 3
Willemstad, Curacao
Director: Clark Gomes-Casseres

- R,G Aruba Mining Company (ARUMINCO)
L. G. Smith Boulevard 42
Oranjestad, Aruba
Director: T. M. Monzon

NEW CALEDONIA



(See reference map X)

- H Office de la Recherche Scientifique et Technique
Outre-mer (ORSTOM)⁸
B.P.A. 5
Noumea Cedex
Chief Scientist: J. Recy
- G Service des Mines et de la Géologie
Rte. No. 1
B.P. 465
Noumea
- C Service Topographique
Territorial Administration Center
Avenue Paul Doumer
Noumea Nouvelle

⁸French research organization; no governmental affiliation.

NEW ZEALAND



(See reference map X)

- G Geophysics Division
Department of Scientific and Industrial Research
P.O. Box 1320
Wellington 1
Director: Dr. T. Hatherton
- G New Zealand Geological Survey
Department of Scientific and Industrial Research
P.O. Box 30-368
Lower Hutt
Director: Dr. R. P. Suggate
- C The Surveyor General, Head Office
Department of Lands and Survey
Private Bag, Charles Ferguson Building
Wellington
Surveyor General: Warren N. Hawkey
- H Ministry of Works and Development
Private Bag
Wellington
Commissioner: R. G. Norman
- H New Zealand Oceanographic Institute, Evans Bay
P.O. Box 12346
Wellington
Director: Dr. D. Hurley
- R New Zealand Mines Department
Oil and Gas Exploration
P.O. Box 6342
Te Aro, Wellington
Chief Mines Engineer (Minerals): A. B. Cowie

NICARAGUA

(No recent information)



(See reference map III)

- G Proyecto Geotérmico
Empresa Nacional de Luz y Fuerza (ENLUF)
Apartado 55
Managua
Director: Emilio Rappaccioli
- G Corporación Nicaraguense de Minas e
Hidrocarburos (CONDEMIA)
Apartado Postal No. 8
Managua, D.N.
Ministro: Carlos Zarruck
- G Instituto Nicaraguense de Recursos Naturales
y del Ambiente (IRENA)
Apartado Postal No. 5123
Managua, D.N.
Director: Jorge Jenkins
- G Instituto de Investigación Sísmica
Apartado Postal No. 1761
Managua, D.N.
- C Instituto Geográfico Nacional
Ministerio de Fomento y Obras Públicas
Apartado Postal 2120
Managua, D.N.
Director: Adolfo Espino G.

NIGER



(See reference map VII)

- G,H Direction des Mines et de la Géologie
Ministère des Mines et de l'Hydraulique
BIP. 257
Niamey
Secretary General: Sori Boubacar
Directeur of Mines: Issoufou Mahamane
- H Service Hydrologique de Génie Rural
Ministère du Développement Rural
B. P. 241
Niamey
Directeur: Ali Seyni
- C Direction du Service Topographique et du
Cadastre
Ministère des Finances
B.P. 250
Niamey
Directeur: Abdou Kané
- H Office des Eaux de Sous-sol (OFEDES)
B.P. 734
Niamey
Directeur: Imini Mahamane
- R Office Nationale des Recherches Minières
(ONAREM)
B.P. 210
Niamey
Directeur: Sani Koutoubi

NIGERIA



(See reference map VII)

- G,H Geological Survey Department of Nigeria
Ministry of Mines and Power
P.M.B. 2007
Kaduna South, Kaduna State
Director: C. N. Okezie
- G Ministry of Mines and Power
Lagos Office, Geological Survey Department
P.M.B. 12574
Lagos
Principal Geologist: H. T. Molokwu
- G Nigerian Coal Corporation
P.M.B. 1053
29 Okpara Ave
Enugu, Anambra
Administrator: O. A. Udemah
- G Nigerian Mining Corporation
24 Naraguta Ave.
P.M.B. 2154
Jos, Plateau State
General Manager: Alhaji Rilwanu Lukman
- G Ministry of Mines and Power
Lagos Office, Mines Division
P.M.B. 12574
Lagos
Director of Mineral Resources:
Alhaji Inua Gombe
- R Nigerian National Petroleum Corporation
P.M.B. 12701
Lagos
Managing Director: F. R. A. Marinho

- C Cartographic Section
Geological Survey Department
P.M.B. 2007
Kaduna South, Kaduna State
Officer in Charge: J. A. Ogunkoya
- C Surveys Division
Federal Ministry of Works
Igboere Road at Okesuna Street
Lagos
Director of Federal Surveys:
A. O. Adebekun
- H Federal Ministry of Water Resources
9 Kofo Abayomi Street
Victoria Island
P.M.B. 12700
Lagos
Minister: Dr. Bykar Shaib
- R Federal Ministry of Mines and Power
Broad Street Office
Lagos Office, Geological Survey Department
Lagos
Minister: Alhaji Rilwanee Lukman

NORWAY



(See reference map V)

- G Norwegian Geotechnical Institute
P.O. Box 40 Tasen
Oslo
Director: Dr. Kaare Hoeg
- G,C Norsk Polarinstitut
[Norwegian Institute for Polar Affairs]
Rolfstangveien 12
Postboks 158
1330 Oslo Lufthavn
Director: Tore Gjelsvik
- G,C Continental Shelf, Institute (IKU)
Håkon Magnussonsgt. 1B
Postboks 1883
7001 Trondheim
Director: Tore Hartvig
- H Norsk Institutt for Vannforskning
[Norwegian Institute for Water Research]
Postboks 333, Blindern
Oslo 3
Chief: Lars Overrein
- R Ministry of Environment
Myntgata 2
Postboks 8013 DEP
Oslo 1
Director General for Resources:
Kjell Glomnes
- R Oljedirektoratet
[Norwegian Petroleum Directorate]
Laagaardsveien 80
4000 Stavanger
Director: Fredrik Hagemann
- R Ministry of Petroleum and Energy
Tollbugata 31
Oslo 1
Director-General: Knut Daehlin

- G Norges Geologiske Undersøkelse
[Norway Geological Survey]
Leiv Erikssons Vei 39
P. B. 300
7001 Trondheim
Managing Director: Knut S. Heier
- G Den Geofysiske Kommissjon
[The Geophysical Commission]
Meteorologisk Institutt
Nils Henriks Abelsvei 40
Oslo 3
President: Kaare Langlo

OMAN

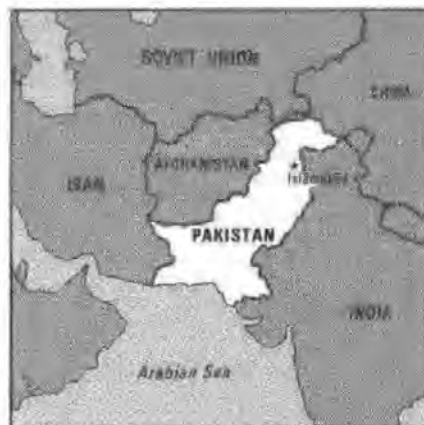


(See reference map VI)

- G,R Ministry of Petroleum and Minerals
P.O. Box 551
Muscat
Minister: Said Ahmad Al-Shanfari
Director General of Technical Affairs:
Khalifa Mubarak Al-Hinai
- H Ministry of Agriculture and Fisheries
P.O. Box 467
Muscat
Minister: Abdul Hafez Salim Rajab
- C Ministry of Defence
P.O. Box 113
Muscat
Deputy Prime Minister for National Security and
Defense: Sayyid Fahar bin Taimur al-Said
- H Ministry of Communications
P.O. Box 684
Muscat
Contact: Sayyid Salim Bin Nasser
Al-Busaidi
- H Public Authority for Water Resources
P.O. Box 5225
Ruwi
Chairman: Abdul Hafiz Salim Rajab
Technical Secretary: Dr. Robert Dale

PAKISTAN

(No recent information)



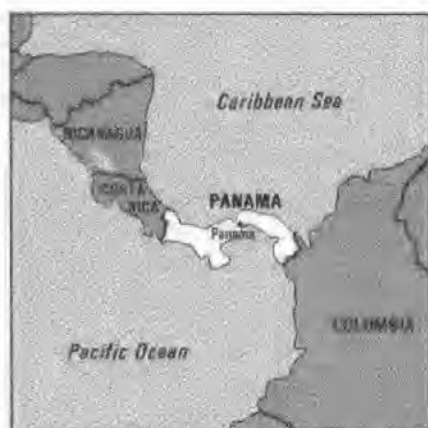
(See reference map VIII)

- G Resource Development Corporation
8th Floor, Dawood Center
Karachi-4
General Manager: S. A. Bilgrami
- G Oil and Gas Development Corporation
Shafi Chambers, Club Road
Karachi-4
Chairman: Iftikharuddin Ahmed
- G Geological Survey of Pakistan
P. O. Box 15
Quetta
Director General: Asrarullah
- C Survey of Pakistan
Shahrah-i-Muhammad Raza Shah Pehlvi
Post Box 10
Rawalpindi
Surveyor General: Mian Muhammad Sharif
- H Water and Power Development Authority
WAPDA House
Lahore
Chairman: Fazle Raziq
- H Ministry of Water and Power
Secretariat Block "A"
Islamabad
Additional Secretary: M. Q. Siddiqui
- H Flood Forecasting and Warning Center
46 Gulberg Road
Lahore
Member: Zarif Ahmed

R Ministry of Petroleum and Natural Resources
 Secretariat Block "A"
 Islamabad
 Secretary, Petroleum Division: T. H. Hashmi
 Secretary, Water, Power and Natural Resources
 Division: Masroor Hasan Khan

R Pakistan Minerals Development Corporation
 (PMDC)
 PIDC House
 Dr. Ziauddin Ahmed Road
 Karachi
 Chairman: F. K. Khilji

PANAMA



(See reference map III)

G,R Dirección General de Recursos Minerales
 Apartado Postal 9658, Zona 4
 Panama
 Director: Julio Mérida

G,R Dirección General de Hidrocarburos
 Apartado Postal 9658, Zona 4
 Panama
 Director: Eng. Nitzia de Villarreal

G Corporación de Desarrollo Minero-Cerro
 Colorado (CODEMIN)
 Apartado 5312
 Panama 5
 Presidente: Eng. Jaime Roquebert

C Instituto Geográfico Nacional "Tommy Guardia"
 Apartado Postal 5267, Zona 5
 Panama
 National Director: José Antonio Tejada

H Instituto de Acueductos y Alcantarillados
 Nacionales (IDAAN)
 Apartado 5234
 Panama 5
 Director: Ivan Estribi

H,G Instituto de Recursos Hídricos y Electrificación
 (IRHE)
 Apartado 5285
 Panama 5
 Director: Edwin Fabrega

H,R Dirección Nacional de Recursos Nacionales
 Renovables (RENARE)
 Ministerio de Desarrollo Agropecuario
 Apartado 2016
 Paraiso, Corregimiento de Ancón
 Director: Dr. Sergio Castillo Martínez

PAPUA NEW GUINEA

(No recent information)



(See reference map X)

G Geological Survey Division
 Office of Minerals and Energy
 Box 778
 Port Moresby
 Chief Geologist: A. McKinlay

C Department of Natural Resources
 Papua
 Surveyor General: Kisokau Pochapon

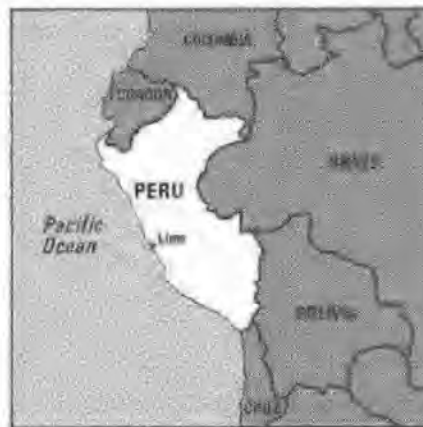
PARAGUAY



(See reference map IV)

- C** Instituto Geográfico Militar
Avenida Artigas casi Perú
Asunción
Director: Gral. Abraham Abed
- G,R** Dirección de Recursos Minerales
Ministerio de Obras Públicas y Comunicaciones
Calle Alberdi y Oliva
Asunción
Director: Ing. Luis Alberto Ruotti
- G** Institute of Basic Sciences
Ciudad Universitaria
Km 10, San Lorenzo
Director: Prof. Dr. Narciso Gonzalez R.
- G** Department of Science and Technology
Ciudad Universitaria, Lambare
Director: Dr. Luis Meyer
- H** Dirección de Meteorología
Ministerio de Defensa Nacional
Av. Mariscal López y Vice Presidente Sánchez
Asunción
Director: Lic. Francisco Solano Santacruz
- H** Administración Nacional de Navegación y Puertos
Plazuela Isabel La Católica
Asunción
Presidente: Contralmirante Ramón E. Martino
- R** Dirección de Industrias Militares
Ministerio de Defensa Nacional
Avenida General Santos y Manuel Dominguez
Asunción
Director: Gral. Robert P. Knopfmacher

PERU



(See reference map IV)

- G** Instituto Geofísico del Perú
Casilla 3747
Lima
President: Dr. Ronald Woodman
- G** Instituto Peruano de Energía Nuclear (IPEN)
Luis Aldana 120, Urb. Santa Catalina
Lima
Presidente: General E. P. Juan Barrera Delgado
- G,C** Instituto Geológico Minero y Metalúrgico
(INGEMMET)
Pablo Bermudez 211
Apartado 889
Lima
Presidente: Mario Samame Boggio
- G** Empresa Minera del Perú (MINPERO PERÚ)
Bernado Monteagudo 222
Orrantia, Lima
Presidente: Antonio Tarnawiecki
- G** Empresa Minera del Centro del Perú
(CENTROMIN)
Casilla 4547
Lima
Presidente: Felix Remy
- G,H** Instituto del Mar del Perú (IMARPE)
Chucuito, Callao
Presidente: Almirante A. P. Daniel Masias A.
- G,C,H,R** Oficina Nacional de Evaluación de Recursos
Naturales (ONERN)
Calle 17 # 355, Urb. El Palomar, San Isidro
Lima
Jefe Encargado: Carlos Zamora

- C Servicio Aerofotográfico Nacional (SAN)
Base Aérea "Las Palmas"
Barranco, Lima
Director: Mayor Gral. F. A. P. Oscar Carrera
- C Instituto Geográfico Militar
Av. Andres Aramburu 1198
Apartado 2038
Lima
Director General: General E. P. Alberto
Delgado V.
- C,H Dirección de Hidrografía y Navegación de la
Marina (DHNM)
Calle Saenz Peña No. 590, La Punta (Callao)
Casilla Postal #80, Callao
Lima
Director: Contralmirante A. F. Jorge del Aguila
- H Servicio Nacional de Meteorología e Hidrología
(SENAMHI)
Rep. de Chile 295, Of. 205
Lima
Director: General F. A. P. Jacobo Delmar
- R Dirección General de Hidrocarburos
Ministerio de Energía y Minas
Edificio Sol Gas
Esq. Av. Javier Prado y Aviación
Urb. San Borja, Lima
Director: Luis del Castillo
- R Petroleos del Perú (PETROPERU)
Paseo de la Republica No. 3361
San Isidro, Lima
Presidente: Juan F. Cassabonne
- R Dirección General de Minería
Ministerio de Energía y Minas
Urb. San Borja, Lima
Director General: Luis Gonzales Cacho
Minister of Energy and Mines:
Juan Inchaustegui Vargas

PHILIPPINES, THE



(See reference map IX)

- G Philippine Institute of Volcanology
National Science and Technology Authority
Hizon Building, Quezon Avenue
Quezon City
Director: R. S. Punongbayan
- G National Resources Management Center
Triumph Building
Quezon Avenue
Quezon City
Director: Celso Roque
- G Philippine Atmospheric Geophysical, and
Astronomical Services Administration
Quezon City Development Bank Building
1424 Quezon Avenue
Quezon City 3008
Director: R. L. Kintanar
- G Ministry of Energy
P.O. Box 1031
Makati Commercial Center
Makati, Metro Manila
Minister: G. Z. Velasco
- G Philippine Atomic Energy Commission
National Science and Technology Authority
Don Mariano Marcos Avenue
Diliman, Quezon City
Commissioner: Z. M. Bartolome
- G Bureau of Energy Development
Ministry of Energy
Merritt Road, Fort Bonifacio
Makati, Metro Manila
Director: Wenceslao de la Paz
- G,R Bureau of Mines and Geosciences
P.O. Box 1595
Pedro Gil Street
Manila 2801
Director: J. C. Fernandez
Chief, Geological Survey Division:
Dr. Guillermo Balse

- H National Power Corporation
NPC Complex
Quezon Blvd. Extension
Corner BIR Road, East Triangle
Diliman, Quezon City
President: G. Y. Itchon
- H Ministry of Public Works and Highways
Bonifacio Drive
Port Area, Manila
Minister: Jesus Hipolito
- H National Irrigation Administration
National Irrigation Administration Building
Epifanio Delos Santos Avenue
Quezon City, Metro Manila
Administrator: Cesar L. Tech
- H National Water Resources Council
National Irrigation Administration Building
Epifanio Delos Santos Avenue
Quezon City 3008
Executive Director: Angel A. Alejandrino
- C Bureau of Coast and Geodetic Survey
421 Barraca Street
Binondo, Manila 2807
Director: A. P. Ventura

POLAND



(See reference map V)

- G Główny Instytut Górnictwa
[Central Mining Institute]
Plac Gwarków 1
40-951 Katowice
Director: Dr. Jozef Pazdziora
- G,H,R Centralny Urząd Geologii
[Coordinative and Administrative Body]
ul. Jasna 6
00-013 Warszawa
President: Dr. Zdziaslaw Dembowski
- G,R Instytut Górnictwa Naftowego i Gazownictwa
[Institute of Petroleum]
ul. Lubicz 25a
31-503 Kraków
Director: Prof. Józef Raczkowski
- G Instytut Nauk Geologicznych PAN
Al. Zwirki i Wigury 93
02-089 Warszawa
Director: Prof. Maria Borkowska
- G Zakład Oceanologii PAN
ul. Powstańców Warszawy 55
81-967 Sopot
Director: Prof. Czeslaw Druet
- G Muzeum Ziemi PAN
Al. Na Skarpie 20/26
00-488 Warszawa
Director: Dr. Krzysztof Jakubowski
- G,H,C,R Instytut Geologiczny
ul. Rakowiecka 4
00-975 Warszawa
Director: Prof. Wacław Ryka
- H Instytut Meteorologii i Gospodarki Wodnej
[Institute of Meteorology and Water Management]
ul. Podlesna 61
01-673 Warszawa
Director: Dr. Maria Cetnarowicz
- C Główny Urząd Geodezji i Kartografii
[Coordinative and Administrative Body]
ul. Jasna 2/4
00-013 Warszawa
President: Prof. Zdzislaw Adamczewski
- C Instytut Geodezji i Kartografii
ul. Jasna 2/4
00-013 Warszawa
Director: Prof. Bogdan Ney
- C Instytut Geografii i
Przestrzennego
Zagospodarowania PAN
ul. Krakowskie Przedmieście 30
00-325 Warszawa
Director: Prof. Jerzy Kastrowicki
- G Zakład Paleobiologii PAN
Al. Zwirki i Wigury 93
02-089 Warszawa
Director: Prof. Halszka Osmolska
- G Instytut Geofizyki PAN
ul. Pasteura 3
02-093 Warszawa
Director: Prof. Jerzy Jankowski

PORTUGAL



(See reference map V and VII)

- G Direccão-Geral de Geologia e Minas
Ministerio da Indústria e Energia
Rua António Enes, 5
1000 Lisboa
Director: Dr. Alcides Rodrigues Pereira

- G Serviços Geológicos de Portugal
Rua da Academia de Ciências, 19-2º
1200 Lisboa
Director: Dr. Delfim de Carvalho

- G,H Laboratório Nacional de Engenharia Civil
Ministério de Equipamento Social
Avenida do Brasil, 101
1799 Lisboa Codex
Director: Eng. Júlio Ferry Borges

- C Instituto Geográfico e Cadastral
Ministério das Finanças e do Plano
Praça da Estrela
1200 Lisboa
Director-Geral: Eng. Rui Henriques Galeano
Barata Pinto

- H Direccão-Geral dos Recursos e
Aproveitamentos Hidráulicos
Ministério do Equipamento Social
Rua de S. Mamede, 23
1100 Lisboa
Director-Geral: Eng. Adolfo Gonçalves

- H Portuguese Commission on International
Hydrologic Program
Ministério do Equipamento Social
Rua de S. Mamede, 23
1100 Lisboa
President: Eng. Adolfo Gonçalves

- R Ministério da Qualidade de Vida
Rua Prof. Gomas Teixeira
1300 Lisboa
Minister: Dr. António d'Orey Capucho

- R Ministério da Indústria e Energia
Rua da Horta Seca, 14
1200 Lisboa
Minister: Prof. Dr. José Veiga Simão

QATAR



(See reference map VI)

- G,H,C Industrial Development Technical Center
(IDTC)
P.O. Box 2599
Doha
Director: Said Mishal

- H Water Resources Section
Integrated Water and Land Use Project
P.O. Box 1967
Doha
Chief: Mohamed Abdul Wahab

- H Food and Agriculture Organization
United Nations Development Program
P.O. Box 3237
Doha
Chief Technical Advisor: John Pike

- R,H,C Department of Petroleum Affairs
Ministry of Finance and Petroleum
P.O. Box 83
Doha
Director: Abdullah Sallat

REUNION

(No recent information)



(See reference map VII)

- G Services des Travaux Publics
St. Denis

ROMANIA



(See reference map V)

- G Ministerul Geologiei
Str. Mendeleev no. 36-38
Bucharest
Minister: Ioan Folea
- G Institutul de Geologie si Geofizică
Str. Caransebes no. 1
Sector 7, Bucharest
Director: Iosif Bercia
- G Centrul de Fizica a Pamintului si Seismologie
Platforma Nationala Magurele
Bucharest
Director: Ion Cornea

- G Comisia Romania pentru Activitati Spatiale
[Remote Sensing]
Str. Roma 32-34
Bucharest
President: Constantin Teodorescu

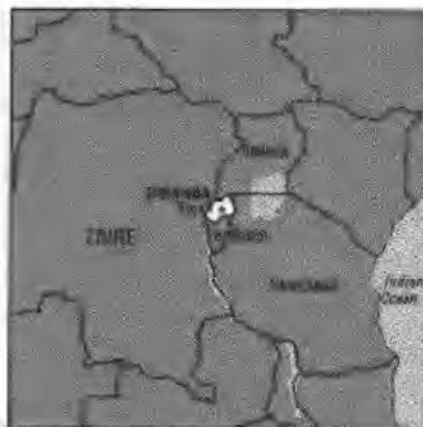
- G,C Institutul de Geografie si Geologie
Str. Dimitrie Racovitá no. 9
Bucharest
Director Professor: Gratián Ceoffică
Scientific Director: Petre Ghistescu

- H Institutul de Meteorologie si Hidrologie
Sos, Bucuresti-Ploiesti
Bucharest
Director: Constantin Diaconu

- R Ministerul Minelor
Str. Mendeleev no. 36-38
Bucharest
Minister: Ion Lazarescu

- R Ministerul Petrolului
Calea Victoriei no. 109
Bucharest
Minister: Gheorghe Vlad

RWANDA

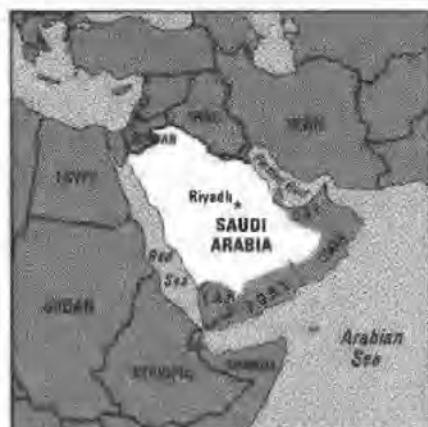


(See reference map VII)

- G,R,C Ministère des Ressources Naturelles
B.P. 413
Kigali
Minister: M. D. Iyamuremye
Director General, Service des Ressources
Naturelles: Casimir Karangwa
- Director: Division de la Cartographie:
T. Bizimungu
- Director General, Service des Mines et Carrieres:
P. Mahungiro
- Director, Mining Research: I. Kifnir

- H Ministère de l'Agriculture et de l'Elevage
B.P. 621
Kigali
General Director, Rural Engineering and
Conservation of Soils: A. Musema-Uwinana

SAUDI ARABIA



(See reference map VI)

- G,R Ministry of Petroleum and Mineral Resources
Deputy Ministry for Mineral Resources
P.O. Box 2880
Jiddah
Deputy Minister for Mineral Resources:
Ghazi Sultan
- G University of Petroleum and Minerals
Department of Earth Science
P.O. Box 144, Dhahran International Airport
ATTN: Box 287, UPM
Dhahran
Chairman: Adnan M. Miazay
- G,H University of Petroleum and Minerals
P.O. Box 144, Dhahran International Airport
ATTN: Box 274, UPM
Dhahran
Rector of the University: Dr. Bakr A. Bakr
- G King Abdul Aziz University
Faculty of Earth Sciences
P.O. Box 1450
Jiddah
Dean: Dr. Abdul Razak Bakr
- C Ministry of Petroleum and Mineral Resources
Aerial Survey Department
P.O. Box 247
Riyadh
Director General: Soliman Saleh Al-Robaishy

- H Saline Water Conservation Corporation
P.,O. Box 5968
Riyadh
Governor: Dr. Abdullah Mohanmad Al-Ghulaiqa
- H Ministry of Agriculture and Water
Water Resources Development Department
P.O. Box 478
Riyadh
Director: Mustafa Noory
- R Ministry of Petroleum and Mineral Resources
P.O. Box 247
Riyadh
Minister: Ahmad Zaki Yamani

SENEGAL



(See reference map VII)

- G Direction des Mines et de la Géologie
Ministère du Développement Industriel
Route de Ouakam
B.P. 1238
Dakar
Director: Babacar Faye
- G Office de la Recherche Scientifique et Technique
d'Outre-Mer (ORSTOM)⁹
Route des Peres Maristes-Hann
B.P. 1386
Dakar
Director: Bernard Dalmayrac
- G Centre de Géophysique
Office de la Recherche Scientifique et Technique
d'Outre-Mer (ORSTOM)⁹
B.P. 50
M'Bour
Director: Bernard Dalmayrac

⁹French research organization; no governmental affiliation.

G Bureau de Recherches Géologiques et Minières
(BRGM)⁹
7, rue Mermoz
B.P. 268
Dakar
Director: Remy Delafosse

C Institut Géographique National (IGN)
7, rue Mermoz
B.P. 4016
Dakar
Director: Gilbert Durieux

C Service Géographique du Senegal
14, rue Victor Hugo
B.P. 740
Dakar
Director: Serigne M'Baye Thiam

H Direction de l'Hydraulique Urbaine et Rurale
Ministère de l'Équipement
B.P. 2014
Route des Peres Maristes
Dakar
Director: Bocar Cisse

G Institut Fondamental d'Afrique Noire (IFAN)
Université de Dakar
B. P. 206
Dakar
Director: Amar Samb

R Centre d'Études et de Recherches sur les Énergies
Renouvelables (CERER) - Hann
Secrétariat d'État à la Recherche Scientifique et
Technique
B. P. 476
Dakar
Director: Djibril Fall

R Direction de la Météorologie Nationale (DMN)
Ministère de l'Équipement
Aéroport de Dakar-Yoff
B.P. 8257
Dakar
Director: Dr. Mansour Seck

R PETROSEN
25, Avenue Georges Pompidou
B. P. 2076
Dakar
Director: Samba Diouf

SIERRA LEONE

(No recent information)



(See reference map VII)

G Geological Survey Division
Ministry of Lands, Mines, and Labor
New England, Freetown
Director: A. H. Gabiri

H Water Resources Division
Ministry of Energy and Power
Leone Building, Siaka Stevens Street
Freetown
Chief Engineer: I. S. Kabia

C Surveys and Land Division
Ministry of Lands and Mines, and Labor
New England, Freetown
Director: E. A. Redwood-Sawyer

SINGAPORE



(See reference map IX)

G Public Works Department
Structural Design and Investigation Branch
Ministry of National Development
10th Floor National Development Building
Maxwell Road
Singapore 0106
Director of Public Works: Yap Neng Chew

G,H Science Center
 Science Center Building
 Science Center Road
 Singapore 2260
 Scientific Officer (Physical Sciences): Tey Mui Lee

C Head Mapping Unit
 Ministry of Defense
 Dover Road Camp 1
 Dover Crescent
 Singapore 0513
 Head: Yuen See Wah

C Land Surveyors Board
 Ministry of Law
 3d Floor, National Development Building
 Maxwell Road
 Singapore 0106
 Chief Surveyor: Kwah Kheng Swee

H Public Utilities Board
 Water Department
 PUB Building
 Somerset Road
 Singapore 0923
 Chief Water Engineer: Owen Liu (Ag)

R Economic Development Board
 9th Floor, World Trade Center
 Telok Blangah Road
 Singapore 0409
 Chairman: P. V. Hwang

SOLOMON ISLANDS

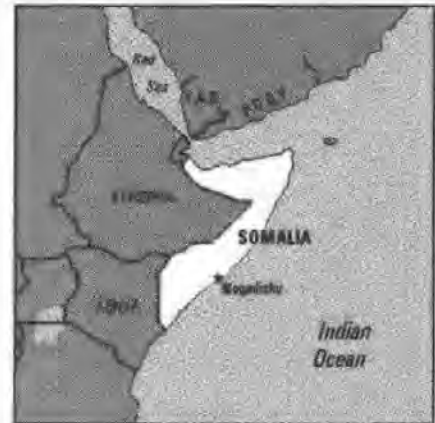


(See reference map K)

G Ministry of Natural Resources
 Geology Department
 P.O. Box G24
 Honiara, Guadalcanal
 Chief Geologist: B. Hackman

G,R Geology Division
 Ministry of Lands, Energy and Natural Resources
 Honiara, Guadalcanal
 Chief Geologist: S. Danitofea

SOMALIA



(See reference map VII)

G,H Geological Survey Department
 Ministry of Minerals and Water Resources
 P.O. Box 744
 Mogadishu
 Director: Mohamed Said Abdi

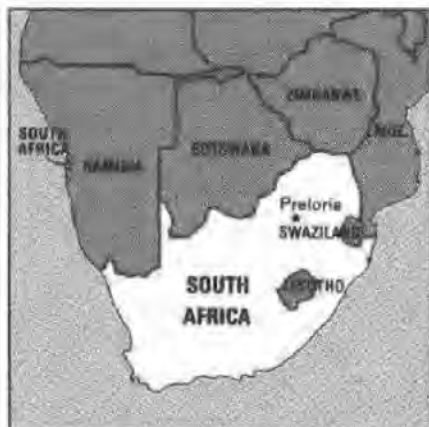
H Hydrogeological Department
 Ministry of Minerals and Water Resources
 P.O. Box 744
 Mogadishu
 Director: Mohamed Yusuf Awale

H Hydrogeological Department
 Water Development Agency
 P.O. Box 525
 Mogadishu
 General Manager: Khalif Haji Farah

H Hydrology Department
 Ministry of Agriculture
 Mogadishu
 Director: Ibrahim Muse

C Survey and Mapping Department
 Ministry of Defense
 P.O. Box 24
 Mogadishu
 Chief: Colonel Ibrahim Elmi Gelle

SOUTH AFRICA



(See reference map VII)

- G Magnetic Observatory
(Geomagnetism, Seismology)
Council for Scientific Research (CSIR)
P.O. Box 32
Hermanus, Cape Province
7200
Director: Dr. G. J. Kuhn
- G,H Geological Survey of Southern Africa
223 Visagie Street
Pretoria
0002
(Private Bag X112, Pretoria, 00001)
Director: L. N. J. Engelbrecht
- C Director Surveys and Mapping
Private Bag
Mowbray, Cape Town
7700
Chief Director: E. Van der Spuy
- H National Institute for Water Research
Council for Scientific and Industrial Research
(CSIR)
P.O. Box 395
Pretoria
0001
Chief Director: Dr. G. G. Cilliers
- H Hydrological Research Institute
Department of Environment Affairs
Patterson Building
Schoeman Street
Pretoria
00002
(Private Bag X313, Pretoria, 0001)
Director: E. Braune
- R Minerals Bureau
Queensbridge Buildings
60 Juta Street
(Private Bag X4)
Braamfontein
2017
Chief Director: Dr. P. J. Hugo
- R South African Department of Industries,
Commerce and Tourism
Legal and General Building
Cor. Pretorius and Prinsloo Streets
(Private Bag X84)
Pretoria
0001
Minister: Dr. D. J. De Villiers
- R Department of Mineral and Energy Affairs
P.O. Box 616
Pretoria
0001
Minister: P. T. C. Du Plessis
- H Bloemfontein University
Institute for Ground Water Studies
P.O. Box 339
Bloemfontein
9300
Director: Prof. F. D. I. Hodgson
- G Grahamstown University
P.O. Box 94
Grahamstown
6140
Head of Geography: Dr., Andrew Stone
- G Natal University
P.O. Box 375
Pietermaritzburg
3205
Head of Geology: Prof. R. E. Schulze
Head of Geography: Prof. J. Hank

SOVIET UNION



(See reference map VIII)

- G Geology Scientific Research Institute [All-Union] (VSEGEI)
Sredniy Prospekt 71
199026 Leningrad
Director: A. I. Zhamoyda
- G Institute of Geology
Akademiya Nauk USSR
109017 Moscow ZH-17
Pyzhevskiy Pereulok 7
Director: P. P. Timofeyev
- G Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskovo
Akademiya Nauk USSR
117975 GSP-1 Moscow V-334
Vorob'yevskoye Shosse 47-A
Director: V. L. Barsukov
- G Institute of Earth Physics imeni O. Yu. Shmidta
Akademiya Nauk USSR
123810 Moscow D-242
Bolskaya Gruzinskaya Ulitsa 10
Director: M. A. Sadovskiy
- G Department of Geology, Geophysics, and Geochemistry
Akademiya Nauk USSR
117901 GSP-1 Moscow V-71
Leninskiy Prospekt 14
Academician Secretary: B. S. Sokolov
- G Institute of the Geology of Ore Deposits, Petrography, Mineralogy and Geochemistry,
Akademiya Nauk USSR
109017 Moscow ZH-17
Staromonetnyi Pereulok 35
Director: F. V. Chukhrov
- G Institute of Lithosphere
Akademiya Nauk USSR
109180 Moscow ZH-180
Staromonetnyi Pereulok 22
Director: N. A. Bogdanov
- G Mineralogical Museum imeni A. E. Fersmana
Akademiya Nauk USSR
117071 Moscow V-71
Leninskiy Prospekt 18
- G Department of Oceanology, Physics of the Atmosphere and Geography
Akademiya Nauk USSR
117901 Moscow V-71
Leninskiy Prospekt 14
Academic Secretary: L. M. Brekhovskikh
- G Institute of Oceanology imeni P. P. Shirshova
Akademiya Nauk USSR
117218 Moscow V-218
Ulitsa Krasikova 23
Director: A. S. Monin
- G Institute of Vulcanology
Far East Scientific Center
Akademiya Nauk USSR
683603 Petropavlovsk
Kamchatskiy, Bul'var Piyppa 9
Director: S. A. Fedotov
- G Institute of Geology and Geophysics of the Siberian Department
Akademiya Nauk USSR
630090 Novosibirsk 90
Universitetskiy Prospekt 3
Director: A. A. Trofimuk
- G Institute of Permafrost Studies
Siberian Department
Akademiya Nauk USSR
677010 Yakutsk 10
Director: P. I. Melnikov
- G Institute of the Earth's Crust
Siberian Department
Akademiya Nauk
664033 Irkutsk 33
Ulitsa Lermontova 128
Favors Kovo Ulitsa 1
Director: N. A. Logachev
- G Ministry of Geology of the USSR
Moscow 123242
Bolshaya Gruzinskaya, Ulitsa 4/6
Minister: Ye. A. Kozlovskiy
- H State Committee for Hydrometeorology and Environmental Control
Akademiya Nauk USSR
Pereulok Pavlika Morozova 12
Moscow D-376
Director: Y. A. Ivanov

H Institute of Hydrodynamics imeni M. A. Lavrent'yev
Siberian Department
Akademiya Nauk USSR
630090 Novosibirsk 90
Prospekt Nauki 15
Director: L. V. Ovsyannikov

H Institute of Water Problems
Akademiya Nauk USSR
103064 Moscow K-64
Sadovaya Chernogryazckaya 13/3
Director: G. V. Voropayev

C Main Administration for Geodesy and Cartography (GUCK)
Applied Geodesy SRI, Novosibirsk
NII Prikladnoy Geodezii
Director: I. T. Antipov

SPAIN



(See reference map V and VII)

G Servicio de Geología
Ministerio de Obras Públicas y Urbanismo
Avenida de Portugal, 81
Madrid 11
Director: Clemente Sáenz Rídruejo

G Empresa Nacional ADARO de Investigaciones Mineras, S.A.
Serrano, 116
Director General: Santiago Navarro Bayo

G Instituto Geológico y Minero de España
Ríos Rosas 23
Madrid 3
Director: José Enrique Azcárate Martín

G Ministerio de Industria y Energía
Paseo de la Castellana, 160
Madrid 16

G Instituto de Geología
José Gutiérrez Abascal, 2
Madrid 6
Director: Vicente Araña Saavedra

G Instituto de Investigaciones Geológicas "Jaime Almera"
Alcarria, s/n
Barcelona 28
Director: Prof. Angel López Soler

G Instituto de Geología Económica
Facultad de Ciencias Geológicas
Universidad Complutense
Madrid 3
Director: José Ramón Peláez Pruneda

G Departamento de Investigaciones Geológicas
Universidad de Granada
Facultad de Ciencias
Granada
Director: Prof. Juan Antonio Vera Torres

G Departamento de Investigaciones Geológicas
Universidad de Oviedo
Laboratorio de Geología
Escuela Superior de Minas
Independencia 13
Oviedo
Director: José Antonio Martínez Álvarez

G Departamento de Investigaciones Geológicas
Universidad de Salamanca
Facultad de Ciencias
Salamanca
Director: Prof. Luis Carlos García de Figuerola

H Coordinación de Hidrología
Comisaría Central de Aguas
Nuevos Ministerios
Madrid 3
Chief: Ignacio de Jove Ramírez

H Instituto de Hidrología
Paseo Bajo Virgen del Puerto, 3
Madrid 5
President: Rafael Heras Rodríguez

C Dirección General del Instituto Geográfico Nacional
General Ibáñez Ibero, 3
Madrid 3
Director General: Julio Morencos Tevar

C Real Sociedad Geográfica
Valverde 22
Madrid 13

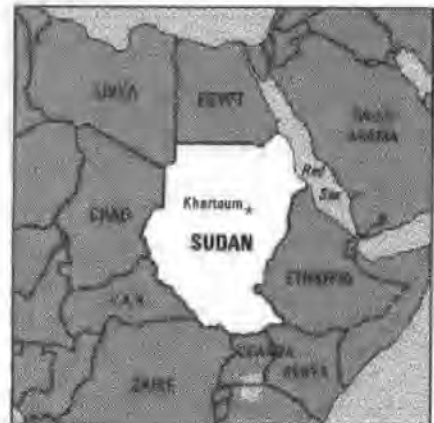
SRI LANKA



(See reference map VIII)

- G Geological Survey Department
48 Sri Jinaratna Road
Colombo 2
Director: D. J. A. C. Hapuarachchi
- R State Mining and Mineral Development Corporation
63 Elvitagala Mawatha
Colombo 8
Chairman: H. Dissanayake
- H Hydrology Section
Irrigation Department
P.O. Box 1138
Colombo 7
Chief Engineer: N. M. G. Navaratne
- H Water Resources Board
2A Gregory's Avenue
Bagatelle Road
Colombo 7
Chairman: Gamini Kannangara
- C Surveyor-General's Office
Kirula Road
Colombo 5
Surveyor-General: S. D. F. C. Nanayakkara
- R Ceylon Mineral Sands Corporation
167 Sri Vipulasena Mawatha
Colombo 10
Chairman: R. S. Sirisena
- R Ceylon Petroleum Corporation
113 Galle Road
Colombo 3
Chairman: Daham Wimalasena

SUDAN



(See reference map VII)

- G,R Geological and Mineral Resources
Ministry of Energy and Mining
Geological Survey Department
P.O. Box 410
Khartoum
Director: Abdalla Hassan Ishag
- H Hydrology Division
Ministry of Agriculture and Irrigation
Niles Waters Department
P.O. Box 878
Khartoum
Director: Isam Mustafa
- H Rural Water Administration
Ministry of Energy and Mining
P.O. Box 2087
Khartoum
Director General: Khairalla Mahgoub
- C Ministry of Internal Affairs
Survey Department
P.O. Box 306
Khartoum
General Director: Dafalla Salih

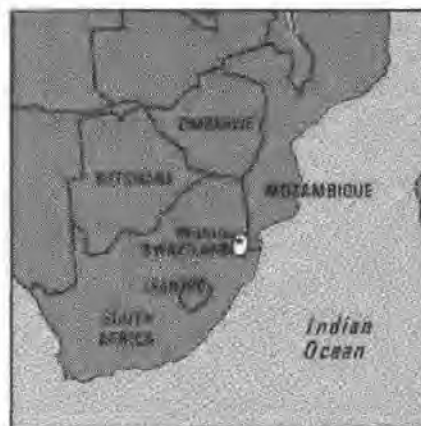
SURINAME



(See reference map IV)

- G Geologisch Mijnbouwkundige Dienst
Kleine Waterstraat 2-6
Paramaribo
Director: L. de Rooy
- H Water Supply Service
Ministry of Natural Resources and Energy
Kleine Combeweg 15
Paramaribo
Head: E. Tsai Meu Cheong
- H Hydrologic Research Division
Ministry of Public Works, Telecommunication
and Architecture
Verlengde Coppenamestraat
Paramaribo
Head: B. Campens
- C Centraal Bureau Luchtkartering
P.O. Box 971
Dr. Sophie Redmondstraat 131
Paramaribo
Head: R. H. Wong Fong Sang

SWAZILAND



(See reference map VII)

- G,H,R Geological Survey and Mines Department
P.O. Box 9
Mbabane
Director: A. Dlamini
- C Department of Surveys
Ministry of Works, Power, and Communications
P.O. Box 58
Mbabane
Surveyor General: G. Bishop

SWEDEN



(See reference map V)

- G Statens Vag-och Trafikinstitut (VTI)
Geologiska Gruppen
S-581 01 Linköping
Director General: Hans Sandebring
- G Statens Geotekniska Institut (SGI)
S-581 01 Linköping
Director: Jan Hartlén

- G,H,C,R Sveriges Geologiska Undersökning (SGU)
 [The Geological Survey of Sweden]
 Box 670
 S-751 28 Uppsala
 Director General: Arne Wesslén
- C Statens Lantmäteriverk (LMV)
 [The National Landsurvey of Sweden]
 S-801 12 Gävle
 Director General: Sten Wickbom
- H Sveriges Meteorologiska och Hydrologiska
 Institut (SMHI)
 Box 923
 S-601 19 Norrköping
 Director General: Lars Ag

SWITZERLAND

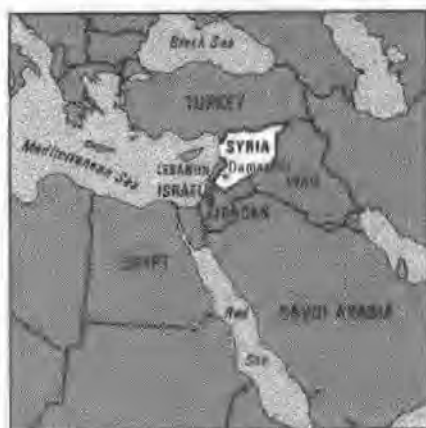


(See reference map V)

- G,H Geologische Kommission der Schweizerischen
 Naturforschenden Gesellschaft
 Birnmannsgasse 9
 4055 Basel
 Director: H. Fischer
- G Geologisches Institut
 Eidgenössische Technische Hochschule
 ETH-Zentrum
 8092 Zürich
 Head: Prof. Dr. Rudolf Truempy
- H Eidgenössische Gewässerschutzkommission
 [Federal Commission for Water Protection]
 Sekretariat: Bundesamt für Umweltschutz
 Hallwylstrasse 4
 3003 Bern
 President: Marcel Blanc
- H Bundesamt für Wasserwirtschaft
 [Federal Office for Water Economy]
 Hallwylstrasse 4
 3003 Bern
 Director: Dr. Rodolfo Pedroli

- C Bundesamt für Landestopographie
 [Federal office for Topographical Survey]
 Seftigenstrasse 264
 CH-3084 Wabern
 Director: Francis Jeanrichard
- R Bundesamt für Energiewirtschaft
 [Federal Energy Agency]
 Kapellenstrasse 14
 3011 Berne
 Director: E. Kiener

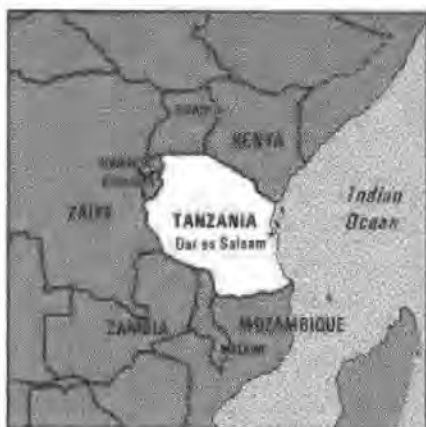
SYRIA



(See reference map VI)

- G General Establishment of Geology and
 Mineral Resources
 Ministry of Petroleum
 P. O. Box 7645
 Khatib Street, Adawi
 Damascus
 Director General: Dr. Anwar Iman
- H Irrigation and Water Resources Department
 Ministry of Public Works and Hydraulic Resources
 Al Furat Street
 Damascus
 Director: Dr. Nizar Mir
- C Service Géographique de l'Armée
 Ministry of Defense
 P.O. Box 3094
 Damascus
 Director General: Eng. Abd Al-Mu'cen Safi
- C National Remote Sensing Center
 Ministry of Electricity
 Sultan Salim St.
 Minister: Dr. Eng. Ahmad Omar Yussef

TANZANIA



(See reference map VII)

- G University of Dar es Salaam
under the Ministry of National Education
P.O. Box 35091
Dar es Salaam
Vice-Chancellor: Nicholas A. Kuhanga
- G Geology
Ministry of Minerals
P.O. Box 903
Dodoma
Commissioner for Geology: James K. L. Saria
- C Survey and Mapping Division
Ministry of Lands, Housing and Urban
Development
P.O. Box 9201
Dar es Salaam
Commissioner for Survey and Mapping:
E. N. Njau
- C Mapping Production
Ministry of Lands, Housing and Urban
Development
P.O. Box 9301
Dar es Salaam
Senior Surveyor: O. Andrew
- H Hydrological Section
Ministry of Minerals
P.O. Box 903
Dodoma
Principal Mining Engineer: A. K. Muze
Principal Mineral Dressing Engineer: S. J.
Mohamed
Principal Petrologist: J. N. Mushi
Principal Geologist-Mineral Exploration:
W. S. Lyimo
Principal Geologist: A. M. Mwakinga

- R Mines
Ministry of Minerals
P.O. Box 2000
Dar es Salaam
Commissioner for Mines: A. J. Zidikheri
- R Tanzania Petroleum Development
Corporation
Ministry of Water and Energy
P.O. Box 2774
Dar es Salaam
General Manager: Sylvester Barongo

THAILAND



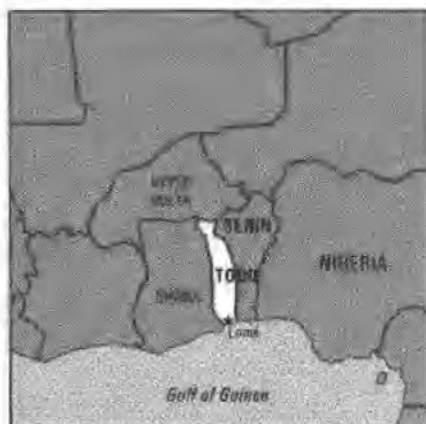
(See reference map IX)

- G,H Royal Forestry Department
Ministry of Agriculture and Cooperatives
Paholyothin Road
Bangkok 10900
Director-General: Pong Sono
- G,H Watershed Management Division
Royal Forest Department
Ministry of Agriculture and Cooperatives
Paholyothin Road
Bangkok 10900
Director: Udhai Chanphaka
- G,H Meteorological Department
Ministry of Communications
612 Sukhumvit Road
Bangkok 10110
Director-General: Dr. Boonsorn Boonsukha
- G Agrometeorology Division
Meteorological Department
Ministry of Communications
612 Sukhumvit Road
Bangkok 10110
Director: Sr. Lt. Manas Thummanond, Rtn

H	Hydrometeorology Division Meteorological Department Ministry of Communications 612 Sukhumvit Road Bangkok 10110 Director: Sr. Lt. Jate Chailapo, Rtn	C	Topographical Survey Division Royal Irrigation Department Ministry of Agriculture and Cooperatives Tivanondh Road, Amphoe Pakkred Nonthaburi 11120 Director: Phyoool Chantasiro
G	Climatology Division Meteorological Department Ministry of Communications 612 Sukhumvit Road Bangkok 10110 Director: Sr. Lt. Sukit Yensuang	G	Soil and Geology Division Royal Irrigation Department Ministry of Agriculture and Cooperatives 811 Samsen Road Bangkok 10300 Director: Prasarn Leelasorn
G	Studies and Research Division Meteorological Department Ministry of Communications 612 Sukhumvit Road Bangkok 10110 Director: Lt. Cdr. Sumeth Hinsheran, Rtn.	G	Research and Laboratory Division Royal Irrigation Department Ministry of Agriculture and Cooperatives Tivanondh Road, Amphoe Pakkred Nonthaburi 11120 Director: Jumsak Tejasen
R,G,H,C	Department of Mineral Resources Ministry of Industry Rama VI Road Bangkok 10600 Director-General: Sivavong Changkasiri	G,H	Department of Public Works Ministry of Interior Pan Fah Bridge, Larnluang Road Bangkok 10100 Director-General: Tongchul Singhakul
G,C	Geological Survey Division Department of Mineral Resources Rama VI Road Bangkok 10600 Director: Thawat Japakasetr	G	Research and Survey Section Construction Division Department of Public Works Ministry of Interior Pan Fah Bridge, Larnluang Road Bangkok 10100 Chief: Prasop Krasaesindhu
R,G	Mineral Fuels Division Department of Mineral Resources Rama VI Road Bangkok 10600 Director: Prakong Polhan	H	Provincial Water Works Division Department of Public Works Ministry of Interior Pan Fah Bridge, Larnluang Road Bangkok 10100 Director: Wiyom Niyamanusorn
R	Economic Geology Division Development of Mineral Resources Rama VI Road Bangkok 10600 Director: Thawisak Danusawad	C	Royal Thai Survey Department Supreme Command Headquarters Ministry of Defense Rachinee Road Bangkok 10200 Director: Lt. Gen. Swasdi Pachimkul
H	Ground Water Division Department of Mineral Resources Rama VI Road Bangkok 10600 Director: Suwit Watanachan	C	National Research Council of Thailand Ministry of Science, Technology and Energy 196 Paholyothin Road Bangkok 10900 Secretary-General: Dr. Choopoi Swasdiyakorn
G,H,C	Royal Irrigation Department Ministry of Agriculture and Cooperatives 811 Samsen Road Bangkok 10300 Director-General: Sunthorn Ruanglek	C	Remote Sensing Division National Research Council of Thailand Ministry of Science, Technology and Energy 196 Paholyothin Road Bangkok 10900 Director: Suvit Vibulsreth
G,H	Hydrology Division Royal Irrigation Department Ministry of Agriculture and Cooperatives 811 Samsen Road Bangkok 10300 Director: Suthep Tingsabhat		

R	<p>Defense Energy Department Office of the Permanent Secretary of State Ministry of Defense 496 Phetburi Road Bangkok 10400 Director-General: Lt. Gen. Jirayute Kraisoraphong</p>	R,G	<p>Petroleum Exploration and Production Department Petroleum Authority of Thailand 14 Soi Yasooob, Vibhavadi Rangsit Road Bangkok 10900 Director: Preecha Supalak</p>
R	<p>Raw Material Exploration and Production Division Defense Energy Department Office of the Permanent Secretary of State Ministry of Defense 496 Phetburi Road Bangkok 10400 Chief: Col. Piroj Chuenpratum</p>	R	<p>Drilling and Production Division Petroleum Exploration and Production Department Petroleum Authority of Thailand 14 Soi Yasooob, Vibhavadi Rangsit Road Bangkok 10900 Chief: Maroot Mrigadat</p>
H	<p>Mekong Committee c/o ESCAP, United Nations Building Rajdamnoen Avenue Bangkok 10200</p>	R	<p>Petroleum Geology Division Petroleum Exploration and Production Department Petroleum Authority of Thailand 14 Soi Yasooob, Vibhavadi Rangsit Road Bangkok 10900 Chief: Prisdapunt Pojanapreecha</p>
C,H,G	<p>National Energy Administration Ministry of Science, Technology and Energy Kasatsuk Bridge Bangkok 10500 Secretary-General: Prapath Premmani</p>	G	<p>Geophysics Division Petroleum Exploration and Production Department Petroleum Authority of Thailand 14 Soi Yasooob, Vibhavadi Rangsit Road Bangkok 10900 Chief: Chalee Siriratanamongkol</p>
C,H,G	<p>Energy Investigation Division National Energy Administration Ministry of Science, Technology and Energy Kasatsuk Bridge Bangkok 10500 Director: Suwat Sanguanwongse</p>	G	<p>Land Development Department Ministry of Agriculture and Cooperatives Paholyothin Road Bangkok 10900 Director General: Anunt Komes</p>
C	<p>Surveying and Mapping Branch Energy Investigation Division National Energy Administration Ministry of Science, Technology and Energy Kasatsuk Bridge Bangkok 10500 Chief: Ararm Supakarn</p>	G	<p>Soil Survey Division Land Development Department Ministry of Agriculture and Cooperatives Paholyothin Road Bangkok 10900 Director: Samarn Panichapong</p>
H	<p>Hydrology Branch Energy Investigation Division National Energy Administration Ministry of Science, Technology and Energy Kasatsuk Bridge Bangkok 10500 Chief: Borom Somsub</p>		
G	<p>Engineering Geology Branch Energy Investigation Division National Energy Administration Ministry of Science, Technology and Energy Kasatsuk Bridge Bangkok 10500 Chief: Sompongs Sriphyak</p>		
R,G	<p>Petroleum Authority of Thailand 14 Soi Yasooob, Vibhavadi Rangsit Road Bangkok 10900 Governor: Dr. Tongchat Hongladaromp</p>		

TOGO



(See reference map VII)

- G,H Direction Générale des Mines, de la Géologie et du
Bureau National de Recherches Minières
B.P. 356
Lomé
Directeur: N'zoulou Péré
- G,H Département Hydro-géologie
Ministère des Mines de l'Energie, des
Ressources Hydrauliques et des Travaux
Publics
B.P. 356
Lomé
Chief: Comlanvi N. D'Almeida
- G Direction de la Pédologie
Ministère de l'Aménagement Rural
B.P. 1026
Lomé
Directeur: Koffi Lomko Allaglo
- G,H Office de la Recherche Scientifique
et Technique Outre-Mer Centre (ORSTOM),
Office de Lomé¹⁰
B.P. 375
Lomé
Directeur: Bernard Huguenin
- C Service Topographique
Ministère des Mines, de l'Energie, des Ressources
Hydrauliques et des Travaux Publics
B.P. 500
Lomé
Directeur: Issa-Gnon Gbarré

¹⁰French research organization; no governmental affiliation.

TONGA, KINGDOM OF



(See reference map X)

- G,C,H,R Ministry of Lands, Survey and Natural Resources
P.O. Box 5
Nuku'alofa
Superintendent: S. L. Tongiava

TRINIDAD AND TOBAGO

(No recent information)



(See reference map III)

- G,R Ministry of Energy and Energy-Based Industries
P.O. Box 96
Port-of-Spain, Trinidad
Permanent Secretary: G. H. Legall
Senior Geologist: John P. Scott
- H Water Resources Agency
P.O. Box 145
Port-of-Spain, Trinidad
Director: Elton Wyke

- C Lands and Surveys Department
Mapping and Control Section
2b, Richmond Street
Port-of-Spain, Trinidad
Director of Surveys: Peter Samuel

TUNISIA



(See reference map VII)

- G Office National des Mines
Département de Géologie
95 Avenue Mohamed V
Tunis
Director: Tijani Lejmi
- H Ministère de l'Agriculture
Division des Ressources en Eau
30 Rue Alain Savary
Tunis
Director: Ahmed Khouaja
- H Ministère de l'Agriculture
Direction des Etudes et Grands Travaux
Hydrauliques
30 Rue Alain Savary
Tunis
Director: Ameer Horchani
- G Office de la Topographie et de la Cartographie
Cité Olympique
Tunis
President Director General: Habib Amri
- R Entreprise Tunisienne des Activités Pétrolières
(ETAP)
11 Avenue Khereddine Pacha
Tunis
President Director General: Habib Lazreg
- R Office National des Mines
26 Rue d'Angleterre
Tunis
President Director General: Ali Attiya

- R Ministère de l'Économie Nationale
195 Rue de la Kasbah
Tunis
Director of Energy: Mohamed Sahbi M'rabet
- R,G Ministère de l'Économie Nationale
Direction des Mines et de la Géologie
7 Rue du Royaume d'Arabie Saoudite
Tunis
Director of Mines and Geology: Mohsen Zerelli

TURKEY



(See reference map VI)

- G,C,H Maden Tetkik ve Arama Enstitüsü
[Mineral Research and Exploration Institute]
Eskisehir Yolu Ustu-Ankara
Director General: M. Sitki Sancar
- H Devlet Suisleri Genel Mudurlugu
[State Hydraulid Works (DSI)]
Eskisehir Yolu-Yucetepe-Ankara
Director General: Sabahattin Sayin
- C T.C., M.S.B. Harita Genel Mudurlugu
[General Directorate of Turkish Mapping
Service]
Ministry of Defense
Cebeci-Ankara
Director General: General Sabri Delic
- R,G Petrol Ofisi Genel Mudurlugu
[Petroleum Administration]
Bestekar Sokak No. 18, Ankara
Yemishehir, Ankara
President: Ruhi Orbay
- R Enerji ve Tabii Kaynaklar Bakanligi
[Ministry of Energy and Natural Resources]
Bakanliklar-Ankara
Minister: Fahir Ilkel
- Imar ve Iskan Bakanligi
[Ministry of Reconstruction and Settlement]
Earthquake Research Institute
Deprem Arastirma Dairesi
Eskisehir Yolu-Ankara
Director: Oktay Ergundy

UGANDA



(See reference map VII)

- G Geological Survey and Mines Department
P.O. Box 9
Entebbe
Acting Commissioner: Saul Mboijana
- C Department of Lands and Surveys
P.O. Box 7061
Kampala
Commissioner: Paul Bakashabaruhanga
- H Ministry of Minerals and Water Resources
Water Development Department
P. O. Box 19
Entebbe
Acting Commissioner: E. A. Oryang

UNITED KINGDOM



(See reference map V)

- G Institute of Oceanographic Sciences
Wormley, Godalming
Surrey GU8 5UB
Director: A. S. Laughton

- G British Geological Survey
Exhibition Road
London, SW7 2DE
Deputy Director: P. A. Sabine

Overseas Division
Nieker Hill
Keyworth
Nottingham NG 12 5GG
Director: G. M. Brown

- G,C Directorate of Overseas Surveys
Foreign and Commonwealth Office
Kingston Road
Tolworth, Surbiton
Surrey KT5 9NS
Director: B. S. Surmston

- G The British Antarctic Survey
Madingley Road
Cambridge CB3 0ET
Director: R. M. Laws

- H Water Data Unit
Department of the Environment
Reading Bridge House
Reading RG1 8PS
Director: D. H. Newsome

- C Ordnance Survey
Ramsey Road
Maybush
Southampton SO9 4DH
Director General: Walter P. Smith

- C Directorate of Military Survey
Ministry of Defence
Elmwood Avenue
Feltham, Middlesex TW13 7AE
Director: Major-General E. W. Barton, MBE

- H Institute of Hydrology
Natural Environment Research Council
Maclean Building, Crowmarsh Gifford
Wallingford
Oxfordshire OX10 8BB
Director: J. S. G. McCulloch

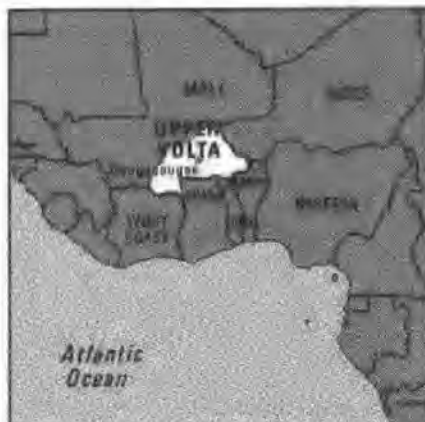
UNITED STATES OF AMERICA



(See reference map II)

- G U.S. Bureau of Mines (USBM)
2401 E. Street, NW
Washington, D.C. 20241
Director: Robert C. Horton
- G,C,H,R U.S. Geological Survey (USGS)
National Center
12201 Sunrise Valley Drive
Reston, Virginia 22092
Director: Dallas L. Peck
- C Defense Mapping Agency (DMA)
Building 56, Naval Observatory
Washington, D.C. 20305
Director: E. A. Wilkinson, Jr.
- C National Ocean Survey
National Oceanic and Atmospheric
Administration (NOAA)
Department of Commerce
Rockville, Maryland 20852
Administrator: John V. Byrne

UPPER VOLTA



(See reference map VII)

- G Bureau Voltaique de la Géologie et des Mines
B.P. 601
Ouagadougou
Director: Emile Gansonre
- H Direction de l'Hydraulique et de l'Equipe-
ment Rural
B.P. 330
Ouagadougou
Director: Victor Ouedraogo
- H Office de la Recherche Scientifique
et Technique Outre-Mer (ORSTOM)¹¹, Centre
Ouagadougou
B.P. 182
Ouagadougou
Director: Jacques Claude
- H Comité Inter-Africain d'Etudes Hydrauliques
(CIEH)
B.P. 369
Ouagadougou
Secretary-General: Mr. Hassan
- C Direction du Cadastre et Topographie
Service Topographique
Ministère des Finances et du Commerce
B.P. 7054
Ouagadougou
Director: Omar Traore

¹¹French research organization; no governmental affiliation.

URUGUAY



(See reference map IV)

- G Instituto Geológico del Uruguay
Hervidero 2853
Montevideo
Director: Coronel Mario E. Latorre

- G Instituto Nacional de Pesca (INAPE)
Constituyente 1497
Montevideo
Director: Ulises W. Perez

- H Direccion de Hidrografia
Ministerio de Transporte and Obras Publicas
Ciudadela 1414
Montevideo
Director: Capitan de Navio Tabare Estevez

- C Servicio Geográfico Militar
Avenida 8 de Octubre 3255
Montevideo
Director: Coronel Ivho R. Acuna

- C Direccion de Topografia
Ministerio de Transporte and Obras Públicas
Rincón 561 2d Piso
Montevideo
Director: Coronel Alberto Ortiz

- C Servicio de Hidrografia de la Marina
Capurpo 980
Montevideo
Director: Capitan de Navio James Coates

VANUATU



(See reference map X)

- G Geological Survey
British Residency
Port-Vila
Director: A. MacFarlane

- G Mineral Resources Department
B.P. 637
Port-Vila
Director: J. L. Saos

VENEZUELA



(See reference map IV)

- G Dirección de Investigaciones Geoanalíticas y
Tecnológicas
Edificio Guayana, Piso 1
Calle 10 - La Urbina
Caracas
Director: Dr. Ángel Fonseca A.

- G Fundación Venezolana de Investigaciones Seismológicas
Avenida Washington
Quinta Francinetti
Urb. San Bernardino
Caracas
Presidente: Dr. Alirio Bellizia
- G,R Dirección General Sectorial de Minas y Geología
Ministerio de Energía y Minas
Torre Oeste, Piso 4
Parque Central
Caracas
Director General: Dr. Marcial Merino Valery
- G,R Dirección de Minas
Dirección General Sectorial de Minas y Geología
Ministerio de Energía y Minas
Torre Oeste, Piso 6
Parque Central
Caracas
Director: Dr. Rafael Borges
- G,R Dirección de Geología
Dirección General Sectorial de Minas y Geología
Ministerio de Energía y Minas
Torre Oeste, Piso 4
Parque Central
Caracas
Director: Dr. F. Raúl García Jarpa
- G,R Consejo Consultivo de Directores de Servicios Geológicos de Latinoamérica
Torre Oeste, Piso 5
Parque Central
Caracas
- C Dirección de Cartografía Nacional
Edificio Camejo, Piso 2, Ofic. 230
Centro Simón Bolívar
Caracas
Director: Dr. José Clemente Pérez Orúa
- R Dirección General Sectorial de Hidrocarburos
Ministerio de Energía y Minas
Torre Oeste, Piso 12
Parque Central
Caracas
Director General: Dr. Jesús García Coronado

VIETNAM

(No recent information)



(See reference map IX)

- G Geologic Section
State Committee of Sciences
Hanoi
- G State Committee of Sciences
Station of Oceanography
Hanoi
- H Service Hydrometeorologique
4 rue Dang Thai Than
Hanoi
Directeur General: Tran Van An
- C Service Geographique Nationale
Ministere de la Defense Nationale
Dalat
Director: Nguyen Van Khai

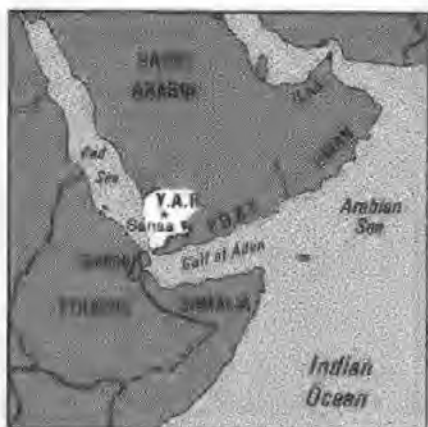
WESTERN SAMOA



(See reference map X)

- C Lands and Survey Department
Main Beach Road
P.O. Box 63
Apia
Director of Lands: Arthur P. Hunter
- H Apia Observatory
P.O. Box 52
Apia
Superintendent: L. Ionae

YEMEN, ARAB REPUBLIC

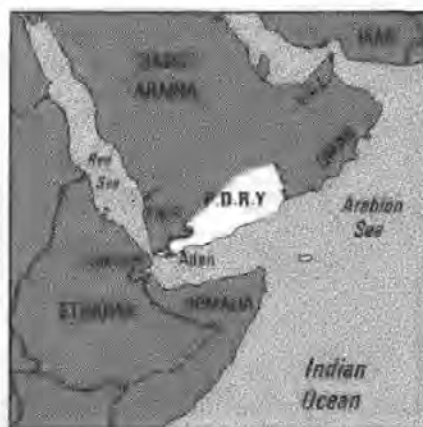


(See reference map VI)

- G Central Planning Organization
P.O. Box 175
Sanaa
- G,R Geological Authority
Yemen Oil and Mineral Resources Corporation
(YOMINCO)
P.O. Box 81
Sanaa
Director-General: Ali Jaber Alawi

- H Department of Hydrology (YOMINCO)
Sanaa
Director-General: Ali Jaber Alawi

YEMEN, PEOPLE'S DEMOCRATIC REPUBLIC OF



(See reference map VI)

- G Overseas Geological Surveys of London, England
c/o Aden Public Works Department
Aden
- G,H,C Ministry of Public Works
Khormaksar, Aden

YUGOSLAVIA



(See reference map V)

- G Zavod za geoloska i geofizicka istrazivanja
(GEOZAVOD) [Institute for Geological and
Geophysical Research]
48, Karadjordjeva
11000 Belgrade
Director General: Petar Vojnovic

G Institut za geoloska, geofizicka i rudarska istrazivanja nuklearnih i drugih mineralnih sirovina (GEOINSTITUT) [Institute for Geological, Geophysical and Mining Exploration of Nuclear and other Mineral Resources]
12, Rovinjska
11000 Belgrade
Director General: Radule Popovic
General Director for Research Coordination: Vladimir Saric

G OOUR za kompleksna geoloska istrazivanja - INDUSTRI-PROJEKT [Organization for Complex Geological Research]
88a, Savska Cesta
P.O. Box 334
41001 Zagreb 2
Director: Jelisaveta Molnar

G,H Institut za hidrogeologiju i hidrotehniku- (GEOINZINJERING) [Institute for Hydrogeology and Hydrotechnology]
3, Ustanicka
71000 Sarajevo
Director General: Stanko Celikovic

H Savezni hidrometeoroloski zavod [Federal Hydrometeorological Institute]
6, Bircaninova
P.O. Box 604
11000 Belgrade
Director: Mile Sikic

H "JAROSLAV CERNI" Institut za vodoprivredu [Institute for Development of Water Resources]
80, Jaroslava Cernija
11000 Belgrade
Director General: Milorad Miloradov

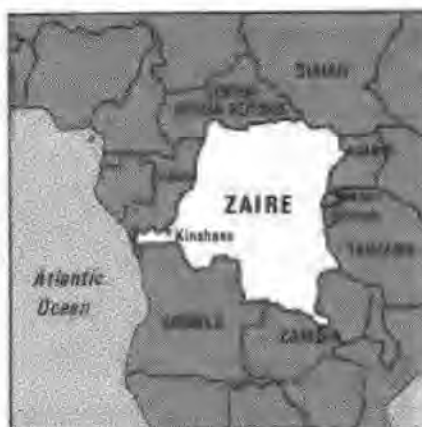
C Institut za kartografiju (GEOKARTA) [Institute for Cartography]
39, Bulevar Vojvode Misica
11000 Belgrade

G,R Institute za zemljotresno inzenjerstvo i inzenjersku seizmologiju (IZIIS) [Institute for Earthquake Engineering and Engineering Seismology]
P.O. Box 101
91000 Skopje
Director General: Jakim Petrovski

G,H,C,R Savezni zavod za medjunarodnu naucnu, prosvetnu, kulturnu i tehnicku saradnju (YUZAMS) [Federal Administration for International Scientific, Educational, Cultural and Technical Cooperation- FAISECTC]
29, Kosancev venac
11000 Belgrade
Director General: Miljenko Zrelec

ZAIRE

(No recent information)



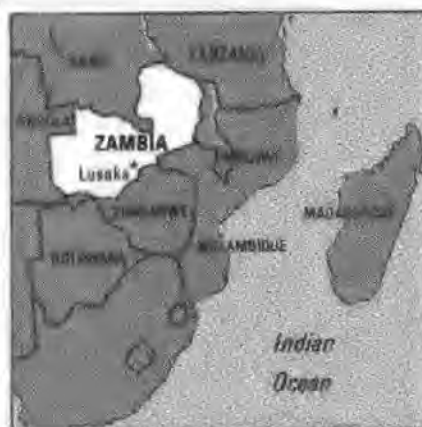
(See reference map VII)

G Service Géologique du Zaire
Ministry of Mines
B.P. 898
44 Avenue des Huileries
Kinshasa
Director: Mubiayi

H Regie des Voies Navigables
B.P. 3144
Kinshasa
Directeur: M. Ndombasi

C Institut Géographique du Zaire
106 Blvd du 30 Juin
B.P. 3086
Kinshasa
Director: Lubiku Lusense Belani

ZAMBIA



(See reference map VII)

G Geological Survey Department
Ministry of Mines
P.O. Box 50135
Lusaka
Acting Director: D. Green

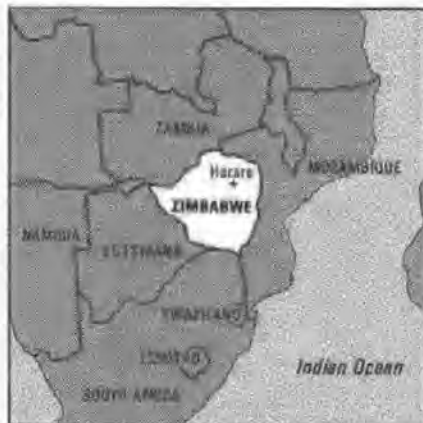
G,R Zambia Industrial and Mining Corporation,
Limited (ZIMCO)
Zimco House, Cairo Road
P.O. Box 30090
Lusaka
Director General: James Mapoma

G Mining Industry and Technical Services
Zambia Consolidated Copper Mines Limited
(ZCCM)
P.O. Box 10
Kalulushi
Manager: Dr. Silane Mwenechanya

C Survey Department
Ministry of Lands and Natural Resources
Mulungushi House
P.O. Box 50397
Lusaka
Surveyor General: Andrew J. Kownacki

H Water Affairs Department
Ministry of Agriculture and Water
Development
Mulungushi House
P.O. Box 50288
Lusaka
Director: C. R. W. Kayombo

ZIMBABWE



(See reference map VII)

G Department of Geological Survey
Ministry of Mines
P.O. Box 8039, Causeway
Harare
Director: E. R. Morrison

H Chief Hydrological Engineer
Ministry of Water Resources and Development
P.O. Box 8132, Causeway
Harare
Chief: J. C. Johnston

C Department of the Surveyor General
Ministry of Lands, Resettlement, and Rural
Development
P.O. Box 8099, Causeway
Harare
Surveyor General: R. S. Cole

TAIWAN

(No recent information)



(See reference map VIII)

G Chinese Petroleum Corporation
83 Chungwa Road
Taipei
Chairman: Jerome Hu

G Institute of Oceanography
National Taiwan University
1 Roosevelt Road, Section 4
Taipei
Director: Ju-Chin Chen

G Institute of Geology
National Taiwan University
1 Roosevelt Road, Section 4
Taipei
Director: Yuan Wang

G Institute of Geophysics
National Taiwan University
Chung Li, Taoyuan County
Chairman: Chieh-hou Yang

G Institute of Earth Sciences
Academia Sinica
P.O. Box 23-59
Taipei
Director: Yi-ben Tsai

G,C Central Geological Survey
P.O. Box 968
Taipei
Director: Tieh-liang Hsu

C	<p>Agriculture and Forstry Aerial Survey Team Taiwan Provincial Forestry Bureau 101-1, Ho Ping West Road, Section 2 Taipei Team Leader: Tse-lin Huang</p>	H	<p>Taiwan Power Company 39 Ho Ping East Road, Section 1 Taipei Chairman: Lan-Kao Chen</p>
C	<p>Combined Service Forces Ministry of National Defense Chieh Shou Hall, Chungking South Rd. Taipei Commander-in-Chief: To-nien Wang</p>	H	<p>Water Resources Planning Commission Ministry of Economic Affairs 2, Ning Po East Street Taipei Chairman: Hong-hsi Hsu</p>
H	<p>Taiwan Provincial Water Conservancy Bureau Nanking Road Taichung Director: Wen-hsiang Chen</p>	R,G	<p>Mining Research and Service Organization Industrial Technology Research Institute 1 Tun Hua South Road Taipei Director: Tah-tsung Feng</p>

MAJOR INTERNATIONAL ORGANIZATIONS

- | | | | |
|-------|---|-----|--|
| G | <p>American Association for the Advancement of Science (AAAS)
Section 5
1776 Massachusetts Avenue, NW
Washington, D.C. 20036 U.S.A.
Executive Secretary: William P. Carey</p> | G | <p>Commission for the Geological Map of the World (CGMW)
51, Boulevard de Montmorency
75016 Paris, France
President: J. Aubouin
Secretary General: F. M. Delany
Assistant Secretary General: O. Dottin</p> |
| G | <p>American Association of Petroleum Geologists (AAPG)
P.O. Box 979
Tulsa, Oklahoma 74101 U.S.A.
Executive Director: Fred A. Dix, Jr.</p> | G | <p>Association of Engineering Geologists (AEG)
P.O. Box 506
Short Hills, New Jersey 07078 U.S.A.
Executive Director: Noel M. Ravneberg</p> |
| G | <p>American Geological Institute (AGI)
4220 King Street
Alexandria, Virginia 22302 U.S.A.
Executive Director: A. G. Unklesbay</p> | G | <p>Centre International pour la Formation et les Echanges Géologiques (CIFEG)
103 rue de Lille
75007 Paris, France
Director-General: Cornelius A. Kogbe</p> |
| G | <p>American Geophysical Union (AGU)
2000 Florida Avenue, NW
Washington, D.C. 20009 U.S.A.
Executive Director: A. F. Spilhaus, Jr.</p> | G,C | <p>Circum-Pacific Council for Energy and Mineral Resources
Halbouty Center
5100 Westheimer Road
Houston, Texas 77056 U.S.A.
Chairman: Michel T. Halbouty</p> |
| G | <p>Association of Geoscientists for International Development (AGID)
c/o Asian Institute of Technology
G.P.O. Box 2754
Bangkok 10501
Thailand
Secretary General: Tan Bock Kang</p> | G | <p>Centro Regal de Sismologia para America del Sur (CERESIS)
Apartado 11363
Lima 14, Peru
Director: Alberto A. Giesecke M.</p> |
| G,H,C | <p>Arctic Institute of North America (AINA)
University of Calgary
University Library Tower
2920 24th Avenue, NW
Calgary, Alberta
Canada T2N 1N4
Executive Director: John S. Tener</p> | R | <p>Eastern and Southern African Mineral Resources Development Centre (ESAMRDC)
P.O. Box 1250
Dodoma
Tanzania
Director General: M. M. Shumburo</p> |
| G | <p>Centre Sismologique Europeo-Mediterraneen (EMSC)
5, rue René Descartes
F 67084 Strasbourg Cedex
France
Director: E. Peter Schmitt</p> | H | <p>Environment and Human Settlements Division
Economic Commission for Europe (ECE)
Palais des Nations
1211 Geneva 10, Switzerland</p> |
| G | <p>Committee for Co-ordination of Joint Prospecting for Mineral Resources in Asian Offshore Areas, East Asia (CCOP,EA)
c/o ESCAP
United Nations Building
Bangkok 2, Thailand
Manager/Chief Technical Advisor: S. K. Chung</p> | G | <p>Geological Society of America (GSA)
3300 Penrose Place, P.O. Box 9140
Boulder, Colorado 80301 U.S.A.
Executive Director: F. Michael Wahl</p> |
| G | <p>Committee for Co-ordination of Joint Prospecting for Mineral Resources in Asian Offshore Areas, South Pacific (CCOP/SOPAC)
c/o Mineral Resources Division
Private Mail Bag
Suva, Fiji
Project Manager: Cruz A. Matos</p> | G,H | <p>Economic and Social Commissioner for Asia and the Pacific (ESCAP)
United Nations Building
Rajdamnern Avenue
Bangkok 2, Thailand
Executive Secretary: S. A. M. S. Kibria</p> |
| G | <p>Committee for Co-ordination of Joint Prospecting for Mineral Resources in Asian Offshore Areas, South Pacific (CCOP/SOPAC)
c/o Mineral Resources Division
Private Mail Bag
Suva, Fiji
Project Manager: Cruz A. Matos</p> | G | <p>Instituto Centroamericano de Investigación y Tecnología Industrial (ICAITI) [Central American Research Council for Industry]
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Director: Ing. Francisco Aguirre</p> |

- G Instituto Panamericano de Geografia e Historia (IPGH)
Comision de Geofisica del IPGH
Apartado 11363
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- G,H,C International Association for Advancement of Earth and Environmental Sciences
Department of Earth Sciences
Northeastern Illinois State University
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Contact: Musa Qutub
- H International Atomic Energy Agency (IAEA)
Wagramerstrasse 5, P.O. Box 100
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Director General: Hans Blix
- G International Association of Engineering Geology (IAEG)
Laboratoire Central des Ponts et Chaussees
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- C International Association of Geodesy (IAG)
39ter, rue Gay Lussac
F-75005 Paris, France
Secretary General: M. Michael Louis
- H International Association of Hydrological Sciences (IAHS)
Maclean Building
Crownmarsh Gifford
Wallingford OW10 888
England
Secretary General: J. C. Rodda
- G International Association for Mathematical Geology (IAMG)
Kansas Geological Survey
University of Kansas
Lawrence, Kansas 66045 U.S.A.
Secretary General: John C. Davis
- G International Association of Planetology
Institute of Applied Geophysics
Podbelohorska 47
11015 Praha, Czechoslovakia
Executive Officer: Nadezda Stovickova
- G International Association for the Physical Sciences of the Ocean (IAPSO)
LaFond Oceanic Consultants
P.O. Box 7325
San Diego, California 92107 U.S.A.
President: Devendra Lal
Secretary-General: Eugene C. LaFond
- G International Association of Sedimentologists
Laboratoire de Paléontologie
Université de Liège
7, Place du 20 Août
4000, Liège, Belgium
General Secretary: Clv Monty
- G International Association for the Study of Clays
Place Croix de Sud 1
B-1348 Louvain-la-Neuve
Belgium
Secretary-General: A. J. Herbillon
- G International Association of Seismology and Physics of the Earth's Interior (IASPEI)
Newbury RG13 ILK
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Secretary General: R. D. Adams
- G International Association of Volcanology and Chemistry of the Earth's Interior (IAVCEI)
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University of Nottingham
University Park
Nottingham NG7 2RD
Secretary General: P. E. Baker
- C International Cartographic Association (ICA)
Fottbrovägen 16
S-112 64 Stockholm, Sweden
President: F. J. Ormeling
Secretary General: O. Hedbom
- G International Council for Exploration of the Sea (ICES)
Palaegade 2-4
DK-1261 Copenhagen K, Denmark
Secretary General: Hans Tambs-Lyche
President: B. B. Parrish
- H International Commission on Irrigation and Drainage (ICID)
48, Nyaya Marg, Chanakyapuri
New Delhi-110 021
India
- H International Commission on Large Dams (ICOLD)
151, Boulevard Haussmann
75008 Paris, France
Secretary General: Joannes Cotillon
- G International Commission for Palynology
Esso Rep-EPR-E
B.P. 150
33321 Begles Cedex, France
Secretary-Treasurer: R. Jan du Chene
- G,H,C International Council of Scientific Unions (ICSU)
51, Boulevard de Montmorency
75016 Paris
France
Executive Secretary: F. W. G. Baker

- H International Development Association (IDA)
The World Bank
1818 H Street, NW
Washington, D.C. 20433 U.S.A.
- G International Energy Agency (IEA)
World Coal Resources and Reserves Data Bank
Service
14, Lower Grosvenor Place
London SW1W OEX, England
- G International Coordination Council of Societies of
Mineral Deposits Geology (CCSMDG)
Departamento de Geologia
Universidad Autonoma
Canto Blanco
Madrid 34, Spain
Secretary Treasure: G. Monseur
- G International Geological Correlation Programme
(IGCP)
UNESCO
7, Place de Fontenoy
75700 Paris, France
Secretary: E. von Braun
- G International Geological Congress, 27th, 1984
(IGC)
Institute of Lithosphere
22, Staromonetny per
109180 Moscow, U.S.S.R.
President of Organizing Committee, Y. A.
Kozlovsky
Secretary General: N. A. Bogdanov
- G International Glaciological Society
c/o Scott Polar Research Institute
Lensfield Road
Cambridge, CB2 1ER, England
Secretary General: Hilda Richardson
- G,C International Geographical Union (IGU)
Geographischr Institut
University of Freiburg
D-78 Freiburg, Federal Republic of Germany
Secretary General: Walter Manshard
- C International Hydrographic Organization (IHO)
International Hydrographic Bureau (IHB)
7 Avenue President Kennedy
B.P. 345 Monte-Carlo
MC 98000, Monaco
Directing Committee: F. L. Fraser, President;
O. A. A. Affonso; J. E. Ayres
- H International Hydrological Programme
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7 Place de Fontenoy
75700 Paris, France
Secretary: Sorin Dumitrescu
- G,H International Institute for Applied Systems
Analysis (IIASA)
Schloss Laxenburg
2362 Laxenburg, Austria
Director: C. S. Holling
- G,H,C International Institute for Aerial Survey and
Earth Sciences (ITC)
144 Boulevard 1945
P.O. Box 6
Enschede, Netherlands
Secretary: A. J. van aer Weele
- G Internatonal Mineralogical Association (IMA)
University of Marburg, Institute of Mineralogy
Lahnberge
3550 Marburg, West Germany
Secretary: Stefan S. Hafner
- G,H Intergovernmental Oceanographic Commission
(IOC)
UNESCO
7, Place de Fontenoy
75700 Paris, France
Chairman: I. A. Ronquillo
Secretary: Mario de Oliveira Ruivo
- G,H International Oceanographic Foundation (IOF),
Planet Ocean
3979 Rickenbacker Causeway
Miami, Florida 33149 U.S.A.
Chief Executive Officer: F. G. Walton Smith
- G International Ocean Institute (IDI)
Royal University of Malta
Msida, Malta
Director: G. L. Kesteven
- G International Organization of Paleobotany (IOP)
NE London Polytechnic
Romford Road
London E15 4L2, England
President: T. Delevoryas
Secretary General: M. C. Boulter
- H International Organization for Standardization
(ISO)
1 Rue de Varembe
1211 Geneva 20, Switzerland
Secretary General: Olle Sturen
- G International Paleontological Association (IPA)
Geologisch-Palaontologisches
Institut und Museum der Universitat Gottingen
Goldschmidt-Strasse 3
D-3400 Gottingen, Federal Republic of Germany
Secretary General: H. Walliser

G	International Society for Rock Mechanics (ISRM) Laboratorio Nacional de Engenharia Civil 101, Av. do Brasil P-1799 Lisboa CODEX, Portugal Secretary General: Nuno F. Grossmann	H	Natural Resources Division Economic Commission for Africa (ECA) P.O. Box 3001 Addis Ababa, Ethiopia
G,C,H	International Society for Photogrammetry (ISP) Institut für Photogrammetrie Universität Hannover Nienburger Strasse 1 D-3000 Hannover, West Germany Secretary General: Gottfried Konacny	H	Division of Natural Resources and Energy Economic Commission for Latin America (ECLA) Edificio Haciones Unidas Casilla 179 D Santiago, Chile Officer in charge: Axel Dourojeanni
G	International Union of Crystallography (IUCR) 5 Abbey Square Chester CH1 2HU, England President: J. Karle Executive Secretary: J. N. King	G,H	Organization for Tropical Studies (OTS) North American Office P.O. Box DM, Duke Station Durham, North Carolina 27706 U.S.A. Executive Director: Donald E. Stone
G,C,H	International Union for Conservation of Nature and Natural Resources (IUCN) CH-1196 Gland, Switzerland Director General: Lee M. Talbot	G,C,H	Pacific Science Association P.O. Box 17801 Honolulu, Hawaii 96817 U.S.A. Secretary General: Brenda Bishop
G	International Union of Geological Sciences (IUGS) Maison de la Geologie 77, rue Claude Bernard 75005 Paris, France Secretary General: C. C. Weber	G,C,H	Pan American Institute of Geography and History (PAIGH) Ex-Arzobispado 29 Col. Observatorio 11860 Mexico 18 DF, Mexico Secretary General: Jose A. Saenz G.
G,C	International Union of Geodesy and Geophysics (IUGG) Observatoire Royal de Belgique Avenue Circulaire 3 1180 Bruxelles, Belgium Secretary General: Paul Melchior	H	Resources and Transport Division United Nations (UN) New York, N.Y. 10017 U.S.A.
G,H	International Union for Quaternary Research (INQUA) Institute of Foundation Engineering ETH-Honggerberg CH-8039 Zurich, Switzerland Secretary-Treasurer: Dr. Cristian Schluchter	R	Saudi-Sudanese Red Sea Joint Commission P.O. Box 5886 Jiddah-21432, Saudi Arabia Deputy Secretary General: Dr. Zohair A. Nawab
H	International Water Resources Association (IWRA) Science Complex Building University of Wisconsin Milwaukee, Wisconsin 53201 U.S.A.	H	Scientific Affairs Division North Atlantic Treaty Organization (NATO). B-1110 Brussels, Belgium
H	Inter-Union Commission on the Lithosphere (ICL) NASA Headquarters, Code EL-4 Washington, D.C. 20546 U.S.A. Secretary General: E. A. Flinn	G	Seismological Society of the South-West Pacific (SSSWP) Seismological Observatory P.O. Box 8005 Wellington, New Zealand Governor: G. A. Eiby
H	Land and Water Development Division Food and Agriculture Organization (FAO) Viale delle Terme di Caracalla 00100 Rome, Italy	G	Subcommission for the Metallogenic Map of the World U.S. Geological Survey, MS 952 Reston, Virginia 22092 USA President: Philip W. Guild

G	Subcommittee for the Tectonic Map of the World Geological Institute U.S.S.R. Academy of Science Pyzhevsky per. 7 Moscow 109017, U.S.S.R. President: A. V. Peive Secretary General: V. E. Khain	G,H	Office of the United Nations Disaster Relief Co-ordinator (UNDRC) Palais des Nations CH-1211 Geneva 10, Switzerland
G,H,C	United Nations Development Programme (UNDP) Bureau for Programme, Policy and Evaluation Room DC1-2072 One UN Plaza New York, N.Y. 10017 U.S.A. Principal Technical Advisor (Mineral Resources): Willem O. J. Groeneveld-Meijer	G,C,H	United Nations Educational, Scientific and Cultural Organization (UNESCO) Division of Earth Sciences 7, place de Fontenoy 75700 Paris, France Director: V. Sibrava
H	United Nations Environment Program (UNEP) Information Service P. O. Box 30552 Nairobi, Kenya	H	World Health Organization (WHO) 1211 Geneva 27, Switzerland
		H	World Meteorological Organization (WMO) P.O. Box No. 5 CH-1211 Geneva 20, Switzerland Secretary General: G. O. P. Obasi