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504 CUSTOM HOUSE
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Worldwide Directory of National Earth-Science Agencies

Worldwide Directory of National Earth-Science Agencies

Compiled by Wenonah E. Bergquist,
Ralph L. Miller, Anne Lucas Falk,
and Jane A. Tyskowski

G E O L O G I C A L S U R V E Y C I R C U L A R 7 7 1

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

United States Department of the Interior
CECIL D. ANDRUS, *Secretary*



Geological Survey
W. A. Radlinski, *Acting Director*

*Free on application to Branch of Distribution, U.S. Geological Survey
1200 South Eads Street, Arlington, Va. 22202*

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Worldwide Directory of National Earth-Science Agencies

By Wenonah E. Bergquist, Ralph L. Miller, Anne Lucas Falk, and Jane A. Tyskowski

INTRODUCTION

U.S. Geological Survey (USGS) Circular 716, "Worldwide Directory of National Earth-Science Agencies," published in 1975, proved to be popular and effective, providing ready reference to 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. Because the directory should be relatively current for maximum usefulness, the compilers have brought the directory up to date as of June 1977.

In order to get the most current and inclusive information, persons who actually worked in a country and had personal knowledge of its earth-science agencies were contacted; many of these were officers attached to U.S. Embassies. Responses have been most gratifying. We are indebted to these officers and to their counterparts in foreign governments, as well as to all others who have assisted us with information.

The new directory is arranged alphabetically by country; the name of each country is followed by the list of appropriate agencies. The

location of each country is shown on an index map, which is keyed to one of eight reference maps showing major regions of the world. These index maps should be helpful in locating countries that have changed names or that have recently attained independence.

Wherever feasible, names of agencies in countries whose languages are based primarily on the Latin alphabet are given in the language of the country. English translations have been added in brackets where they seem necessary for easy understanding. Names of agencies in countries whose language utilizes an alphabet other than Latin are given in English.

The principal functions of the USGS and of the agencies in the directory are indicated by the following code:

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

The directory has been expanded by the addition of a list of major international organizations whose work is similar to that of agencies in the directory.



I.—North America.



II.—Middle America.



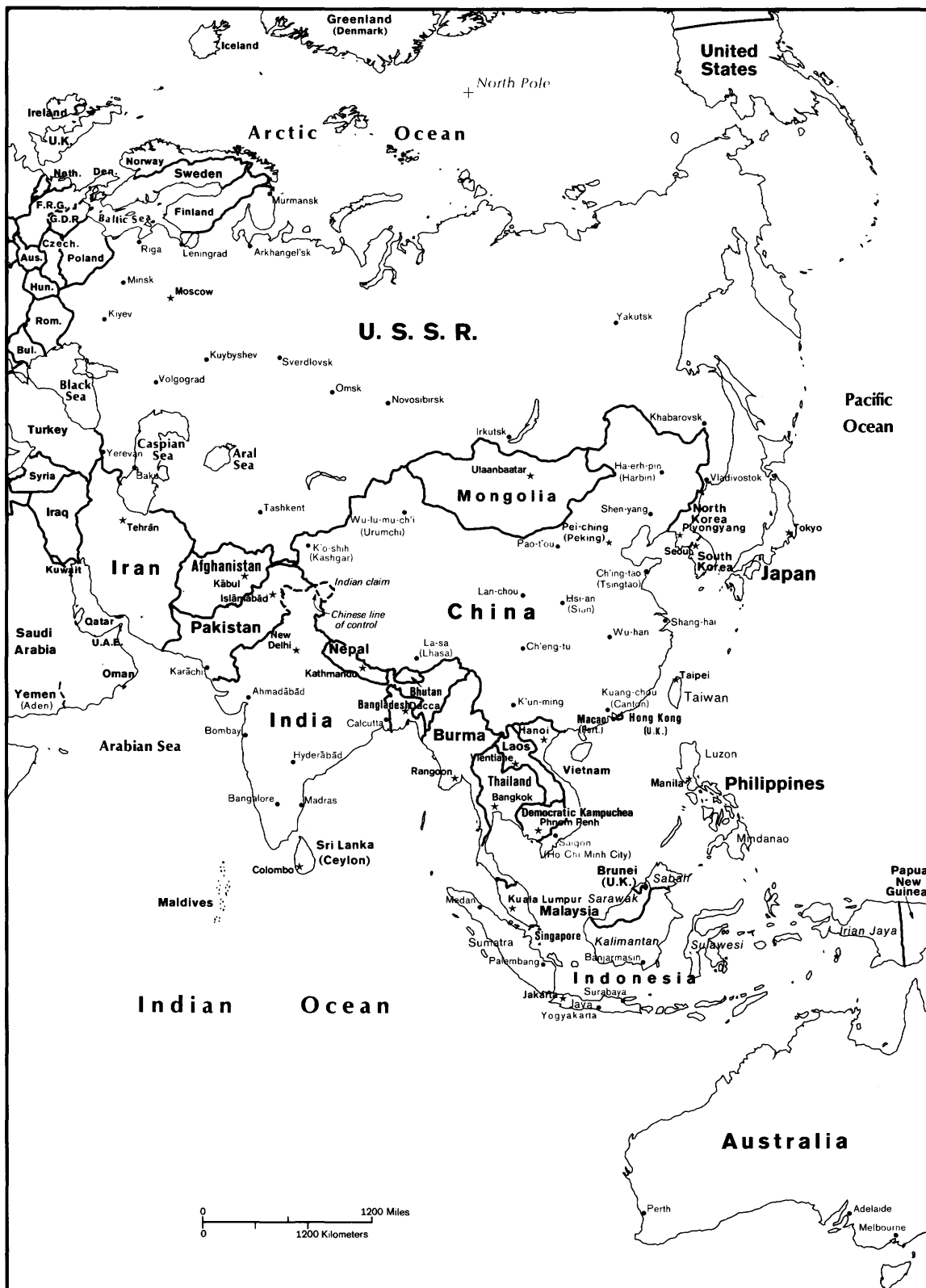
III.—South America.



IV.—Europe.



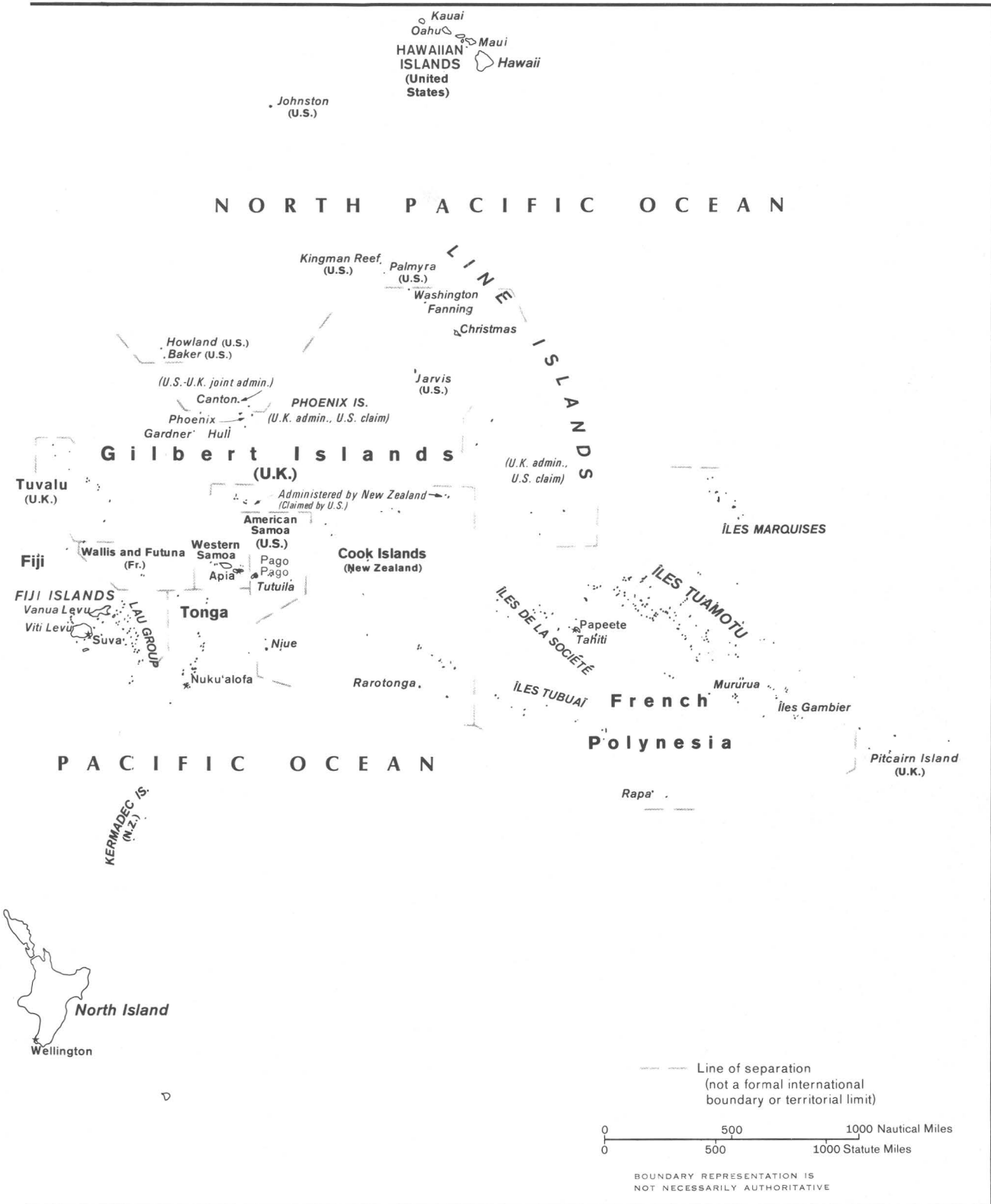
V.—Middle East.



VII.—U.S.S.R. and Asia.

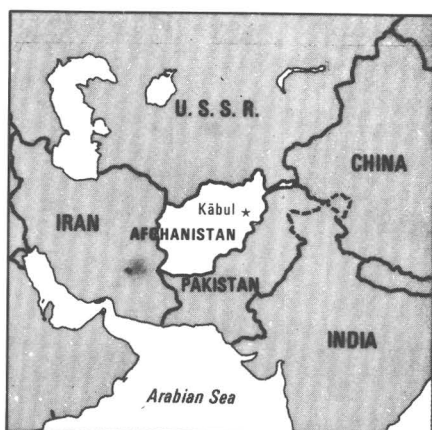


VIII—Oceania.



VIII—Oceania.

AFGHANISTAN



(See reference map VII)

- 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
- C Cartographic and Cadastral Survey
Institute
Institute of Cartography
Kabul
Director: Amir Ahmad
- H Ministry of Water and Power
Kabul
Minister: Jumma Mohammed Mohammadi
- R Afghan National Petroleum Company
Ministry of Mines and Industries
Kabul
President: Abul Samad Salah
Acting Deputy Minister Director-General:
Hafizullah Nawabi

ALBANIA



(See reference map IV)

- G Ministry of Industry and Mining
Tirane
- C Association of Scientific Workers of the
Peoples Republic of Albania
Tirane
President: Kol Paparisto
- H Instituti Hidrometeorologjik
Tirane

ALGERIA

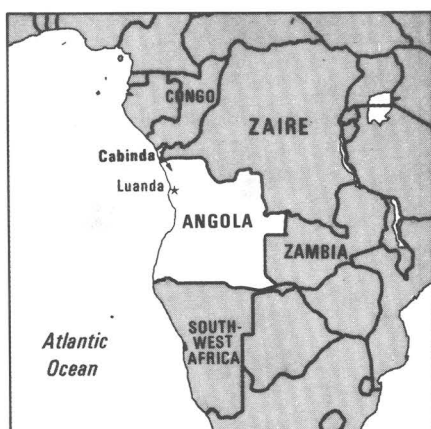


(See reference map V)

- G Service Géologique de l'Algérie
Immeuble Mauretania
Boulevard Colonel Amirouche
Agha, Algiers
Director: Omar Merabet
- G, H Service d'Hydro Géologie
Immeuble DEMRH
Clairbois
Avenue Mohammedi
Birmandreis, Algiers
Chief of Service: Abderrahmane Salem

- C Institut Géographique National
20 rue Abane Ramdane
Algiers
Director: M. Pinson
- C Institut National de Cartographie
Ministère de la Défense Nationale
123 rue de Tripoli
B.P. 32
Hussein Dey, Algiers
Director: Mohammed Boualga
- H Secrétariat d'Etat à l'Hydraulique
Ex-Grand Séminaire
Kouba, Algiers
Minister: Abdellah Arbaoui
Secretary General: Djillali Benamrane
- H Ministry of Hydraulics, Land Development
and the Environment
Algiers
Director: Ahmed Bencherif
- R Ministère de l'Industrie et de l'Energie
Immeuble de Colisée
Rue Zephirin Roccas
Algiers
Minister: Belaid Abdesselam

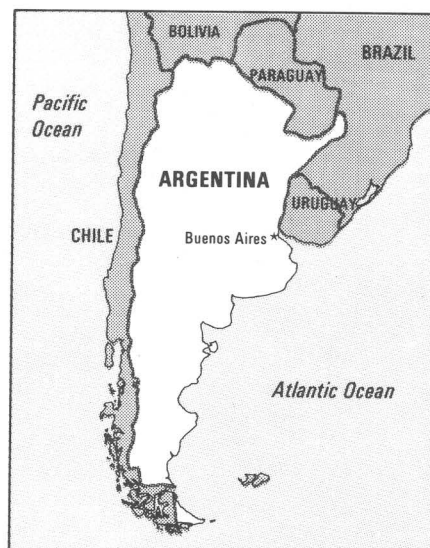
ANGOLA



(See reference map VI)

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

ARGENTINA

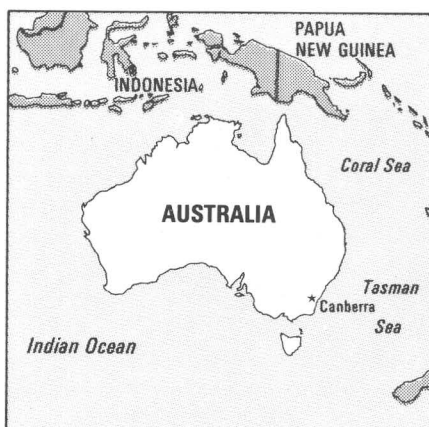


(See reference map III)

- G Servicio Minero Nacional
Avenida Santa Fe 1548
Buenos Aires
Director: Oscar Valentin Reverberi
- G Servicio Geológico Nacional
Secretaria de Estado de Recursos Naturales
Avenida Santa Fe 1548
Buenos Aires
Director: Ubaldo Zucolillo (acting)
- G Gerencia de Exploración
Yacimientos Petrolíferos Fiscales
Avenida Roque Seanz Pena 777
Buenos Aires
- G Director Nacional de Combustibles
Secretaria de Estado de Energía
Avenida Julio Roca 7° Piso
Buenos Aires
Director: Osvaldo Calcagno
- G Director Nacional Economía Minera
Avenida Santa Fe 1548
Buenos Aires
Director: Pelayo Penas
- G Fabricaciones Militares
Cabildo 65 2° Piso
Sub-Director de Desarrollo Minero
Director: Diego Ernesto Urricariet
- G Comisión Nacional de Energía Atómica
Avenida Libertador 8250
Buenos Aires
President: Castro Madero
- G Yacimientos Carbonífera Fiscales
Avenida R. Saenz Pena 1190 2° Piso
Buenos Aires
Director: Contador Roberto Miguel Berwick

- G Secretaria de Estado de Ciencia y
 Tecnología
 Cordoba 831
 1054 Buenos Aires
- C Instituto Geográfico Militar
 Avenida Cabildo 381
 Buenos Aires
 Director: Luis Horacio Pagliere
- H Servicio de Hidrografía Naval
 Montes de Oca 2124
 1271 Buenos Aires
 Jefe: Sebastian Felix Villanueva
- H Instituto Nacional de Ciencias y Técnicas
 Hídricas
 Lavalle 1625, 3° Piso
 1048 Buenos Aires
 Presidente: Herminio Perez
- R Secretaría de Estado de Minería
 Avenida Julio A. Roca 651, 10 Piso
 Buenos Aires
 Secretary: Fernando Puca Prota

AUSTRALIA



(See reference map VIII)

- G Department of National Resources
 Bureau of Mineral Resources, Geology, and
 Geophysics
 P.O. Box 378
 Canberra, A.C.T., 2601
 Director: L. C. Noakes
- G Offshore and International Division
 Department of National Resources
 A.M.P. Building
 Canberra, A.C.T., 2600
 First Assistant Secretary: L. F. Bracken
- G, C, R Uranium and Electricity Division
 Department of National Resources
 Tasman House
 Canberra, A.C.T., 2600
 First Assistant Secretary: J. T. Larkin
- C Division of National Mapping
 Department of National Resources
 7-9 Morrissett Street
 Queanbeyan, New South Wales 2620
 Director: A. G. Bomford
- C Director of Mapping
 Department of Lands
 G.P.O. Box 39
 Sydney, New South Wales, 2001
 Surveyor General: William Kennedy
- H Water and Special Projects Division
 Department of National Resources
 Tasman House
 Canberra, A.C.T., 2600
 First Assistant Secretary: A. G. Bennett
 Assistant Secretary Water Branch: A.
 Manderson
- R Department of National Resources
 Tasman House
 Canberra, A.C.T., 2600
 Minister: J. D. Anthony
 Secretary: James Scully
- R Energy Policy Division
 Department of National Resources
 Tasman House
 Canberra, A.C.T., 2600
 First Assistant Secretary: P. H. Barratt
- R Mineral Policy Division
 Department of National Resources
 Tasman House
 Canberra, A.C.T., 2600
 First Assistant Secretary: W. J. Ricketts
- G Minerals No. 1 Division
 Department of National Resources
 Tasman House
 Canberra, A.C.T. 2600
 First Assistant Secretary: J. W. Wilcox
- G Minerals No. 2 Division
 Department of National Resources
 Tasman House
 Canberra, A.C.T., 2600
 First Assistant Secretary: J. M. T. Reddy
- G Minerals No. 3 Division
 Department of National Resources
 Tasman House
 Canberra, A.C.T., 2600
 First Assistant Secretary: P. Connolly

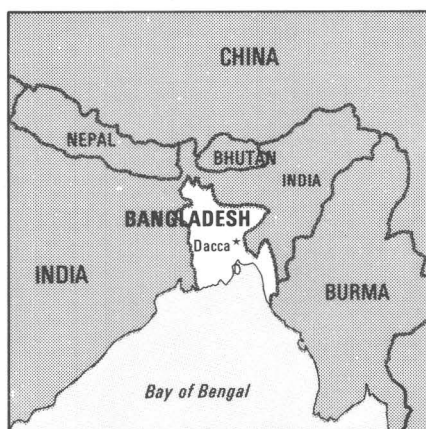
AUSTRIA



(See reference map IV)

- G Geologische Bundesanstalt
Rasumovskygasse 23
A-1031 Vienna
Director: Felix Ronner
- C Bundesamtes für Eich-und
Vermessungswesen
Gruppe Landesaufnahme
Krotenthallergasse 3
A-1080 Vienna
President: Johann Bernhard
- C Bundesamt für Eich-und
Vermessungswesen
Gruppe Vermessungswesen
Friedrich-Schmidt-Platz 3
A-1082 Vienna
- C Österreichische Kommission für die
Internationale Erdmessung
Gusshausstrasse 27-29
A-1040 Vienna
President: Josef Mitter
- H Hydrographisches Zentralbüero
Marxergasse 2
A-1030 Vienna
Secretary: Hans Schimpf
- H, G Zentralanstalt für Meteorologie und
Geodynamik
Hohe Warte 38
A-1190 Vienna
- R Austrian Oil Administration
Otto-Wagner-Platz 5
A-1090 Vienna
Director General: Ludwig Bauer
- R Austrian Supreme Mining Authority
Stubenring 1
A-1010 Vienna
Director: Dr. Frank

BANGLADESH



(See reference map VII)

- G Geological Survey
Pioneer Road
Segun Bagicha
Dacca
Director General: Mesbahuddin Ahmed
- G Landsat
Road No. 18 House No. 605
Dhanmondi Residential Area
Dacca
Principal Investigator: Anwar Hossain
- C Land Records and Survey Department
Tejgaon Industrial Area
Dacca
Director: Abdul Jabber
- C Survey of Bangladesh
Dacca
Director: Bazlur Rahman
- H Surface Water Hydrology—I
Bangladesh Water Development Board
48 Motijheel Commercial Area
Dacca
Director: Abdul Matin
- H Surface Water Hydrology—II
Bangladesh Water Development Board
60 Motijheel Commercial Area
Dacca
Director: Mohammad Abdus Sabur
- R Petro-Bangla
(Bangladesh Oil and Gas Development
Corp.)
122-124 Motijheel Commercial Area
Dacca
Chairman: Nazrul Islam
- R Ministry of Petroleum and Minerals
Government of Bangladesh
Main Building (1st floor)
Bangladesh Secretariat
Dacca
Secretary: Kazi Fazlur Rahman

- R Bangladesh Mineral Exploration and Development Corporation (BMEDC)
8/5 and 8/6 Segun Bagicha
Dacca

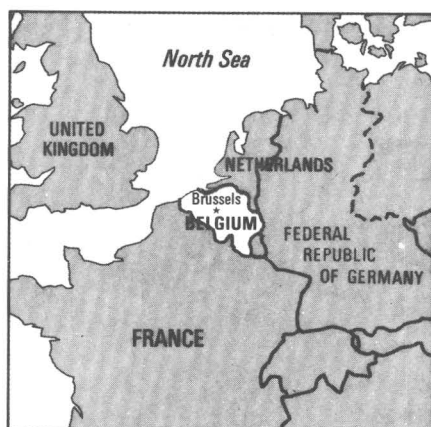
BARBADOS



(See reference map II)

- G Bellairs Research Institute
St. James
President: Douglas R. Carter
- C Ministry of Home Affairs
Government Headquarters
Bay Street
Bridgetown

BELGIUM

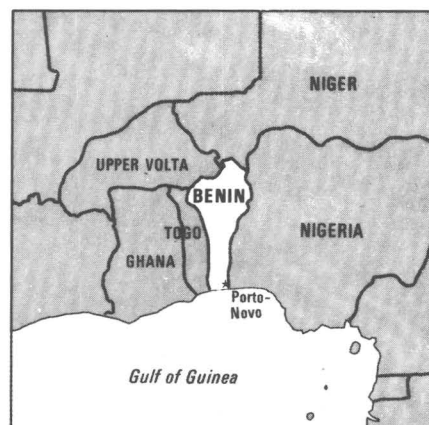


(See reference map IV)

- G Service Géologique de Belgique
13 rue Jenner, Parc Leopold
Brussels 4
Inspecteur General: A. Delmer
- C Institut Géographique Militaire
13 Abbaye de la Cambre
Brussels 4
Director General: R. Verbeek

- C Ministère de Travaux Publics
Service de Topographie et de
Photogrammetrie
155 Rue de la Loi
Brussels 4
- H L'Association Nationale des Services
d'Eau (ANSEAU)
Antwerp
President: G. A. Schroeyers
- R Ministère des Affaires Économique
Administration de l'Energie
26 Rue J. A. de Mot
Brussels 4
Director General: J. Martens
Petroleum-Gas: L. de Schrijver
- R Ministère des Affaires Économique
23 Square de Meeus
Brussels 4
Minister: Edmond Leburton

BENIN (formerly DAHOMEY)

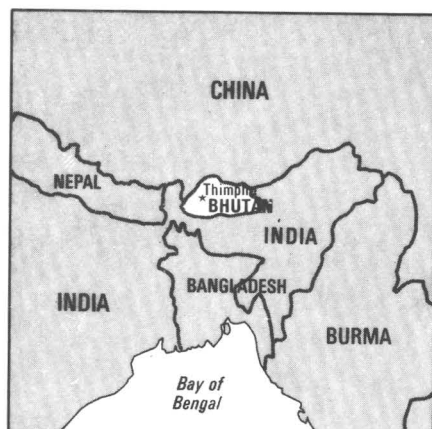


(See reference map VI)

- G Direction des Mines, de la Géologie,
et des Hydrocarbures
Ministère des Travaux Publics, des
Transports et des Telecommunications
B.P. 249
Cotonou
Chief: Julien C. Laleye
- G, H Office de la Recherche Scientifique et
Technique Outre-mer Centre (ORSTOM)
de Cotonou¹
B.P. 390
Cotonou
Director: P. Viennot
- C Direction de la Topographie et du
Cadastre
Ministère des Travaux Publics
B.P. 360
Cotonou
Director: N. Moussedikou

¹ Designates French research organization, without governmental affiliation.

BHUTAN



(See reference map VII)

G, C, H Department of Trade and Industries
Thimphu
Director: Rinchen Dorji

BOLIVIA



(See reference map III)

G Servicio Geológico de Bolivia
Ministerio de Minas y Petróleo
Federico Zuazo, Esq. Reyes Ortiz
Casilla de Correo 2729
La Paz
Director: Alvaro Fernandez C.

G Fondo Nacional de Exploración
Calle Cordero 257
La Paz
General Manager: Jaime Villalobos

G Observatorio Sísmico San Calixto
Casilla 944, La Paz
Director: R. P. Remón Cebra

G Impresa Siderúrgica Boliviana (SIDERSA)
Avenida 16 de Julio No. 1769
La Paz

General Manager: Carlos Morales
Technical Manager: Walter Soriano

G Corporación Minera de Bolivia
Avenida Mariscal Sta. Cruz No. 1092,
La Paz
General Manager: Carlos Alcoveza
Technical Manager: Eduardo Acebey

G, R Yacimientos Petrolíferos Fiscales
Bolivianos (YPFB)
Casilla 401
La Paz
General Manager: Rolando Prado
Manager of Exploration: Jaime Oblitos

C Instituto Geográfico Militar y Catastro
Nacional
Avenida Saavedra, Miraflores
Commandant: Adolfo Zuniga Bosco

H Oficina de Aguas Potables por
Comunidades
La Paz
Chief: P. A. Parada P.

R Ministerio de Minería y Metalurgia
Avenida 16 de Julio No. 1769
La Paz
Minister: Alfonso Villalpando
Sub-Secretary: Armando de Uriosta, S. B.

R Instituto Minero Metalurgia (IMM)
Casilla 600
Oruro
Director: Grover Gutierrez

R Ministerio Energía e Hidrocarburos
1322 Avenida Mariscal Santa Cruz
La Paz
Minister: Guillermo Jimenez Gallo
Sub-Secretary: Jorge Zamora

R, G Comisión Boliviana de Energía Nuclear
2905 Avenida 6 de Agosto
La Paz
Director: Francisco Mariaca

BOTSWANA



(See reference map VI)

- G, C Geological Survey Department
Ministry of Mineral Resources and
Water Affairs
Private Bag 14
Lobatsi
Director: C. R. Jones
- C Department of Surveys and Lands
Ministry of Mineral Resources and
Water Affairs
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: N. S. Skans
- R Department of Mines
Ministry of Mineral Resources and
Water Affairs
Private Bag 49
Gaborone
Mining Commissioner: T. M. Crandell
- R Ministry of Mineral Resources and
Water Affairs
Private Bag 29
Gaborone
Permanent Secretary (all Departments):
B. Gaolathe

BRAZIL



(See reference map III)

- G Instituto de Pesquisas Especiais (INPE)
Caixa Postal 515
São José dos Campos
São Paulo, SP
Director General: Jesus Parada
- G Companhia de Pesquisa de Recursos
Minerais
Avenida Pasteur, 404
Praia Vermelha
Rio de Janeiro, RJ
President: Yvan Barretto de Carvalho
- G Petróleo Brasileiro S.A. (PETROBRAS)
Avenida Chile, 65
Rio de Janeiro, RJ
President: Araken de Oliveira
- G, R Departamento Nacional da Produção
Mineral (DNPM)
Setor de Autarquia Norte
Esplanada dos Ministérios Quadra 1-
Projeção F
Brasília, D.F.
Director General: Acyr Ávila da Luz
Director, Geologic Division: José Carlos
Braga
- G, R Empresas Nucleares Brasileiras S.A.
NUCLEBRAS
Rua Gen. Polidoro, 316- Botafogo
Rio de Janeiro, RJ
President: Paulo Nogueira Batista
Director of Mineral Exploration:
John M.A. Forman
- C Diretoria do Serviço Geográfico do
Exército
Ministério de Exército
Bloco G-SMU
Brasília, D.F.
Director: Aristides Barreto
- C Diretoria de Geodesia e Cartografia
Instituto Brasileiro de Geografia e

Estatística
Avenida Franklin Roosevelt, 146
Rio de Janeiro, RJ
President: Isaac Kerstenetzky

C Projeto RADAM
Trav. Benjamin Constant, 1009
Belém, Para
Executive Secretary: Antônio Luiz
Sampaio de Almeida

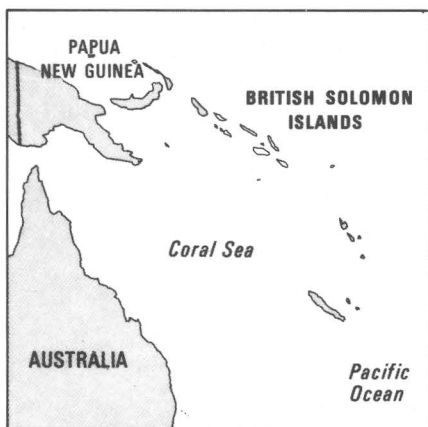
H Departamento Nacional de Aguas e
Energia Elétrica (DNAEE)
Ministério das Minas e Energia
Esplanada dos Ministérios
Bloco J, 3° andar
Brasília, D.F.
Director General: Luiz Carlos Menezes

R Ministry of Mines and Energy
Esplanada dos Ministérios—Bloco J
70000 Brasília, D.F.
Minister: Shigeaki Ueki

R Conselho Nacional do Petróleo (CNP)
Ministério das Minas e Energia
Esplanada dos Ministérios
Bloco J
Brasília, D.F.
President: Oziel Almeida Costa

R, G Comissão Nacional de Energia Nuclear
(CNEN)
Rua General Severiano, 90
Botafogo-ZC-02
20000 Rio de Janeiro, RJ
Executive Director for Mineral Affairs:
José Raimundo de Andrades Ramos

BRITISH SOLOMON ISLANDS

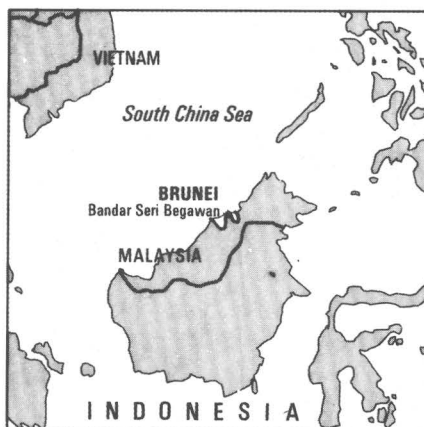


(See reference map VIII)

G Department of Geological Surveys
P.O. Box G24
Honiara, Guadalcanal
Director: R. B. Thompson

R Ministry for Natural Resources
Honiara, Guadalcanal
Minister: Paul Tovua

BRUNEI



(See reference map VII)

G The Government Geologist
Brunei Town

C Survey Department of Brunei
Bandar Seri Begawan

BULGARIA



(See reference map IV)

G Geologicheski Institut
Bulgarska Akademiya na Naukite
Akademik Bonchev St., Blok 2
Sofia
Deputy Director: B. Bogdanov

G Committee on Geology
Ministry of Mineral Resources
No. 22 Georgi Dimitrov Blvd.
Sofia
Chairman: Yorcho Kunev

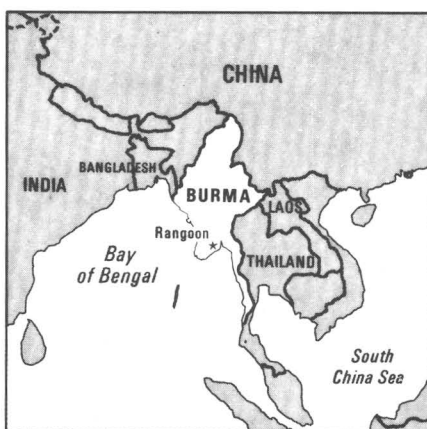
C Scientific Research Institute on Geodesy
and Photogrammetry
No. 1 Musala St., Pavlovo

Sofia
Director: D. Stojčev

- C Union Scientifique Technique des
Geodesiens Bulgares
108 Rue Rakovski
B.P. 431
Sofia 1500

- H Administration for Hydrology and
Meteorology (including a Scientific
Research Institute)
Bulgarian Academy of Sciences
No. 66, Lenin Boulevard
Sofia
Chief: Kostadin Stanchev

BURMA

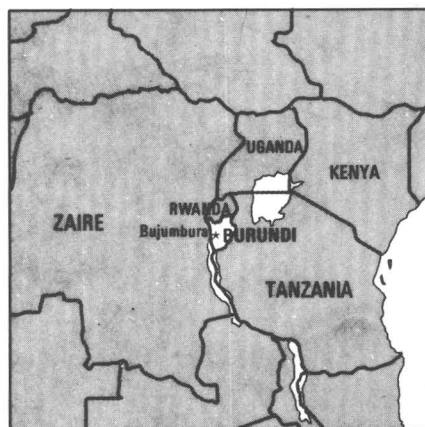


(See reference map VII)

- G Geological Division
Ministry of Agriculture and Forestry
Rangoon
Chief: U San Lwin
- G Directorate of Geological Survey and
Exploration
Ministry of Mines
Kanbe Road, Yankin P.O.
Rangoon
Director General: U Sein Myint
- C Union of Burma Applied Research Institute
Kanbe Road, Yankin P.O.
Rangoon
Director General: Freddy ba Hli
- C Burma Survey Department
Ministry of Agriculture and Forestry
460 Merchant Street
Rangoon
Director-General: U Hla Kyaw
- H Department of Irrigation
Ministry of Agriculture and Forestry
Rangoon

- H Directorate of Meteorology and Hydrology
Rangoon
Director-General: U Hla

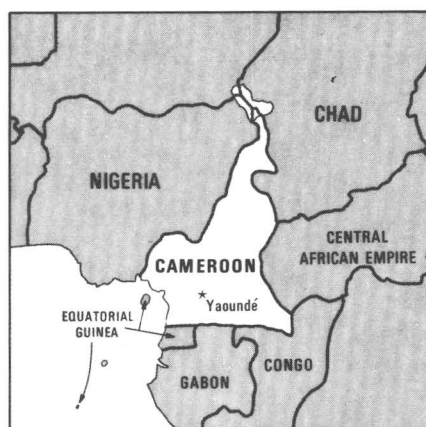
BURUNDI



(See reference map VI)

- G Ministère des Affaires Economiques et
Financières
Department de Géologie et Mines
B.P. 745, Bujumbura
Director: Raphael Banciyeke

CAMEROON



(See reference map VI)

- G Office National de la Recherche
Scientifique et Technique (ONAREST)
B.P. 1457
Yaoundé
Director-General: Francois Agnely Gandji
- G Office de la Recherche Scientifique et
Technique Outre-mer Centre ORSTOM
de Yaoundé¹
B.P. 193
Yaoundé
Director: R. Lefevre

¹ Designates French research organization, without governmental affiliation.

- G Direction des Mines et de la Géologie
Ministry of Mines and Energy
B.P. 70
Yaoundé
Director: Mr. Moudio
- G, C, H Institut de Recherches sur les Techniques,
l'Industrie et le Sous-sol (IRTISS)
B.P. 4110
Yaoundé
Director: Soba Djallo
- C Institut de Recherches Zootechniques (IRZ)
B.P. 65
N'Gaoundéré
Director: Joseph Atekwana
- C Institut Géographique National
B.P. 157
Ave. Monseigneur Vogt
Yaoundé
Director: Marc Darolles
- C, H Institut des Recherches Agricoles et
Forestières (IRAF)
B.P. 29
Yaoundé
Director: Jean Nya Ngatchou

CANADA

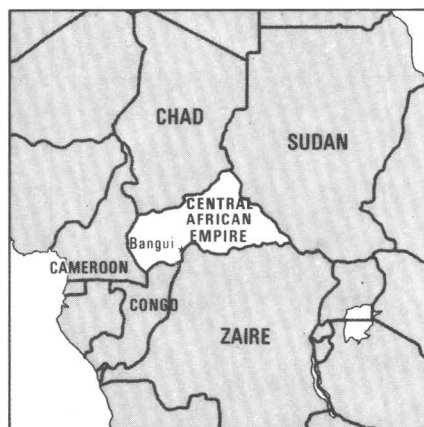


(See reference map I)

- G Canada Centre for Mineral and Energy
Technology
Department of Energy, Mines, and
Resources
555 Booth Street
Ottawa, Ontario, K1A 0G1
Director: D. F. Coates
- G Geological Survey of Canada
Department of Energy, Mines, and
Resources
601 Booth Street
Ottawa, Ontario, K1A 0E8
Director: D. J. McLaren

- C Surveys and Mapping Branch
Department of Energy, Mines, and
Resources
615 Booth Street
Ottawa, Ontario, K1A 0G1
Director: R. E. Moore
- H Inland Waters Directorate
Department of Environment
Place Vincent Massey
St. Joseph Boulevard
Hull, Quebec
Director: J. P. Bruce
- R Mineral Development
Department of Energy, Mines, and
Resources
580 Booth Street
Ottawa, Ontario K1A 0E4
Assistant Deputy Minister: Jean-Paul
Drolet
- R National Energy Board
Trebla Building
473 Albert Street
Ottawa, Ontario, K1A 0E5
Chairman: M. A. Crowe

CENTRAL AFRICAN EMPIRE

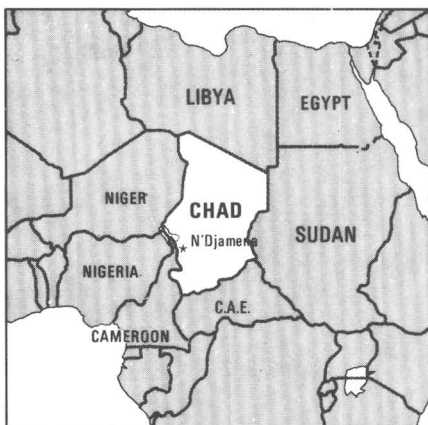


(See reference map VI)

- G Secretary of State for Mines and Energy
Bangui
Secretary: Jean-Jacques Ngoma
- G, C Ministère des Travaux Publiques, des
Transports, des Communications et des
Mines
B.P. 737
Bangui
Director: M. Dubois
- G, R Office de la Recherche Scientifique et
Technique Outre-mer Centre ORSTOM
de Bangui¹

¹ Designates French research organization, without governmental affiliation.

CHAD



(See reference map VI)

- G Office de la Recherche Scientifique et
Technique Outre-mer Centre ORSTOM
de N'Djamena¹
B.P. 65
N'Djamena
Director: Jean Hervieu
- G, C Direction des Mines et de la Géologie
B.P. 816
Fort-Lamy
Director: Omar Abdoul
- R, G Ministère de Génie Civil, des Mines et de
la Géologie
N'Djamena
Minstre Capitaine: Zakaria Wawa Dahab

CHILE



(See reference map III)

¹ Designates French research organization, without governmental affiliation.

- G Dirección de Geología y Minas
Corporación Nacional del Cobre de Chile
Huérfanos 1189, 4° Piso
Director: Hector Flores Williams
- G Centro de Investigaciones Mineras-
Metalúrgicas
Parque Institucional 6500, Lo Curro
Santiago
Director: Alexander Sitalov
- G Instituto de Investigación de Recursos
Naturales
Corporación de Fomento de la Producción
Manuel Montt 1164
Santiago
Delegado Provisorio: Enrique Junemann
Mardones
- G Unidad de Minería
Corporación de Fomento de la Producción
Moneda 921, of. 538
Santiago
Chief: Juan Montoya
- G Departamento Nacional de Geología
Empresa Nacional del Petróleo
Ahumada 341-8° Piso
Casilla 3556
Santiago
Chief: Eduardo González Pacheco
- G Instituto de Investigaciones Geológicas
Agustinas 785, Casilla 10465
Santiago
Executive-Director: Lius Kaiser Schmidt
- G Ministerio de Minas
Teatinos 120
Santiago
Minister: Enrique Valenzuela
- G Servicio de Minas del Estado
Teatinos 120
Santiago
Director: Rogelio Cáceres
- C Servicio Aéreo Fotogramétrico
Casilla 67
Correolos Cerrillos
Santiago
Comandante: Sergio Piñeiro C.
- C Instituto Geográfico Militar
Castro 354
Santiago
Director: Jose Mutis Puccio
- H Instituto Hidrográfico de la Armada
Errazuriz 232
Casilla 324
Valparaíso
Captain: Raul Herrera A.

R Comision Chilena de Energia Nuclear
 (CCEN)
 Los Jesuitas 645
 Casilla 188D
 Santiago
 Director: Colonel Pizarro

CHINA, PEOPLES REPUBLIC OF

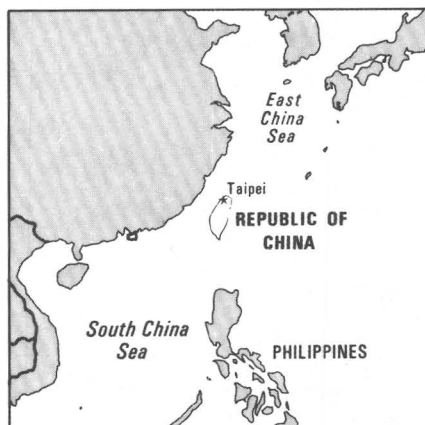


(See reference map VII)

- G Institute of Geology
 Bureau of Coal Industry
 Peking
- G Institute of Geology
 Chinese Academy of Sciences
 Peking
- G Lanchou Institute of Geology
 Chinese Academy of Sciences
 Lanchow, Kansu
- G Institute of Geology
 Ministry of Metallurgy
 Peking
- G Academy of Petroleum Research
 Bureau of Petroleum Industry
 Peking
- G Fushun Academy of Coal Research
 Bureau of Coal Industry
 Fushun, Liaoning
- G Academy of Coal Research
 Bureau of Coal Industry
 Peking
- G Tangshan Academy of Coal Research
 Bureau of Coal Industry
 Tangshan, Hopeh
- G Institute of Geomechanics
 Bureau of Geology
 Harbin
- G The Chinese Academy of Geological Science
 Bureau of Geology
 Peking

- G Institute of Geophysics
 Chinese Academy of Sciences
 Peking
- G Institute of Geophysical Prospecting
 Bureau of Geology
 Peking
- G Institute of Exploration Techniques
 Bureau of Geology
 Peking
- G Central South College of Mining and
 Metallurgy
 Changsha, Hunan
- G Institute of Mining and Metallurgy
 Chinese Academy of Sciences
 Changchun, Kirin
- G Bureau of Geology
 Peking
- G Chengtu College of Geology
 Chengtu, Szechwan
- G Changchun College of Geology
 Changchun, Kirin
- C National Bureau of Geodesy and
 Cartography
 Bureau of Geology
 Peking
 Director: Ch'en Wai-ou
- C Institute of Geography
 Department of Geography and Geology
 Chinese Academy of Sciences
 Peking
 Chairman: Yin Chan-Hsun

CHINA, REPUBLIC OF



(See reference map VII)

- G Chinese Petroleum Corporation
83 Chunghwa Road
Taipei
Chairman: Jerome Hu
- G Institute of Oceanography
National Taiwan University
Taipei
Director: Ju Chin-chen
- G Chinese Earthquake Research Center
Academia Sinica
P.O. Box 58937
Taipei
Director: Yi-ben Tsai
- C Ministry of the Interior
Roosevelt Road
Taipei
- G, C Geological Survey of Taiwan
P.O. Box 1001
Taichung 400
Director: Biq Ching-chang
- H Water Resources Planning Commission
Ministry of Economic Affairs
Taipei
Chairman: Fung Chung-yue

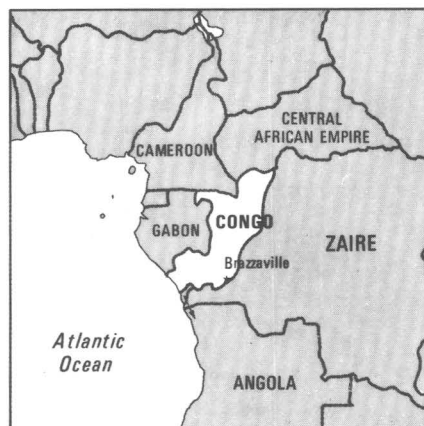
COLOMBIA



(See reference map III)

- G Instituto Nacional de Investigaciones
Geológico-Mineras
Carrera 30, No. 51-59
Apartado Nacional 2504
Bogotá, D.E.
Director: Alberto Alvarez O.
- C Instituto Geográfico "Agustin Codazzi"
Avenida Ciudad de Quito 48-51
Bogotá, D.E.
Director: Alvaro González Fletcher

CONGO

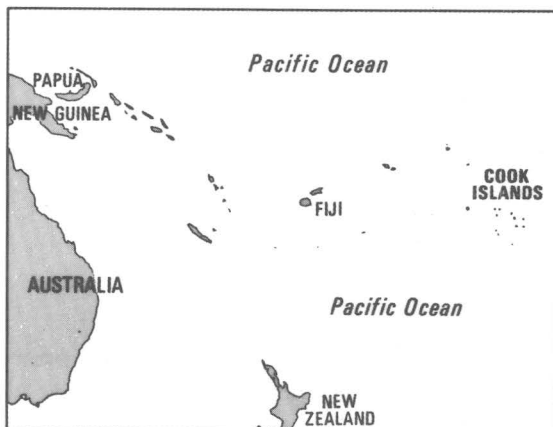


(See reference map VI)

- G Office de la Recherche Scientifique et
Technique Outre-mer
Centre Oceanographique ORSTOM de
Ponte-Noire¹
B.P. 1286
Pointe Noire
Director: J. C. le Guen
- G Service des Mines et de la Géologie
B.P. 12
Brazzaville
- G Bureau de Recherches Géologiques et
Minières (BRGM)¹
B.P. 431
Brazzaville
Director: M. Nicault
- C Institut Géographique National Centre
en Afrique Equatoriale¹
B.P. 125
Brazzaville
- C Service Topographique et du Cadastre
Agence de Brazzaville
B.P. 125 Route du Djové
Brazzaville
Director: Mr. Antoine Ondima

¹ Designates French research organization, without governmental affiliation.

COOK ISLANDS



(See reference map VIII)

- G Premier's Department
Raratonga
Secretary: G. H. Sawtell
- G, C Department of Survey and Physical
Planning
Secretary of Survey and Physical Planning
Raratonga
Secretary: G. Cowan

COSTA RICA



(See reference map II)

- G Departamento de Geología
Instituto Costarricense de Electricidad
(ICE)
Apartado 10032
San José
Chief: Jorge E. Umaña
- G Departamento de Desarrollo Geológico y
Recursos Minerales
Corporación Costarricense de Desarrollo
(CODESA)
Apartado 10323
San José
Director: Rolando Castillo M.

- C, G Instituto Geográfico Nacional
Apartado 2272
San José
Director: Fernando M. Rudín Rodríguez
- H Servicio Nacional de Aguas Subterráneas
(SENAS)
Apartado 5262
San José
Director: Alvaro Suarez M.
- R, G Dirección de Geología, Minas y Petróleo
Ministerio de Economía e Industria
Apartado 10216
San José
Director: Luis Felipe Sandoval Molina

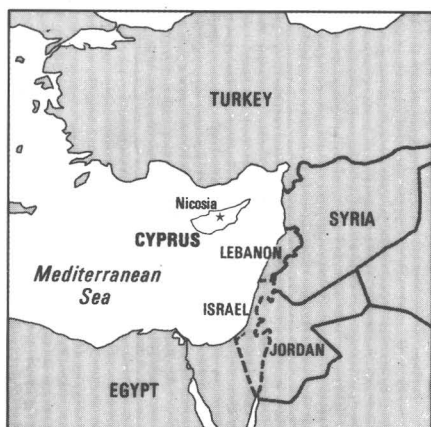
CUBA



(See reference map II)

- G Instituto de Geología
Academia de Ciencias de Cuba
Ave. Van-Troi no. 17203
Rancho Boyeros—Apartado Postal 10
La Habana
Director: Jesus F. de Albear Franquiz
- G Instituto Nacional de Recursos Minerales
(IRCM)
O'Reilly y Aguacate
La Habana
Director: Salvador Salas
- C Instituto Cubano de Geodesia y Cartografía
Loma y 39
Nuevo Vedado
La Habana
- H Instituto Nacional de Recursos Hidráulicos
(INRH)
Humboldt 106 esp. P.
Vedado
La Habana
Director: Faustino Pérez Hernández

CYPRUS



(See reference map V)

- G Geological Survey Department
Ministry of Agriculture and Natural Resources
P.O. 809
Nicosia
Director: Yiannos Cos Hadjstarvrinou
- C Department of Lands and Surveys
Ministry of the Interior
Nicosia
Deputy Minister: Andreas Christofi
- H Water Development Department
Ministry of Agriculture and Natural Resources
Nicosia
Director: Christos Antoniou Konteatis

CZECHOSLOVAKIA

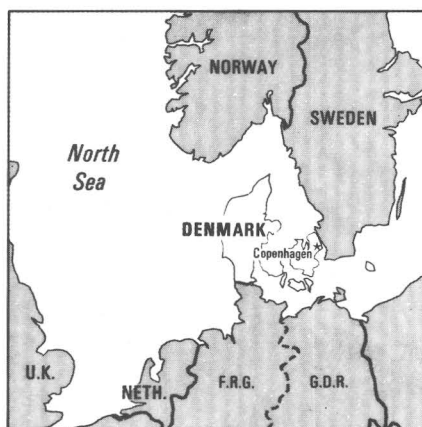


(See reference map IV)

- G Ústav Geologický
[Geological Institute]
Ceskoslovenská Akadémie Ved
[Czechoslovak Academy of Sciences]
Lysolaje 6
Posta Suchbát 2
Praha 6

- G Ústředni Ústav Geologický
Malostranské náměstí 19
118 21 Praha 01
Director: Vladimír Šibrava
- C Geodetická a Kartografická Správa
[Geodetic and Cartographic Administration]
Arbesovo Nam. 4
Praha 5—Smíchov
- C Vojenský Zeměpisný Ústav
Vyznamenaný Řádem Rudé Hvězdy
Praha 6
- H Hydrometeorologický Ústav
[Surface and Ground Water Resources]
Holečkova 8
Praha 5
Director: J. Zitek

DENMARK

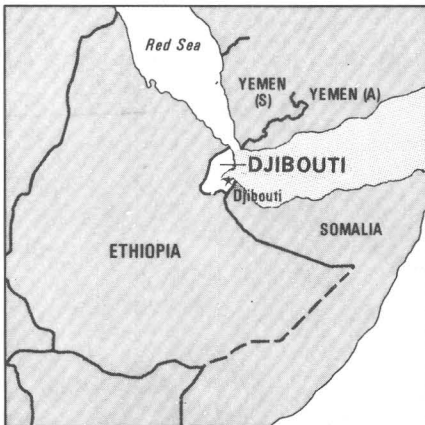


(See reference map IV)

- G Energistyrelsen
Ministry of Commerce
Strandgade 29
1401 København
Director: Hans von Bulow
- G Danmarks Geologiske Undersøgelse
Thoravej 31
DK 2400 København N.V.
Director: Ole Berthelsen
- G, C, H Ministeriet for Grønland
5. Kontor
Hausergade 3
DK København K
Chief: Gert Vigh
- C Geodætisk Institut
Rigsdagsgaarden 7
1218 København K
Director: Flemming Wiinblad
- R Handelsministeriet
[Ministry of Commerce]
2. Afd. 8. Kontor

Slotholmsgade 12
1216 København K
Chief: Hagen Jørgensen

DJIBOUTI (formerly French Territory of AFARS and ISSAS)



(See reference map VI)

- G Services de Travaux Publics
Djibouti

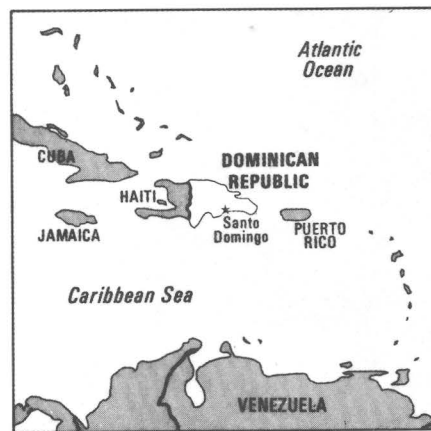
DOMINICA



(See reference map II)

- G Department of Trade and Industry
Roseau
Permanent Secretary: Arlington Riviere

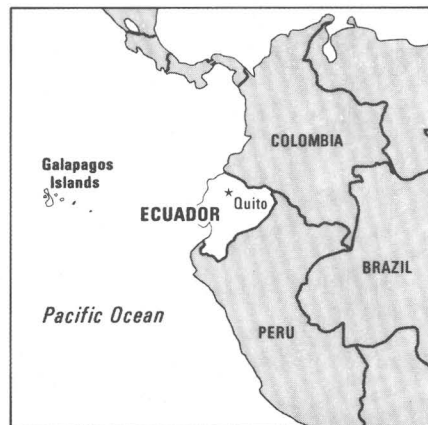
DOMINICAN REPUBLIC



(See reference map II)

- G Dirección de Minería
Secretaría de Estado de Fomento
Santo Domingo
- G Instituto de Investigaciones
Geográficas y Geológicas
Universidad de Santo Domingo
Santo Domingo
- C Instituto Cartográficas Militar de las
Fuerzas Armadas
Santo Domingo
Director: Jose J. Hungría M.
- C Instituto Geográfico Universitario
Calle El Conde No. 2
Santo Domingo
Director: José J. Hungría M.

ECUADOR

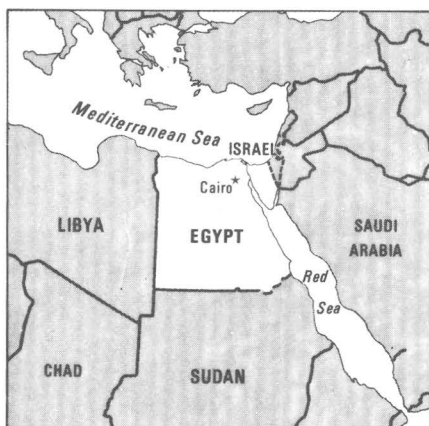


(See reference map III)

- G Dirección General de Geología y Minas
Ministerio de Recursos, Naturales y
Energéticos
Carrion #1016 y Páez
Quito
Director-General: Rodrigo B. Alvarado

- C Instituto Geográfico Militar
Barrio El Dorado
Apartado 2435
Quito
Director: Mario E. Jiménez Montero
- H Dirección Nacional de Meteorología y
Hidrología
Avenida 10 de Agosto 2627
Quito
Director: Eduardo Mancheno García
- R Dirección General de Hidrocarburos
Avenida 10 de Agosto 666
Quito
Director General: Gonzalo Sánchez L.

EGYPT



(See reference map V)

- G Helwan Observatory
c/o Academy of Scientific Research
and Technology
101 Kasr El Ainy Street
Cairo
Director: Mohamed Fahim
- G Geological Survey and Mining Authority
Ministry of Industry
Abbassia Post Office
Cairo
Chairman: Galal Moustafa
- G, H Academy of Scientific Research and
Technology
101 Kasr El Aini Street
Cairo
President: Abdel Moneim Abu El-Azm
- C Aerial Survey of Egypt
308 El-Haram Street
Giza
- C Survey Department
20 Bagdad Street, Giza
Cairo
Director: Ibrahim Mostafa Ganem

- H Hydrological Research Station
Kanater-al-Khaiyria Barrages
Cairo
Director: A. A. El-Darwish
- R General Petroleum Co.
Dr. Mustafa Abu Zahra Street
Nasr City
Cairo
Head: Ahmend El-Barkouki

EL SALVADOR



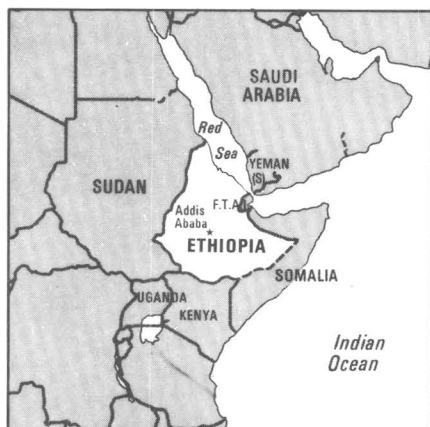
(See reference map II)

- G Centro de Investigaciones Geotécnicas
Ministerio de Obras Públicas
Avenida Peralta, final, costado Oriente
Talleres El Coro
San Salvador
Director: Mauricio Aquino Herrera
- G Comision Nacional del Petroleo
Ministerio de Planificación
3a Calle Poniente 1225
San Salvador
Executive Secretary: José Mario Falconio
- C Instituto Geográfico Nacional "Ing. Pablo
Arnoldo Guzmán"
Ministerio de Obras Publicas
Calle Juan Bertis No. 79
San Salvador
Director: Jose Alberto Gonzalez García
- C Ministerio de Obras Publicas
Placio Nacional
San Salvador
Minister: Antonio Jorge Seaman Soto
- H Direccion General de Riego y Drenaje
Ministerio de Agricultura y Ganaderia
Edificio OXGASA
25a Avenida Norte
San Salvador
Director: Andrés Solórzano Burgos
- H Direccion General de Recursos Naturales
Renovables
Canton El Matazano
Soyapango

H Servicio Meteorológico Nacional
Ministerio de Agricultura y Ganadería
Cantón El Matazano
Soyapango
Chief: José Humberto Guzman Luna

H Ministerio de Agricultura y Ganadería
Boulevard Los Heroes y 21a
Calle Poniente
San Salvador
Minister: Roberto Escobar García

ETHIOPIA



(See reference map VI)

G Ethiopian Geological Survey Institute
Ministry of Mines, Energy and Water
Resources
P.O. Box 486
Addis Ababa

G, H, R Natural Resources Division
UNECA
Africa Hall
P.O. Box 3001
Addis Ababa
Chief: David P. S. Wasawo

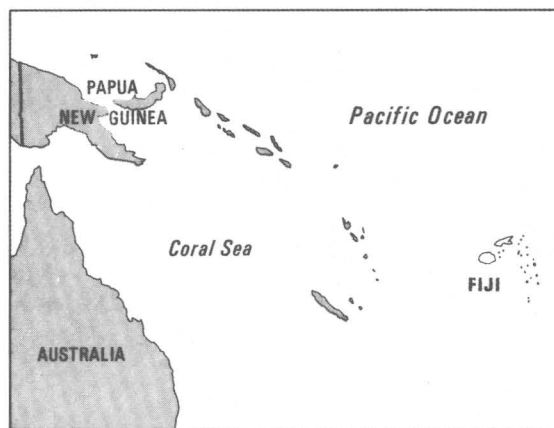
C Cartography Unit
UNECA
Africa Hall
P.O. Box 3001
Addis Ababa
Chief: E. K. Nyakana

C Ministry of Land Reform and
Administration
Mapping and Geography Department
P.O. Box 597
Addis Ababa
Director: Ato Taya Reta

H Ethiopian Water Resources Department
Authority
Ministry of Mines, Energy, and Water
Resources
P.O. Box 1008
Addis Ababa

R Ministry of Mines, Energy and Water
Resources
P.O. Box 486
Addis Ababa
Minister: Ato Izzedin Ali

FIJI



(See reference map VIII)

G Mineral Resources Division
Private Mail Bag, G.P.O.
Government Buildings
Suva
Director: Ronald M. Richmond

C Ministry of Lands and Mineral Resources
Lands and Surveys Division
P.O. Box 2222,
Government Buildings
Suva
Director: Bahwan Dutt

H Public Works Department
Government Buildings
Suva
Assistant Director (Hydrology): A. Reid

R Minerals Policy Division
Central Planning Office
Government Planning
Suva
Director: Akuila Suva

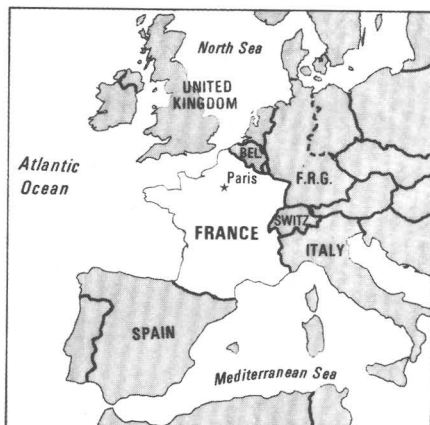
FINLAND



(See reference map IV)

- G Geologinen Tutkimuslaitos
02150 Espoo 15
Director: Herman Stigzelius
- C National Board of Survey
Kirkokkatu 3
00170 Helsinki 17
Director: Mr. Osmo Niemela
- C Geodeettinen Laitos
[Geodetic Institute]
Pasilankatu 43A
00240 Helsinki 24
Director: T. J. Kukkamaki
- H National Board of Public Roads and
Waterways Construction
Et. Esplanadikatu 4
00130 Helsinki 13
Director: Niskala

FRANCE

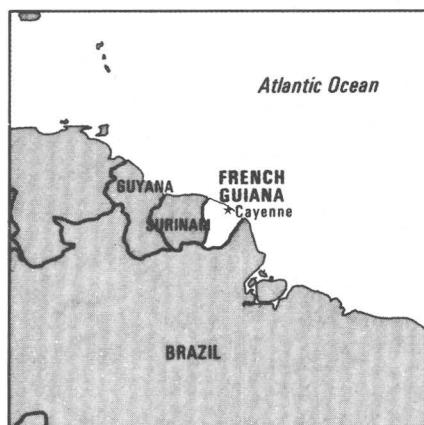


(See reference map IV)

- G Centre National de la Recherche
Scientifique
15 Quai Anatole France
75700 Paris
Director: Robert Chabbal

- G Bureau des Recherches Géologiques et
Minières (BRGM)
B.P. 6009
45018 Orleans Cedex
Director: Paul Bourrelier
- G Institut Français du Pétrole
4 Avenue de Bois-Preau
92502 Rueil Malmaison
Director: J. C. Balaceanu
- G, H Office de la Recherche Scientifique et
Technique Outre-Mer (ORSTOM)
[Office of Scientific and Technical
Research Overseas]
24 rue Bayard
75008 Paris
President: Pierre Abelin
- C Service de Documentation et de
Cartographie Géographiques
191 rue Saint Jacques
75800 Paris
Director: Roger Brunet
- C Institut Géographique National
136 bis Rue de Grenelle
75700 Paris
Director: René Mayer
- H Electricité de France
134 Boulevard Haussmann
75336 Paris Dex 08

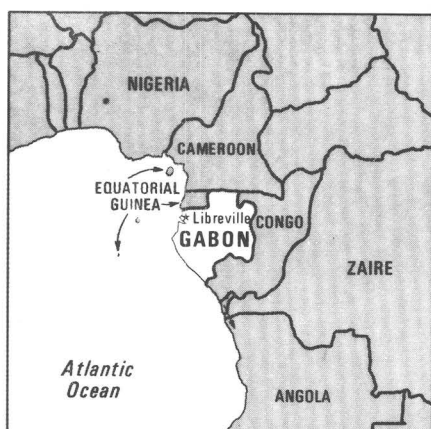
FRENCH GUIANA



(See reference map III)

- G Bureau des Recherches Géologiques et
Minières
B.P. 42
Cayenne

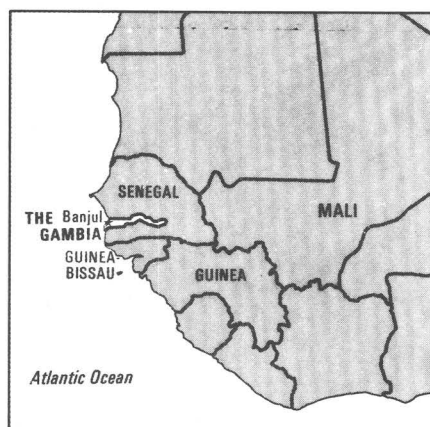
GABON



(See reference map VI)

- G, C Bureau de Recherches Géologiques et Minières (BRGM)¹
B.P. 175
Libreville
Director: M. Arnould
- H Office de la Recherche Scientifique et Technique Outre-mer, Centre ORSTOM de Libreville¹
B.P. 3115
Libreville
Director: D. Martin
- R Direction des Mines et de la Géologie
Ministère de Mines, d'Industrie, d'Énergie, et de Ressources Hydrauliques
B.P. 175
Libreville
Director: M. Arnould
Ministre: P. Ampaba-Gouaranque

THE GAMBIA



(See reference map VI)

- C Survey Department
Bathurst

¹ Designates French research organization, without governmental affiliation.

H Department of Hydrometeorological Services
7 Marina Parade, Banjul
Director: M. A. K. John

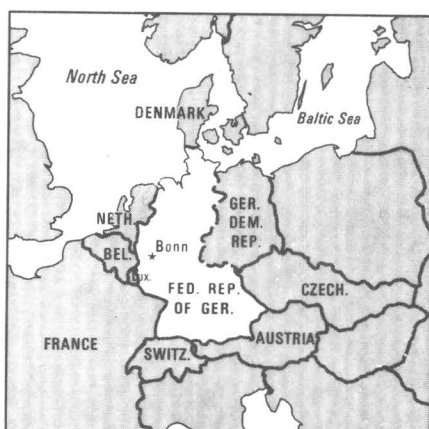
GERMAN DEMOCRATIC REPUBLIC (EAST)



(See reference map IV)

- G Zentrale Vorratskommission für Mineralogische Rohstoffe
Invalidenstrasse 44
104 Berlin
- G Zentrales Geologisches Institut
Invalidenstrasse 44
104 Berlin
Director: Karl Schmidt
- G Gesellschaft für Geologische Wissenschaften der DDR
Invalidenstrasse 43
104 Berlin
- C Institut für Bodenkunde
Abt. Standortkartierung
Clara-Zetkin-Strasse 105
108 Berlin
- C Deutsche Bucherei
Abteilung Beschaffung
Dienststelle für Schriften des Auslandes
Deutscher Platz, Leipzig C 1 (EX)
- H Institut für Wasserwirtschaft
Schnellerstrasse 140
119 Berlin
- H Kammer der Technik
Fachverband Wasser
Clara-Zetkin-Strasse 115/117
108 Berlin

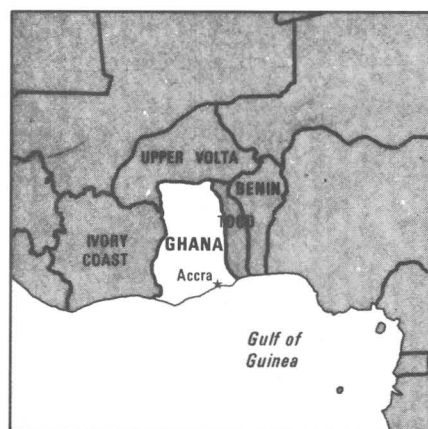
GERMANY, FEDERAL REPUBLIC OF



(See reference map IV)

- G, C, H Bundesminister der Verteidigung
Streitkraefteamt
Militaerisches Geowesen
Theaterplatz 12-18
5300 Bonn-Bad Godesburg
President: Gerhard Lenz
- G, R Bundesanstalt für Geowissenschaften
und Rohstoffe (BGR)
Alfred-Bentz-Haus
Postfach 510153
Stilleweg 2
3000 Hannover 51
President: Friedrich N. Bender
- C Arbeitsgemeinschaft der Vermessungsver-
waltungen der Laender der Bundesrepub-
lik Deutschland (AdV)
Warmbuechenkamp 2
3000 Hannover 1
- C Institut für Angewandte Geodaesie
Richard-Strauss-Allee 11
6000 Frankfurt am Main 70
Director: Rudolf Foerster
- H Deutsches Hydrographisches Institut
(DHI)
Bernhard-Nocht-Strasse 78
2000 Hamburg 4
President: G. Zickwolff
- H Bundesanstalt für Gewaesserkunde
Kaiserin-Augusta-Anbagen
5400 Koblenz
President: Herbert Knoepp

GHANA



(See reference map VI)

- G Industrial Research Institute
C.S.I.R.
P.O. Box M 32
Accra
Director: E. Lartey
- G Geological Survey of Ghana
P.O. Box M 80
Accra
Director: G .O. Kesse
- C Ghana Geographical Association
University of Ghana
Legon
President: K. B. Dickson
- C Survey Division
P.O. Box 191
Cantonments
Accra
Chief Survey Officer: P. Opere-Addo
- H Water Resources Research Unit
Council for Scientific and Industrial
Research
P.O. Box M 32
Accra
Officer in charge: L. G. Quist
- C Buildings and Roads Research Institute
C.S.I.R.
P.O. Box 40
University Post Office
Kumasi
Director: J. W. S. de Graft Johnson

GREECE



(See reference map IV)

G Institute of Geological and Mining Research
70 Messoghion Street
Athens 608

C Hellenic Army Geographical Service
3 Evelpidon Street
Athens 801
Commanding Officer: Dimitrios Rizodimos
(EYPE)

R National Petroleum Products Service
Ministry of Industry
80 Michalacopoulou Street
Athens 611
Director General: Socrates Potamianos

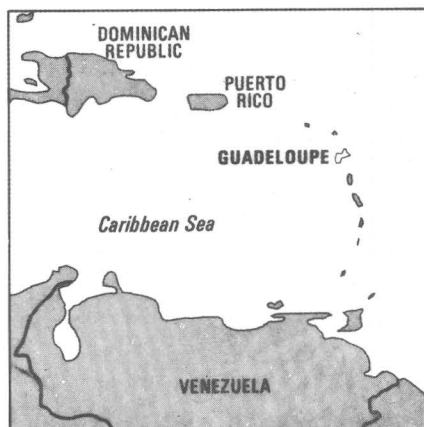
GREENLAND



(See reference map I)

G Grønlands Geologiske Undersøgelser
Ostervoldgade 5-7, Tr. KL
DK-1350 København, K, Denmark
Director: Ellitsgaard-Rasmussen

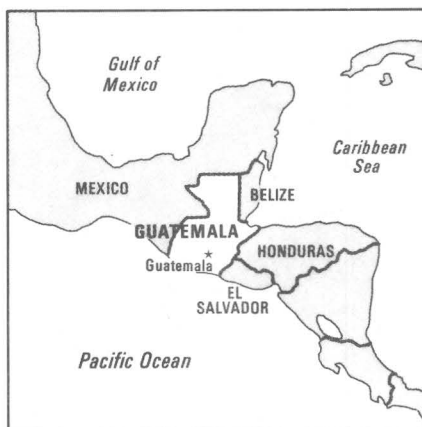
GUADELOUPE



(See reference map II)

G Arrondissement Minéralogique de la
Guyane
B.P. 448
Pointe-a-Pitre
Guadeloupe

GUATEMALA



(See reference map II)

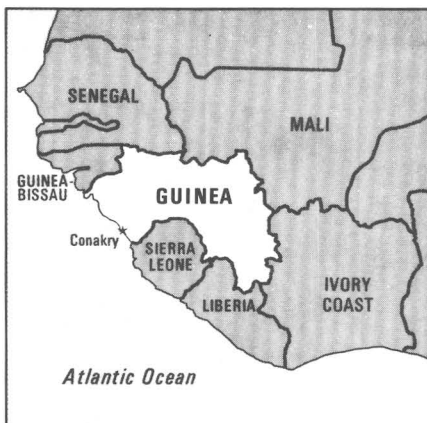
G Instituto de Sismología, Vulcanología,
Meteorología, e Hidrología
7 Avenida 14-47, Zona 13
Guatemala
Director: Claudio Urrutia

G División de Geología
Instituto Geográfico Nacional
Avenida las Américas 5-76, Zona 13
Guatemala City
Director: Oscar Daniel Salazar

G, R Dirección General de Minería e
Hidrocarburos
Diagonal 17,
28-30 Calle, Zona 11
Guatemala City
Director General: Jorge Luis Monzón

C Instituto Geográfico Nacional
Avenida las Américas 5-76, Zona 13
Guatemala City
Director: René Aguilez Morales

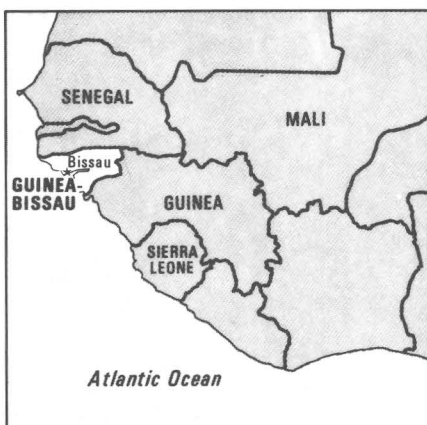
GUINEA



(See reference map VI)

G Services des Mines et de la Géologie
Conakry

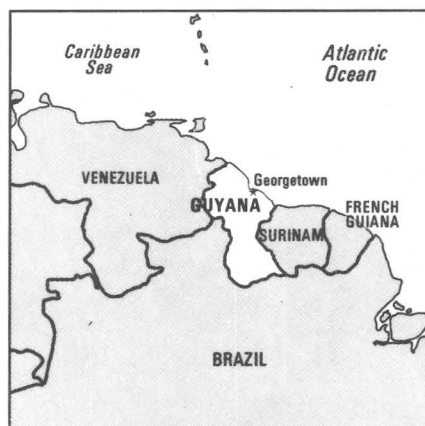
GUINEA-BISSAU (formerly PORTUGUESE GUINEA)



(See reference map VI)

G Serviços de Geologia e Minas
Caixa Postal 399
Bissau

GUYANA



(See reference map III)

G Geological Surveys and Mines Department
P.O. Box 1028
Georgetown
Commissioner of Geology and Mines:
M. A. Lee

C Cartography Section, Lands Division
Ministry of Agriculture and Natural
Resources
Victoria Law Courts
Georgetown

H Ministry of Works and Hydraulics
Georgetown

HAITI



(See reference map II)

G Service Géologique
Department of Agriculture, Natural
Resources, and Rural Development
Damiens près Port-au-Prince

C Service de Géodesie et de Cartographie
Boulevard Harry Truman
Port-au-Prince
Director: Raymond B. Oriol

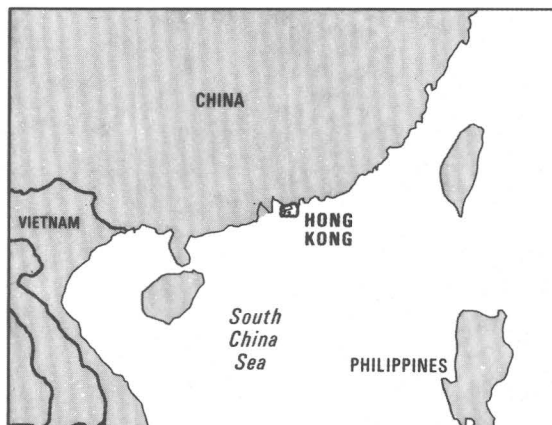
HONDURAS



(See reference map II)

- G Exploracion Geotérmica
Empresa Nacional de Energía Eléctrica
(ENEE)
Apartado 99
Tegucigalpa
Chief: Werner Hugo Falck C.
- G, C, R Dirección General de Minas e
Hidrocarburos
Ministerio de Recursos Naturales
Boulevard a la Colonia Kennedy
Tegucigalpa, D.C.
Director-General: Pedro Garcia Ugarte
- C Instituto Geográfico Nacional (IGN)
Apartado Postal 758
Comayaguela
Tegucigalpa
Director-General: Fernando Lanza
Sandoval
- H Servicio Autónomo Nacional de Acueductos
y Alcantarillados (SANNA)
Apartado Postal 437
Tegucigalpa, D.C.
Director-General: Rubén Flores Guillén
- H Dirección General de Operaciones
Agrícolas
Servicios Hidrológicos y Climatológicos
Ministerio de Recursos Naturales
Apartado Postal 309
Tegucigalpa, D.C.
Director-General: Arturo Galo Galo

HONG KONG



(See reference map VII)

- G Mines Department, Branch Office
Canton Road Government Offices
Canton Road
Kowloon
Superintendent of Mines: Borhylen Wang
- G Department of Geography and Geology
University of Hong Kong
Hong Kong

HUNGARY



(See reference map IV)

- G Magyar Allami Földtani Intézet
[Hungarian State Geological Institute]
Népstadion-ut 14, Pf. 106
Budapest 1442
Director: Jozsef Konda
- G Magyar Allami Eötvös Loránd Geofizikai
Intézet
[Hungarian Geophysical Institute]
Kolombusz p. 17-23
Budapest XIV
Director: Pál Müller
- G Magyar Tudományos Akadémia
Geokémiai Kutató Laboratóriuma

- [Geochemical Research Laboratory
Museum-krt. 4/a
Budapest 1088
Director: Elemér Szadeczky-Kardoss
- G, C Magyar Tudományos Akadémia
Geodéziai és Geofizikai Kutató Intézete
[Geodetic and Geophysical Research]
Múzeum u. 6
Sopron 9400
Director: Jozef Somogyi
- C Geodetic and Cartographic Society
Anker Koz 1
1061 Budapest, VI
- C M.B.M. Országos Földügyi és Térképészeti
Hivatal
[National Cadaster and Cartography
Bureau]
Kossuth Lajos tér 11
Budapest V
- H Vizgazdálkodási Tudományos Kutató
Intézet
[Research Institute for Water Resources
Development]
Rákóczi út 41
Budapest 1088
Director: Károly Stelczer

ICELAND

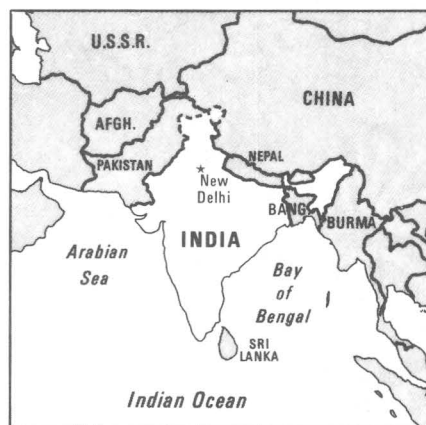


(See reference map IV)

- G National Energy Authority of Iceland
Laugavegi 116
Reykjavik
Director: Jakob Björnsson
- G Department of Natural Heat
National Energy Authority
Laugavegi 116
105 Reykjavik
Head: Gudmundur Pálmason
Chief Geologist: Jon Jonsson

- G Department of Economic Geology
National Energy Authority
Laugavegi 116
105 Reykjavik
Head: Guttormur Sigbjarnarson
Chief Geologist: Freysteinn Sigurdsson
- G Nordic Volcanological Institute
University Geosciences Building
v/Hringbraut
Reykjavik
Director: Gudmundur E. Sigvaldason
- G Department of Geology
Museum of Natural History
Hverfisgötu 116
105 Reykjavik
Curator: Sveinn P. Jakobsson
- G Marine Research Institute
Skulagötu 4
Reykjavik
Director: Jón Jónsson
- C Icelandic Geodetic Survey
Laugavegi 178
105 Reykjavik
Director: Bragi Gudmundsson
- H Department of Hydrology
National Energy Authority
Laugavegi 116
105 Reykjavik
Head: Sigurjón Rist

INDIA



(See reference map VII)

- G Central Fuel Research Institute
Council of Scientific and Industrial
Research
P.O. Fri, District Dhanbad
Bihar
Director: M. G. Krishna
- G Central Mining Research Station
Dhanbad-826001
Director: S. Bagchi

- G National Institute of Oceanography
Dona Paula Road, Panaji
Caranzelam P.O. 403301
Goa
Director: C. A. Quasim
- G National Geophysical Research
Institute
Uppal Road
Hyderabad 560007
Director: Hari Narain
- G Geological Survey of India
27 Jawaharlal Nehru Road
Calcutta 700013
Director General: V. K. S. Varadan
- G Oil and Natural Gas Commission
Tel Bhavan
Dehra Dun 248001
Chairman: N. B. Prasad
- G Atomic Minerals Division
Department of Atomic Energy
Begumpet
Hyderabad 560016
Director: G. R. Udas
- G, C, H National Remote Sensing Agency
Department of Science and Technology
No. 4 Sardar Patch Road
Secunderabad 500003
Andhra Pradesh
Director: K. R. Rao
- C Survey of India
Surveyor General Office
P.O. Box 37
Dehra Dun
Surveyor General of India: K. L. Khosla
- C Geodetic and Geophysical Surveys
Survey of India
Dehra Dun
Director: J. Chatterjee
- H Central Ground Water Board
Ministry of Agriculture
Department of Agriculture
Krishi Bhavan
New Delhi 110001
Chairman: S. K. Banerjee
- H Central Water Commission
Bikaner House, Shehjan Road
New Delhi 110011
Chairman: Y. K. Murthy
- H India Meteorological Department
Lodi Road
New Delhi 110003
Director-General: Y. P. Rao
- R Ministry of Petroleum, Chemicals and
Fertilizers

Shastri Bhavan
Dr. Rajendra Prasad Road
New Delhi 1
Minister: H. N. Bahuguna

- R Ministry of Steel and Mines
Udyog Bhawan
New Delhi 110011
Minister: Biju Patnaik

INDONESIA



(See reference map VII)

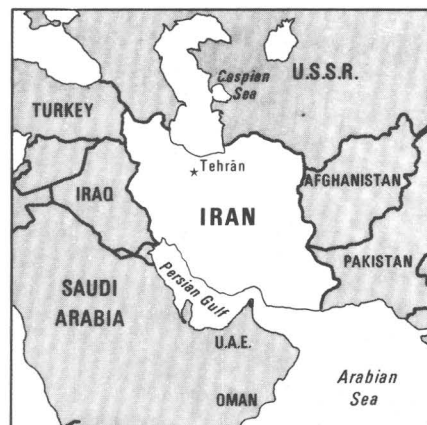
- G Lembaga Meteorologi dan Geofisik
[Meteorological and Geophysical Institute]
Jalan Arif Rachman Hakim 3
Jakarta
Director: W. E. Sijatauw
- G, C, H Balai Fotogrametri
[Institute of Photogrammetry]
Ministry of Defense
Djalan Gunung Sahar 90
Djakarta
Head: R. E. Beaupain
- G, C, H Geological Survey of Indonesia
Jalan Diponegoro 57
Bandung
Director: Salman Padmanegara
- G, C, H, R Departemen Pertambangan
[Department of Mining]
Jl. Merdeka Selatan 18
Jakarta
Minister: Mohamad Sadli
Secretary-General: Soetarjo Sigit
- G, R Direktorat Jenderal Pertambangan
(Directorate General Mining)
Jl. Merdeka Selatan #18
Jakarta
Director General of Mines: John A. Katili
- G, R Direktorat Jenderal Minyak dan Gas Bumi
(MIGAS) (Directorate General Oil and
Gas)
Jl. M. H. Thamrin No. 1

Jakarta
 Director: Ir. Wijarso

Minister: Ir. Sutami
 Secretary-General: E. Sungkono

- G, R Lembaga Minyak dan Gas Bumi
 (LEMIGAS) (Indonesian Petroleum
 Institute)
 Jl. Cipulir, Kebayoran Lama
 Jakarta
 Director: Wahjudi Wisaksono
- G, H Lembaga Nasional Geologi dan
 Pertambangan
 [National Institute of Geology and Mining]
 Jalan Cisit 21/154 D
 Bandung
 Director: F. Hehuwat
- C Lembaga Pemetaan Nasional, LATANAS
 [National Mapping Institute]
 Ministry of State for Research
 Jalan Imam Bonjol 58
 Jakarta
 Head: Pranoto Asmoro
- C Jawatan Topographie, JANTOP
 [Army Topographic Service]
 Jalan Gunung Sahari 90
 Jakarta
 Head: Slamet Hadi
- C Direktorat Tata Guna Tanah
 [Directorate of Land Use]
 Departemen Dalam Negeri
 Jalan Singamangaraja 2
 Kebayoran, Jakarta
 Debayoran
 Director: I. Made Sandy
- C Surta ABRI
 [Armed Forces Mapping Agency]
 Jalan Dr. Wahidin I/11
 Jakarta
 Head: Pranoto Asmoro
- C Badan Kordinasi Survey and Pemetaan
 Nasional, BAKOSURTANAL
 [National Survey and Mapping Coordina-
 tion Agency]
 Jalan Dr. Wahidin I/11
 Jakarta
 Head: Pranoto Asmoro
- H Hydro-Oceanographic Department
 JANHIDROS
 Jalan Gunung Sahari 87
 Jakarta
 Hydrographer: Admiral Pardjanan
- H Departemen Pekerjaan Umum dan Tenaga
 Listrik
 [Department of Public Works and
 Electric Power]
 Jalan Pattimura 20
 Kebayoran, Jakarta

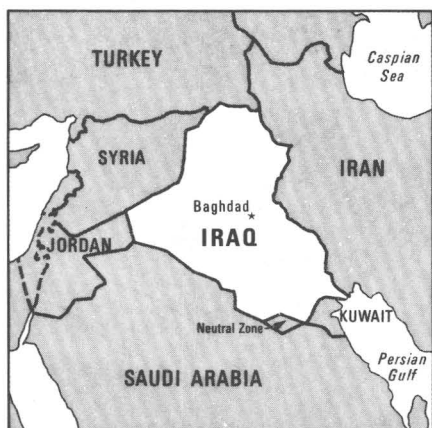
IRAN



(See reference map V)

- G Geological Survey of Iran
 Ministry of Industry and Mines
 P.O. Box 1964
 Tehrān
 Managing Director: R. Assafi
- C National Cartographic Centre
 P.O. Box 1844, Mahrabad
 Tehrān
 Director: J. Shafee
- C National Geographic Organization
 Imperial Iranian Army
 Tehrān
 Director: Mahmoud Sadeghian
- H Institute of Hydro-Sciences and Water
 Resources Technology
 64 Ghadessi Street, North
 Boulevard Elizabeth
 Tehrān
 Director: M. Mozayeny
- H Ministry of Water and Power
 Tehrān
 Minister: Mansour Rohani

IRAQ



(See reference map V)

- G Department of Geological Survey and Mineral Investigation
Ministry of Oil
P.O. Box 986
Alwiyah, Baghdad
- G Petroleum Research Institute
Shalijiah
Baghdad
Director: Abood Al-Khafaji
- C Survey Department
Directorate General of Surveys
Baghdad
Director: Fuad Mohamad Ali Al-Hakim
- H Institute of Research on Natural Resources
Abu Chraib
Baghdad
Director: Abood Al-Khafahji
- R Ministry of Oil and Minerals
Baghdad
Minister: Saddoon Hammadi

IRELAND



(See reference map IV)

- G Geological Survey Of Ireland
14 Hume Street
Dublin 2
Director: C. E. F. Williams
- C Ordnance Survey of Ireland
Phoenix Park
Dublin 8
Assistant Director: M. C. Walsh
- R Establishment and Fuel and Power Division
Department of Transport and Power
Kildare Street
Dublin 2
Principal Officer: D. S. O'Maolain

ISRAEL



(See reference map V)

- G Geological Survey of Israel
30 Malchei Israel Street
Jerusalem
Director: Eliahu Zohar
- G, H Institute for Petroleum Research and Geophysics
P.O. Box 269
Holon
Managing Director: Z. Benari
- C Department of Surveys
Ministry of Labor
P.O. Box 622941, 1 Rechor Lincoln
Tel Aviv
Director: Ron Adler
- H Hydrological Service
Jerusalem
- H Tahal-Water Planning for Israel
Tel Aviv
Director General: Aaron Weiner
- R Ministry of Development
38 Keren Hayesod Street
Jerusalem
Petroleum Commissioner: Moshe Ettinger

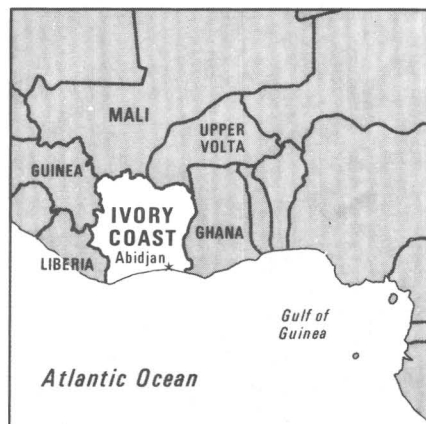
ITALY



(See reference map IV)

- G Istituto Internazionale per le Ricerche Geotermiche
Lungarno Pacinotti 55
Pisa
Director: Learco Taffi
- G Istituto Internazionali di Vulcanologia
Viale Regina Margherita 6
Catania
Director: G. Marinelli
- G Servizio Geologico d'Italia
Ministero dell'Industria del Commercio e dell'Artigianato
Direzione Generale della Miniere
Largo di Santa Susanna 13
Roma
Director: Alfredo Iacobacci
- G Osservatorio Vulcanologico Vesuviano
Ercolano (Napoli)
Director: Paolo Gasparini
- C Istituto Geografico Militare
Via Cesare Battisti 10
Firenze
Director: Celestino Revelli
- C Istituto Idrografico della Marina
Passo Osservatorio 4
Genova
- R Ministero Industria e Commercio e Artigianato
Direzione Generale dell'Industrie di Base e delle Fonti di Energia
Via Molise 43
Roma

IVORY COAST



(See reference map VI)

- G Direction des Mines et de la Géologie
Ministère des Mines
B.P. V 28
Abidjan
Director: Paul Abui
- G Direction des Hydrocarbures
Ministère des Mines
B.P. V 42
Abidjan
Director: René Brancart
- G, C Société pour le Développement Minier de la Côte d'Ivoire (SODEMI)
B.P. 2816
Abidjan
Director: B. L. Berthoumieux
- G, R Société Nationale d'Opérations Pétrolières de la Côte d'Ivoire (PETROCI)
Ministère des Mines
B.P. V 194
Abidjan
Director-General: Adama Toungara
- C Institut Géographique de Côte d'Ivoire (IGCI)
Ministère des Travaux Publics et des Transports
B.P. V 6
Abidjan
Director: Alpha Cissé
- C Ministère des Travaux Publics et des Transports
Direction de l'Institut Géographique
B.P. V 6
Abidjan
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: M. Adou

R, G, C Ministère des Mines
B.P. V 50
Abidjan
Minister: Paul Gui Dibo

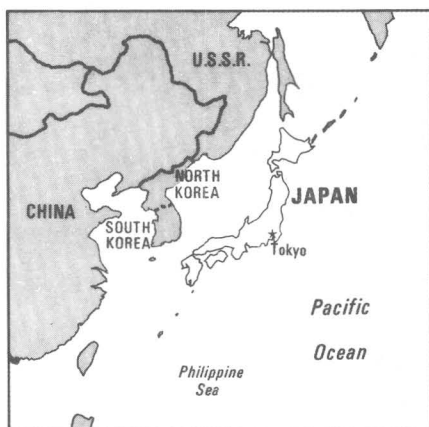
JAMAICA



(See reference map II)

- G Geological Survey Department
Hope Gardens
Kingston 6
- C Survey Department
P.O. Box 493
Kingston
- H National Water Authority
Kingston
Secretary-Manager: Clinton Davis

JAPAN



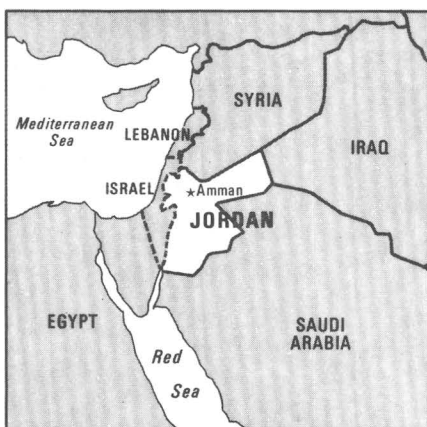
(See reference map VII)

- G Nippon Kazan Gakki
[Volcanological Society of Japan]
Earthquake Research Institute
University of Tokyo
1-1 Yayoi-cho 1-chome

Bunkyo-ku
Tokyo
President: Kenzo Yagi

- G Resources Survey Institute
Science and Technology Agency
2-2-1 Kasumigaseki
Chiyoda-ku
Tokyo 100
Director: Nobuyuki Makimura
- G Public Works Research Institute
Ministry of Construction (includes
engineering geology)
2-28-32 Honkomagome Bunkyo-ku
Tokyo 113
Director: Kaoru Ichihara
- G Earthquake Research Institute
University of Tokyo
1-1-1 Yayoi 1-chome
Bunkyo-ku
Tokyo 113
Director: Yutaka Osawa
- G Agency of Natural Resources and Energy
Ministry of International Trade and
Industry
1-3-1 Kasumigaseki, Chiyoda ku
Tokyo 100
Director: Riichi Hashimoto
- G, H Geological Survey of Japan, Ministry of
International Trade and Industry (MITI)
135 Hisamoto-cho, Takatsu-ku
Kawasaki-shi, Kanagawa-ken 213
Director: Isamu Kobayashi
- C Geographical Survey Institute
Ministry of Construction
24-13, 3-chome
Higashiyama Meguro-ku
Tokyo 153
Director: Tetsuo Oshima
- H Water Resources Bureau
National Land Agency
Prime Minister's Office
1-6-19 Azabudai
Minato-ku
Tokyo 106
Director: Toshio Iizuka

JORDAN



(See reference map V)

- G Mines and Geological Survey Department
P.O. Box 39
Ministry of National Economy
Amman
Director: Kassem El Umari
- G Royal Scientific Society
P.O. Box 6945
Amman
President: Albert Butros
- G, C, H, R Natural Resources Activity
Box 7
Amman
Director General: Omar Abdullah
- C Department of Lands and Surveys
P.O. Box 70
Amman
Director: Badri Al-Mulqi
- C Jordan National Geographic Centre
P.O. Box 20214
Amman
Director: R. Majali

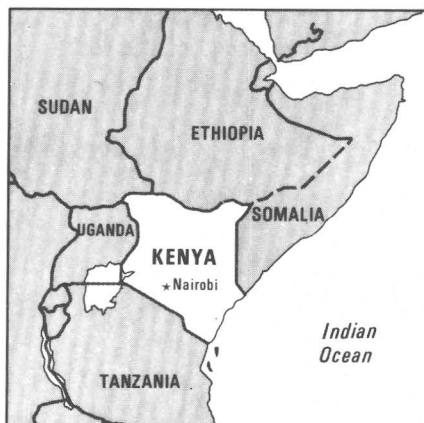
DEMOCRATIC KAMPUCHEA (formerly CAMBODIA)



(See reference map VII)

- G Mines and Mineral Prospecting
Ministry of Industry
Phnom Penh
Commissioner: Sean Pengse
- C Service Géographique du Cambodge
Phnom Penh, Ministry of Defense

KENYA

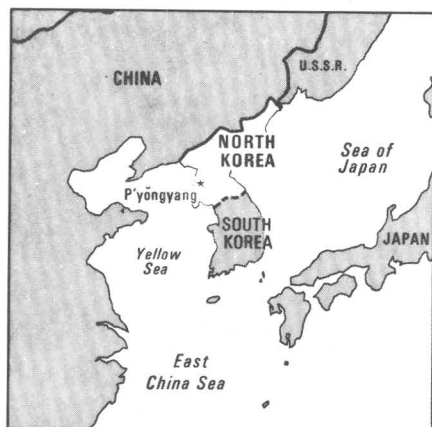


(See reference map VI)

- G Geological Survey of Kenya
Mines and Geological Department
Ministry of Natural Resources
P.O. Box 30009
Nairobi
Chief Geologist: D. B. Dow
- C Survey of Kenya
P.O. Box 30046
Nairobi
Director of Surveys: Romondi-Opuodho
- H Water Department
Ministry of Water Development
P.O. Box 30521
Nairobi
Director: E. A. Ngunya

R Ministry of Natural Resources
P.O. Box 30126
Nairobi
Deputy Secretary: D. Thiong'o

KOREA (NORTH)

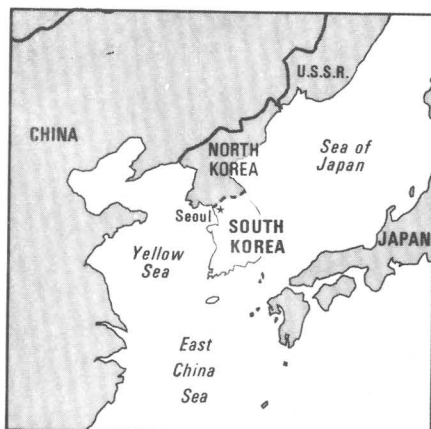


(See reference map VII)

G Geology and Geography Research Institute
Academy of Sciences
Mammoon-dong
Central District
P'yongyang
Director: Pak Sung Wook

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

KOREA (SOUTH)



(See reference map VII)

G Korea Research Institute of Geoscience
and Mineral Resources (KIGAM)
219-5, Garibong-dong
Youngdeungpo-gu
Seoul 150-06
President: Byung Koo Hyun

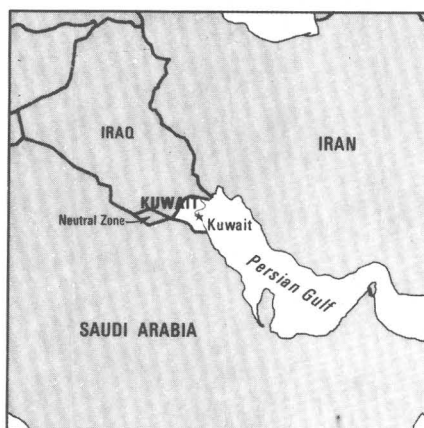
G Institute of Minerals and Mining
Engineers (KIME)
Seoul
President: Choon Ki Hong

G Office of Resources Development Planning
Ministry of Science and Technology
Central Government Office Building
Seoul
Chief: Ke Sik Chee

C National Geography Institute
Ministry of Construction
43-1 Hwikyeong-dong
Dongdaemun-ku, Seoul
Director: Lee Byong Chil

H Bureau of Water Resources
Ministry of Construction
Central Government Building
Chong Ro-Ku, Seoul
Director: Dong Yol Shin

KUWAIT



(See reference map V)

G Kuwait Institute for Scientific Research
P.O. Box 12009 Shamiah
Al Kuwait
Director-General: Adnan Shehabedin

C Director of Survey Department
Kuwait Municipality
P.O. Box 10
Al Kuwait
Director: Alrifai Bader

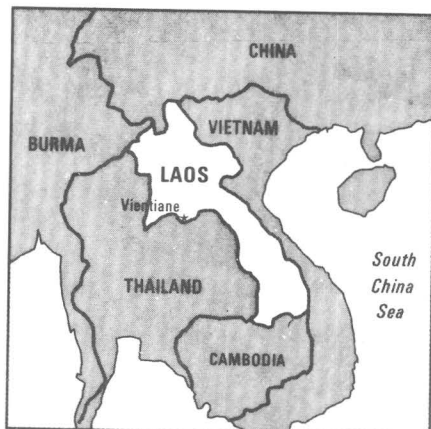
H Ministry of Electricity and Water
P.O. Box 12
Al Kuwait
Chief Engineer (Water): Abdulla al-Sharhas
Director Planning (Water and Gas):
Mustafa al-Shater

R Ministry of Oil
P.O. Box 5077
Al Kuwait

Assistant Secretary for Technical Affairs: C
Abdul Razzak M. al-Hussein

R Kuwait National Petroleum Company
(government owned)
P.O. Box 70
Al Kuwayt
Chairman and Managing Director:
Ahmad Abdulmoshin al-Mutair

LAOS

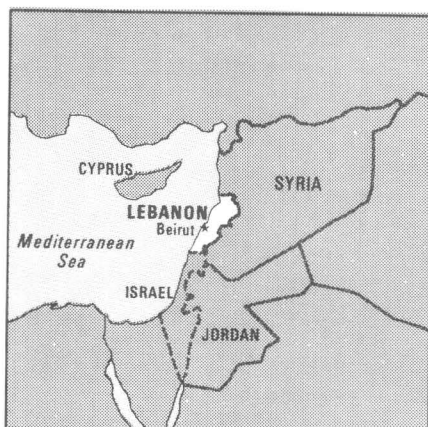


(See reference map VII)

G Service de Géologie
Comité Central du Plan
Vientiane

C Service Géographique National
Ministère des Travaux Publics et des
Transports
B.P. 167
Vientiane
Director: Saignasane Boualay

LEBANON



(See reference map V)

G Direction Générale des Travaux Publiques
Ministère des Ressources Naturelles et
Energie Hydraulique
Beirut

Service de la Topométrie
Directoire des Affaires Géographiques
Beirut
Director: Ibrahim Dhaher

C Institut de Géographie du Proche et
Moyen Orient
Avenue de Damas
B.P. 2691
Beirut
Director: M. Le Lannou

H Ministère des Ressources Hydrauliques
et Electriques
Beirut
Director General: Mohammad Fawaz

LESOTHO



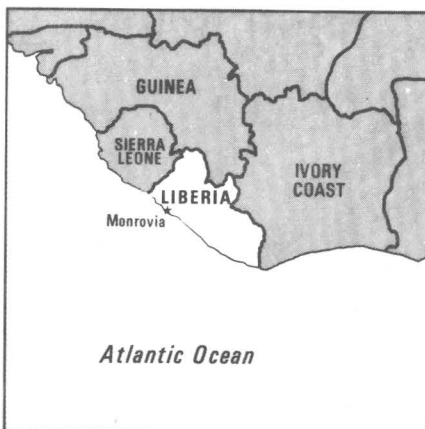
(See reference map VI)

G Department of Mines and Geology
P.O. Box 750
Maseru
Acting Commissioner: (Miss) M. Mofolo

C Department of Lands and Surveys
Ministry of Interior
P.O. Box 20
Maseru
Commissioner: Brian Twomey

H Hydrology Department
Maseru
Director: Thomas R. Hyde

LIBERIA



(See reference map VI)

G, C, H, R Ministry of Lands and Mines
P.O. Box 9024
Monrovia
Minister: Aaron J. Holmes

G, H Liberian Geological Survey
Ministry of Lands and Mines
P.O. Box 9024
Monrovia
Director: Bismarck R. Cooper

C Liberian Cartographic Service
Ministry of Lands and Mines
P.O. Box 9024
Monrovia
Director: Thomas Dunda

LIBYA



(See reference map VI)

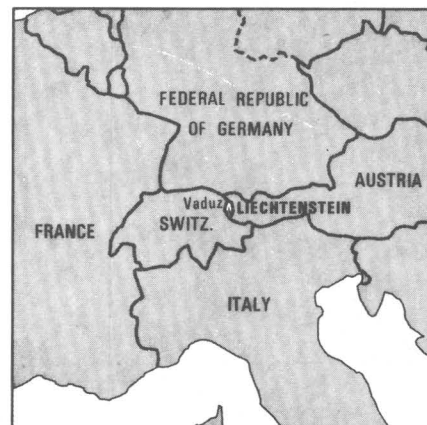
G Geological Research and Mining
Department
Industrial Research Center
P.O. Box 3633
Tripoli
Director: Faisal Zaied Ali

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

H General Water Authority
Tripoli

R Ministry of Petroleum Affairs
Tripoli
Minister: Izziddin Mabruk

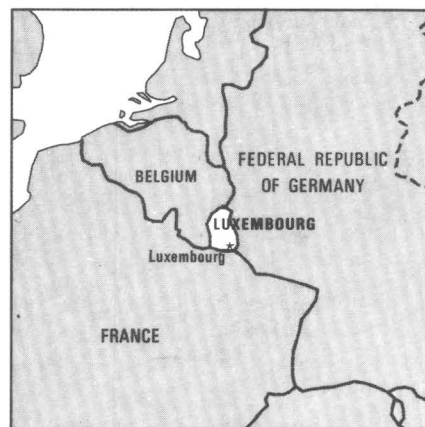
LIECHTENSTEIN



(See reference map IV)

G Geological Survey of Liechtenstein
Vaduz

LUXEMBOURG



(See reference map IV)

G Centre Séismologique
Walferdange
Administration Communale
Service Topographique
Cercle Municipal
Luxembourg
Ingénieur-Géomètre: Jean Flick

G Service Geologique
Ponts et Chaussées

4 bd Roosevelt
Luxembourg
Director: Jacques Bintz

- C Administration du Cadastre et de la
Topographie
54 Avenue Gaston Diderich
Luxembourg
Director: René Mercès

MADAGASCAR



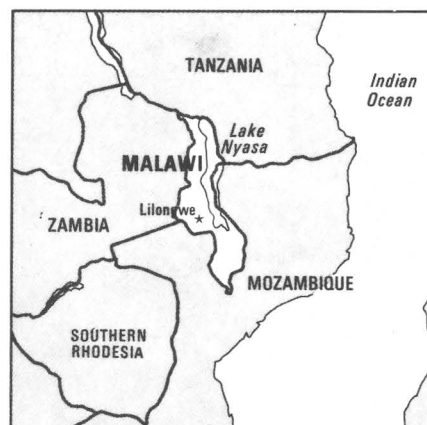
(See reference map VI)

- G Service Géologique
Ministère des Mines et de l'Energie
B.P. 280, Armandrianomby
Tananarive
- G Centre Océanographique
Office de la Recherche Scientifique et
Technique Outre-mer (ORSTOM)¹
B.P. 68
Nossi-Bé
Director: A. Crosnier
- C Institut Cartographique de Madagasikara
3 La Pana Repoblika
B.O. 456, Andohalo
Tananarive
Director: M. Solonavalona Andriamihata
- C Institut Géographique National
3 rue Jean Laborde
B.P. 456, Andohalo
Tananarive
- H Hydrological Survey
Tananarive
- R Mines and Hydrocarbons Department
Directorate of Industry and Mines
Ministry of Economy and Commerce
Tananarive
Chief of Service: G. Ramaparany

¹ Designates French research organization, without governmental affiliation.

- R Directorate of Industry and Mines
Ministry of Economy and Commerce
Tananarive
Director: G. Rajaonary

MALAWI



(See reference map VI)

- G Geological Survey Department
Ministry of Natural Resources
P.O. Box 27, Liwonde Road
Zomba
Director: J. H. Bean
- C Survey Department
Ministry of Natural Resources
Box 349
Blantyre
Acting Director: Green

MALAYSIA

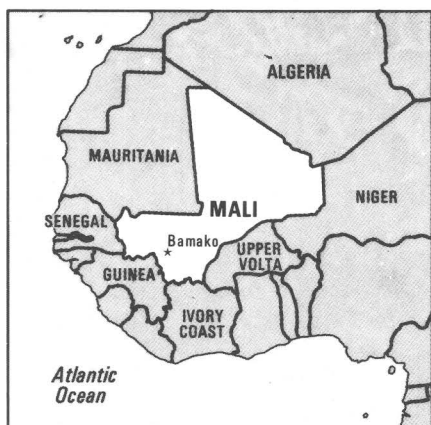


(See reference map VII)

- G Federal Geological Service
Jalan Gurney
Kuala Lumpur 15-01
Director: S. K. Chung
- C Directorate of National Mapping
Jalan Gurney
Kuala Lumpur
Director: Paul Foo

R The Ministry of Lands and Mines
Jalan Gurney
Kuala Lumpur
Minister: Datuk Asri bin Haji Muda

MALI



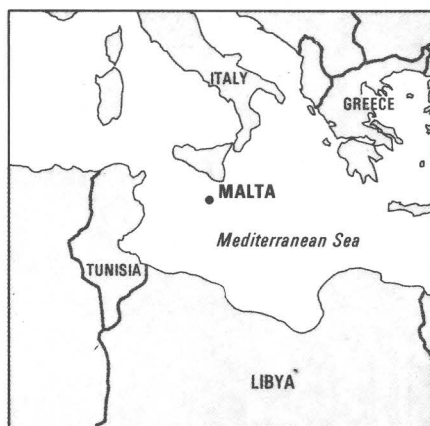
(See reference map VI)

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

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

H Service Hydrologique
B.P. 66
Bamako

MALTA



(See reference map IV)

C Department of Information
Auberge de Castille
Valletta

R Ministry of Development, Energy, Port
and Telecommunications
Auberge de Castille
Valletta

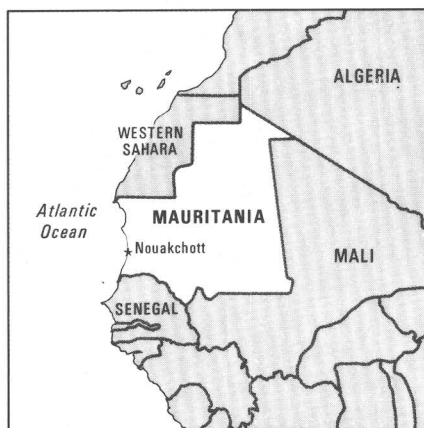
MARTINIQUE



(See reference map II)

G Arrondissement Mineralogique de la
Guyane
B.P. 458
Fort-de-France

MAURITANIA

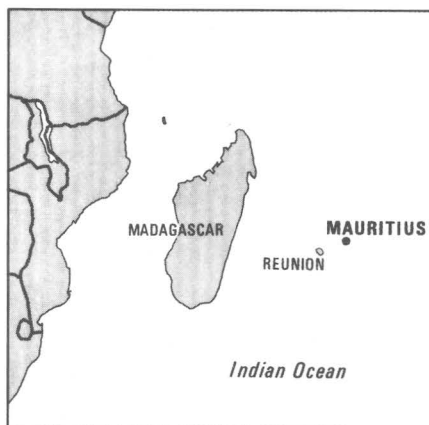


(See reference map VI)

G Direction des Mines et de la Géologie
Ministère de l'Industrialisation et des Mines
B.P. 199
Nouakchott
Director: Y. Barbier

C Service Topographique et Cartographique
B.P. 237
Nouakchott
Director: Habib Ould Ely

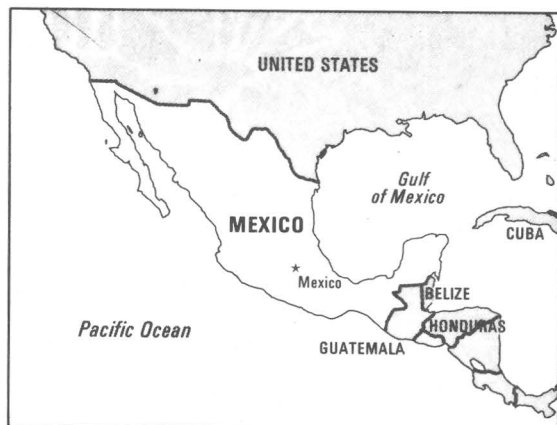
MAURITIUS



(See reference map VI)

- 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: D. Ramasawmy
- H Ministry of Works
Port Louis
Principal Hydrologist: K. Jawaheer

MEXICO

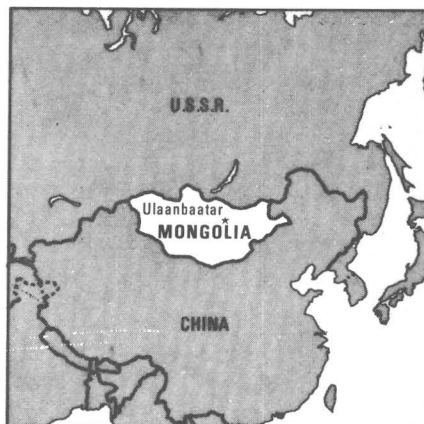


(See reference map II)

- G Instituto de Geologia
Universidad Nacional Autónoma de México (UNAM)
Ciudad Universitaria
México 20, D.F.
Director: Diego A. Córdoba M.
- G Consejo de Recursos Minerales
Niños Heroes 130
México 7, D.F.
Director General: Guillermo P. Salas

- G Instituto de Geofísica
Universidad Nacional Autónoma de México (UNAM)
Ciudad Universitaria
México 20, D.F.
Director: Julian Adem
- G Instituto de Biología
(Includes Oceanography)
Universidad Nacional Autónoma de México
Ciudad Universitaria
México 20, D.F.
Director: Agustin Ayala Castañares
[Coordinator of Sciences at UNAM]
Alfredo Laguarda [Centro de Ciencias del Mar]
- C Departamento Geográfico Militar
Secretaria de la Defensa Nacional
Lomas de Sotelo
México 10, D.F.
Director General: Joachim Orozco Camacho
- C, G Comisión de Estudios del Territorio Nacional (CETENAL)
San Antonio Abad 124, 5° Piso
México 8, D.F.
Director: Juan B. Puig de la Parra
- H Secretaria de Recursos Hidráulicos
Insurgentes Sur No. 476-13° Piso
México 7, D.F.
Secretary: Merino Rabago
- G Instituto Mexicano de la Fluorita, A.C.
Tokio No. 4, Esq. Praga,
Apartado Postal 6-783
México 6, D.F.
Director-General: Pablo Stevens Lonergan

MONGOLIA



(See reference map VII)

- G Institute of Geology
Academy of Sciences
UI, Leniadom 2
Ulaanbaatar
Director: B. Luvsandandzan
- G, C Institute of Geography and Permafrost
Studies
Academy of Sciences
Ulaanbaatar
Director: S. H. Tsegmed
- G, H Institute of Hydrology and Meteorology
Academy of Sciences
Ulaanbaatar
Director: T. Myagmarjav

MOROCCO



(See reference map VI)

- G Division de la Géologie
Ministère du Commerce, de l'Industrie,
des Mines, et de la Marine Marchande
Rabat
Chief: El Arbi Hilali
- 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
Reform Agraire
Conservation Foncière et des Travaux
Topographiques
Division de la Carte
Avenue Mohammed V, Quartier
Administratif
Rabat
Chief: Abdeloujid Hakam
- H Direction de l'Hydraulique
Division de Ressources en Eau
B.P. 525 Rabat-Chellah
Rabat
Chief: Abdellatif Kabbaj

- R Division des Mines
Ministère du Commerce, de l'Industrie,
des Mines, et de la Marine Marchande
Avenue Mohammed V
Quartier Administratif
Rabat
Chief: Mohammed Lakhssassi

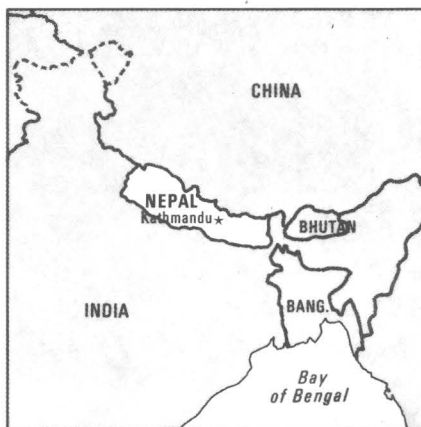
MOZAMBIQUE



(See reference map VI)

- C Direcção dos Serviços de Geologia e Minas
Caixa Postal 217
Maputo
Director: J. M. Trigo Mira
- C Secretary for Lands and Rural
Development
Serviços Geográficos e Cadastrais
Av. 5 de Outubro 87
Maputo

NEPAL

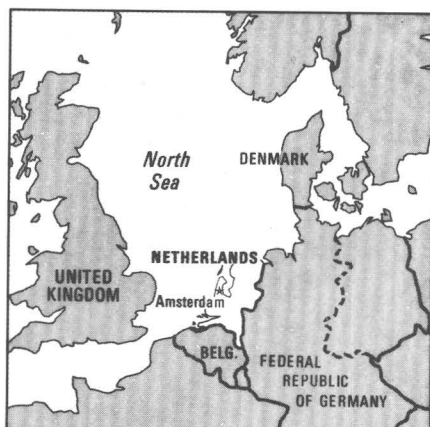


(See reference map VII)

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

- C Survey Department
Ministry of Land Reform
Dilli Bazar
Kathmandu
Director: Arjun Bahadur Basnyat
- H Department of Irrigation, Hydrology
and Meteorology
Ministry of Food, Agriculture, and
Irrigation
Panipokhari
Kathmandu
Director General: Bhubaneshwar Kumar
Pradhan

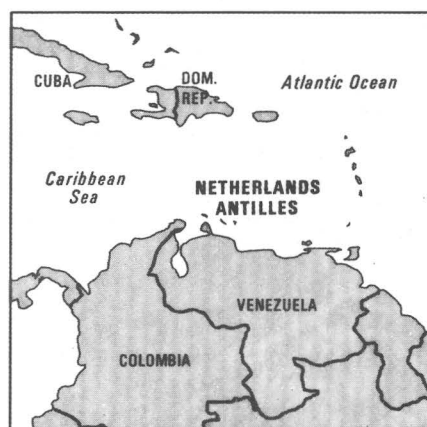
NETHERLANDS



(See reference map IV)

- G Rijks Geologische Dienst
Spaarne 17, P.O. Box 157
Haarlem
Director: A. A. Thiadens
- C Dienst van Net Kedaster
Walter Singel 1
Apeldoorn
- C Topografische Dienst
Westvest 9
Delft
- H Ministry of Transport and Waterways
Bureau of Water Control and Works
The Hague
Director: A. Volker
- R Ministry of Economic Affairs
Directorate General for Energy
Bezuidenhoutsweg 30
The Hague
Minister: L. de Block

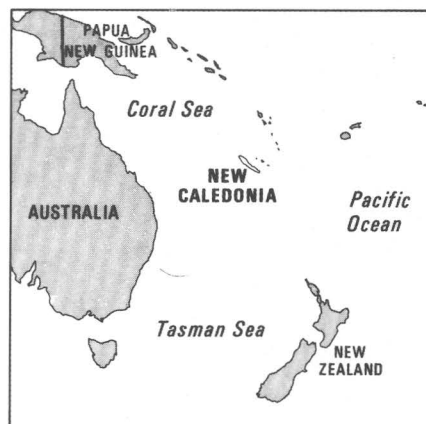
NETHERLANDS ANTILLES



(See reference map II)

- C Bureau voor Kadaster en Kaartering
Sint Anna Boulevard 4
Curacao
Director: H. B. Calvo

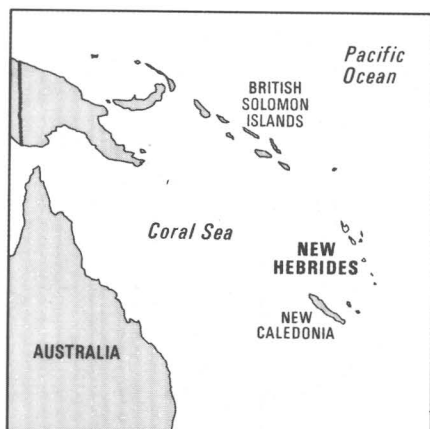
NEW CALEDONIA



(See reference map VIII)

- G Service des Mines et de la Géologie
Rte. No. 1
B.P. 465
Nouméa
- C Service Topographique
Territorial Administration Center
Avenue Paul Doumer
Nouméa Nouvelle

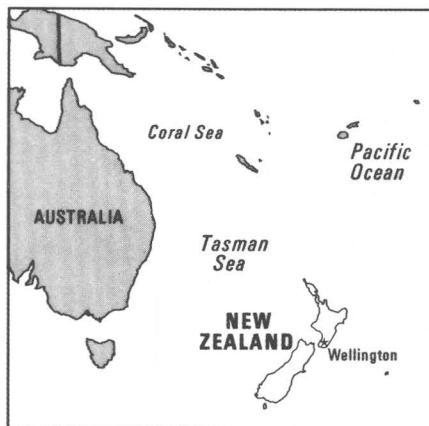
NEW HEBRIDES



(See reference map VII)

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

NEW ZEALAND



(See reference map VIII)

- G Geophysics Division
Department of Scientific and Industrial Research
P.O. Box 1320
Wellington 1
Director: T. Hatherton
- G New Zealand Geological Survey
Department of Scientific and Industrial Research
P.O. Box 30-368
Wellington
Director: R. P. Suggate
- C The Surveyor General, Head Office
Department of Lands and Survey
Private Bag, Charles Ferguson Building
Wellington
Surveyor General: I. F. Stirling

- H Ministry of Works and Development
P.O. Box 12041
Wellington
Commissioner: N. C. McLeod
- R New Zealand Mines Department
Oil and Gas Exploration
P.O. Box 6342
Te Aro, Wellington
Chief Mining Engineer (Minerals):
L. S. Jones

NICARAGUA

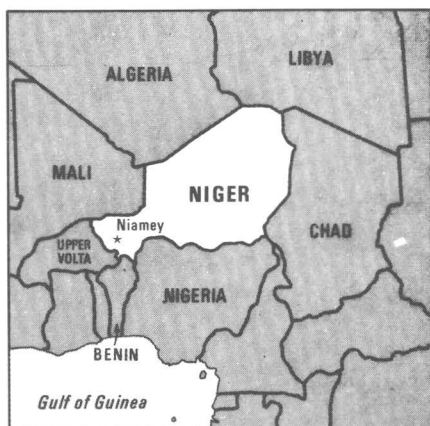


(See reference map II)

- G Proyecto Geotermico
Empresa Nacional de Luz y Fuerza
(ENILUF)
Apartado 55
Managua
Vice President: Roberto Vega P.
- G Servicio Geológico Nacional
Ministerio de Economía
Apartado Postal 1347
Managua, D.N.
Director: Orlando Rodriguez Marengo
- G Dirección de Riquezas Naturales
Ministerio de Economía
Apartado Postal 8
Managua
Director: Gilberto Bergman Padilla
- G Instituto de Investigaciones Sísmicas
Ministerio de Fomento y Obras Públicas
Apartado Postal 1761
Managua
Director: Arturo Aburto Quezada
- C Instituto Geográfico Nacional
Ministerio de Fomento y Obras Publicas
Apartado Postal 2120
Managua, D.N.
Director: Humberto Porta Caldera

H Servicio Meteorológico Nacional
Ministerio de Defensa
Apartado Postal 87
Managua
Director: Enrique Garcia

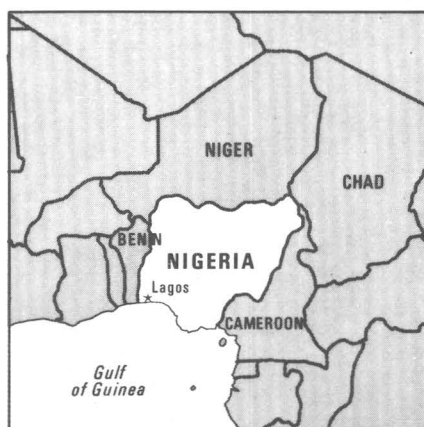
NIGER



(See reference map VI)

- G, H Ministère des Mines et de l'Hydraulique
B.P. 257
Niamey
Secrétaire Général: Diallo Oumar
- C Direction du Service Topographique et
du Cadastre
Ministère des Finances
B.P. 250
Niamey
Directeur: Jean Claude
- 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 Koutouby

NIGERIA



(See reference map VI)

- G Nigerian Geological Survey Department
Ministry of Mines and Power
P.M.B. 2007
Kaduna South, North 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, East Central State
- G Nigerian Mining Corporation
24 Naraguta Ave.
P.M.B. 2154
Jos
General Manager: Alhaji Rilwanu Lukman
- G Nigerian National Petroleum Corporation
P.M.B. 12650
Lagos
Managing Director: F. R. A. Marinko
- C Cartographic Section
Geological Survey Department
P.M.B. 2007
Kaduna South
Officer in charge: M. I. A. Ogunkaya
- C Survey Division
Federal Ministry of Works
Igboere Road at Okesuna Street
Lagos
Director of Federal Surveys:
R. Oluwole Coker
- H Federal Ministry of Water Resources
9 Kofo Abayomi Street
Victoria Island

P.M.B. 12700
Lagos
Commissioner: Alhaji Ibrahim El-Yakubu

H Ministry of Water Resources
Lagos

R Federal Ministry of Mines and Power
Broad Street Office
Lagos
Commissioner: Kachalla Barko

NORWAY



(See reference map IV)

G Den Geofysiske Kommissjon
[The Geophysical Commission]
Metereologiske Institut
Oslo 3
President: R. Fjørtoft

G Norges Geologiske Undersøkelse
[Norway's Geological Survey]
P.B. 3006 Ostmarkneset
Leiv Erikssons Vei 39
7001 Trondheim
Managing Director: Knut S. Hejer

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: Morten Kingard

C Norges Geografiske Oppmaling
St. Olavs Gt. 32
Oslo
Director: Elik Olav Dahle

H Norsk Vannforsknings Institutt
[Norwegian Institute for Water Research]
Postboks 333, Blindern
Oslo 3
Chief: Kjell Baalsrud

H Norges Vassdrags og Elektrisitetsvesen
[Norwegian Water Resources and
Electricity Board]
Water Resources Division
P.O. Box 5091, Majorstua
Oslo 3
Chief: Aa. Hjelm-Hansen

R Oljedirektoratet
[Norwegian Petroleum Directorate]
Laagaardsveien 80
4000 Stavanger
Director: Fredrik Hagemann

R Olje-og Bergverksavdelingen
[Petroleum and Mining Division]
Pilestredet 33
Oslo 1
Director-General: Knut Daehlin

OMAN



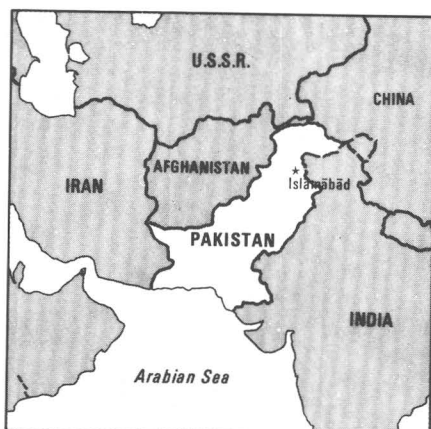
(See reference map V)

G, H, R Ministry of Agriculture, Fisheries,
Petroleum, and Natural Resources
P.O. Box 551
Muscat
Minister: Said Ahmad al Shanfari

C Ministry of Defense
P.O. Box 113
Muscat
Deputy Minister: Sayyid Fahar bin Tainur
al Busaidi

H Ministry of Communications and Transport
P.O. Box 684
Muscat
Minister: Abdul Hafidh Salim Rajab

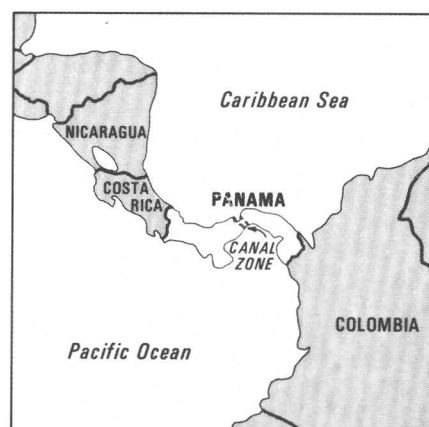
PAKISTAN



(See reference map VII)

- 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: Shehzad Sadiq
- G Geological Survey of Pakistan
P.O. Box 15
Quetta
Director General: A. Mannan Khan
- C Survey of Pakistan
Shabrah-i-Muhammad Raza Shah Pehlvi
P.B. 10
Rawalpindi
Surveyor General: M. Sharif
- H Water and Power Development Authority
WAPDA House
Lahore
Member (Water): N. C. Syed
- R Petroleum Division and Water, Power and
Natural Resources Division
Ministry of Petroleum and Natural
Resources
Secretariat Block A
Islamabad
Secretary, Petroleum Division: Shehzad
Sadiq
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

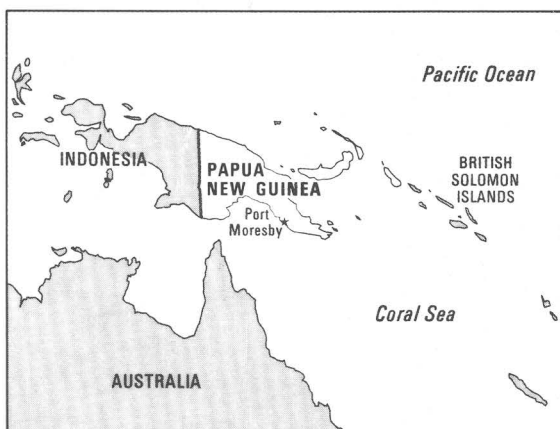
PANAMA



(See reference map II)

- G Administración de Recursos Minerales
Apartado Postal 9658, Zona 4
Panama City
Director: Jorge Quiros
- G Corporación de Desarrollo Minero-Cerro
Colorado (CODEMIN)
Apartado 008
Panama 5
Director: Ruben Dario Herrera
- C Instituto Geográfico Nacional "Tommy
Guardia"
Apartado Postal 5267, Zona 5
Panama City
Director: Julio Mock C.
- H Instituto de Acueductos y Alcantarillados
Nacionales
Panama City
Director: Federico G. Guardia
- H, G Instituto de Recursos Hidráulicos y
Electrificación (IRHE)
Apartado 5285
Panama 5
Director: Edwin Fabrega
- H, R Dirección de Recursos Naturales
Renovables (RENARE)
Ministerio de Desarrollo Agropecuario
Santiago, Veraguas
R. de Panamá
Director: Ruben D. Paredes
Head of RENARE: Irvin Diaz

PAPUA NEW GUINEA



(See reference map VIII)

G Geological Survey of Papua-New Guinea
Box 778
Port Moresby
Chief Government Geologist: H. L. Davies

C Department of Natural Resources
Papua
Surveyor General: Kisokau Pochapon

PARAGUAY



(See reference map III)

G Dirección de la Producción Mineral
Tucará 271
Asunción
Director: Ricardo Mazo

G Dirección de Recursos Minerales
Ministerio de Obras Publicas and
Comunicaciones
Calle Alberdi y Oliva
Asunción
Director: Victor Diaz de Vivar

C Instituto Geográfico Militar
Avenidas Artigas y Vía Ferrea
Asunción
Director General: Abraham Abed

R Dirección de Industria Militares
Calle Estados Unidos y San Carlos
Asuncion
Director: Roberto Knopfelmacher

H Administración Nacional de Navegacion y
Puertos
Plazoleta Isabel la Católica
Asuncion
Presidente: Contralmirante Ramon E.
Martino

PERU



(See reference map III)

G Instituto Geofísico del Peru
Casilla 3747
Lima
Director: Alberto Giesecke

G Instituto Peruano de Energia Nuclear
(IPEN)
Luis Aldana 120, Urb. Santa Catalina
Lima
Presidente: Juan Barreda Delgado

G Instituto Científico Tecnológico Minero
(INCITEMI)
Malecón Balta 758, Miraflores
Lima
Presidente: Alberto Benavides

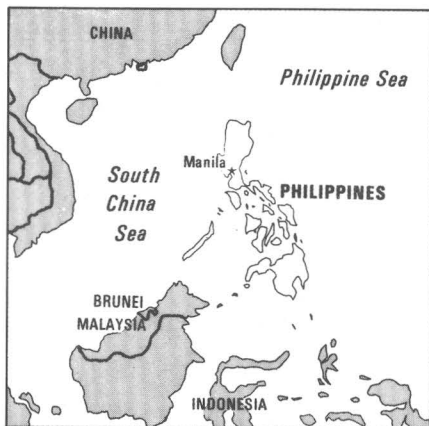
G, H Instituto del Mar del Perú (IMPARPE)
Chucuito, Callao
Presidente: Alberto Indacochea

G, C, H, R Oficina Nacional de Evaluación de Recursos
Naturales (ONERN)
Calle 17 #355, Urb. El Palomar, San
Isidro
Lima
Director-General: José Lizárraga Reyes

G, R Instituto de Geología y Minería
(INGEOMIN)
Paz Soldan 225
San Isidro, Apartado 889
Lima
Director: Benjamin Morales Arnao

- C Servicio Aerofotográfico Nacional
Base Aérea las Palmas
Barranco, Lima
Director: Francisco Hoffman
- C Instituto Geográfico Militar
Avenida Andrés Aramburu 1198
Apartado 2038
Lima
Director General: Luis Figari Ferreyra
- C, H Dirección de Hidrografía y Navegación
de la Marina (DHNM)
Calle Saenz Peña no. 590, La Punta
(Callao)
Casilla Postal no. 80 - Callao
Lima
Director: José Rojas Hernández
- R Dirección General de Hidrocarburos
Ministerio de Energía y Minas
Calle Zepita, Edificio Ferrand
Lima
Director: Julio Davila Valeriano
- R Petroleos del Perú (PETROPERU)
Paseo de la República no. 3361,
San Isidro
Lima
President: Augusto Freitas Ramos

PHILIPPINES



(See reference map VII)

- G Commission on Volcanology
National Science Development Board
Hizon Building
Quezon Boulevard Ext.
Quezon City
Commissioner: Gregorio A. Andal
- G Philippine Atmospheric, Geophysical,
and Astronomical Services
Administration
Quezon City Development Bank Building
424 Quezon Boulevard Extension
Quezon City 3008
Director: Roman L. Kintanar

- G Department of Energy
P.O. Box 1031, Makati Commercial Center,
Makati, Metro Manila
Secretary of Energy: Geronimo Z. Velasco
Director for Technical Affairs:
Arthur Salvidar Sali
- G Atomic Energy Commission
Department of Energy
Diliman, Quezon City
Commissioner: Librade Ibe
- G, R Geological Survey Division
Bureau of Mines
P.O. Box 1595
Pedro Gil Street
Manila 2801
Director: Juanito C. Fernandez
- C Bureau of Coast and Geodetic Survey
421 Barraca Street
Biondo, Manila 2807
Director: Jayme V. Presbitero
- C Board of Technical Surveys and Maps
234 Tanduay
Manila
- H National Power Corporation
161 Bonifacio Drive
Port Area, Manila 2803
General Manager: Ramon R. Ravanzo
- H Bureau of Public Works
Bonifacio Drive
Port Area, Manila 2803
Director: Desiderio Anolin
- H National Irrigation Administration
3rd Floor, APC Building
Diliman, Quezon City 3004
Administrator: Alfredo L. Juinio

POLAND



(See reference map IV)

- G Zakład Paleozoologii PAN
Al Zwirki i Wigury 93
02-089 Warszawa
Director: Zofia Kielan-Jaworowska
- G Instytut Geofizyki PAN
Pasteura 3
02-093 Warszawa
Director: Roman Tiesseyre
- G Główny Instytut Górnictwa
[Central Mining Institute]
Plac Gwarków I
40-951 Katowice
Director: Adam Szczurowski
- G Centralny Urząd Geologii
[Research Center for Geological Sciences]
Zwirki i Wigury 93
Warszawa
Director: M. Książkiewicz
- G Instytut Naftowy
[Institute of Petroleum]
ul. Lubicz 25a
31-503 Krakow
Director: Józef Gmuczynski
- G, H Instytut Geologiczny
ul. Rakowiecka 4
00-975 Warszawa
Director: Jan Malinowski
- C Centralny Urząd Geodezji i Kartografii
ul. Jasna 2/4
00950 Warszawa
- H Instytut Meteorologii i Gospodarki
Wodnej
ul. Podlesna 61
00-967 Warszawa
Director: Jan Kaczmarek

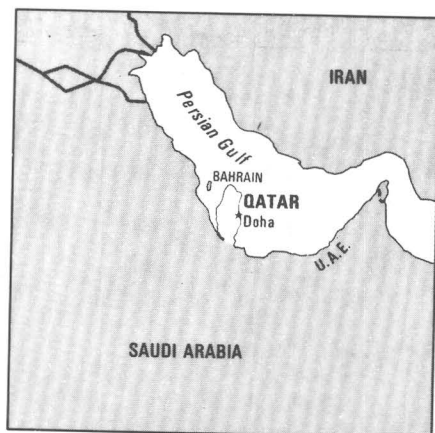
PORTUGAL



(See reference map IV)

- G Direcção Geral de Minas e Serviços
Geológicos
Ministério da Economia
Rua Antônio Enes, 5
Lisboa-2
Director: Fernando Soares Carneiro
- G Serviços Geológicos de Portugal
Rua da Academia das Ciências 19-2°
Lisboa-2
Director: Miguel Marques de Magalhães
Ramalho
- C Instituto Geográfico e Cadastral
Ministério das Finanças
Praça da Estrela
Lisboa
Director-General: Antônio Gabriel
Albuquerque Gonçalves
- H Estação Aquícola
[Water Research Station]
Villa do Conde
Lisboa
Director: Joaquim Antônio Soares Soeiro
- H Direcção-Geral dos Recursos e
Aproveitamentos Hidraulicos
Rua de S. Mamede, 23
Lisboa 2
Director-General: Joaquim Fernando
Faria Ferreira
- H Portuguese Commission on International
Hydrologic Program
Ministério das Obras Públicas
Praça do Comercio
Lisboa 2
President: Joaquim Fernando Faria
Ferreira
- H Secretariat of State for Hydro Resources
and Basic Sanitation
Praça do Comércio
Lisboa 2
Secretary of State: Baltazar Antônio
Morais Barroco
- R Secretariat of State for Industry
Avenida Miguel Bombarda, 6
Lisboa 1
Director: Francisco Goncalves Cavaleiro
de Ferreira
- R Secretariat of State for Energy and
Mines
Rua da Horta Seca, 15
Lisboa 1
Secretary of State: Ricardo Bayão Horta

QATAR



(See reference map V)

G, R Qatar Petroleum Producing Authority
(QPPA)
P.O. Box 70
Doha
General Manager: Arthur Gilatt

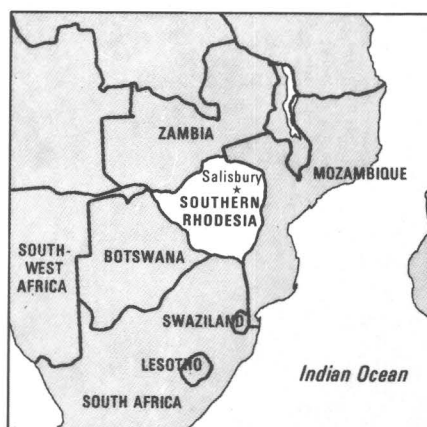
REUNION



(See reference map VI)

G Services des Travaux Publiques
St. Denis

RHODESIA



(See reference map VI)

G Geological Survey of Rhodesia
Ministry of Mines and Lands
P.O. Box 8039, Causeway
Salisbury
Director: F. L. Amn

G Department of Trigonometrical and Topo-
graphical Surveys
Salisbury

C Department of the Surveyor General
Ministry of Lands
Electra House, Jameson Avenue
Salisbury

ROMANIA



(See reference map IV)

G Institutul de Geologie și Paleontologie
Universitatea "Babes-Bolyai"
Str. M. Kogalniceanu 1
Cluj-Napoca
Director: O. Protescu

G Institutul de Fizica a Pamintului si
Seismologie
Platforma Națională Măgurele

Bucharest
Director: Ion Cornea

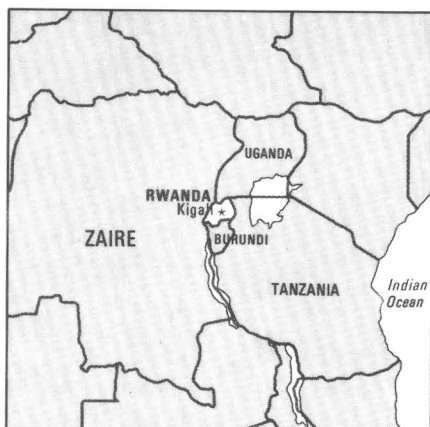
G Institutul de Cercetări Geologice și
Geofizice
Str. Caransebeș No. 1
Bucharest, Sector 8
Director: Iasif Bercea

G, C Institutul de Geologie și Geografie
Str. Dimitrie Racovită No. 9
Bucharest
Director: Petre Ghiștescu

H Institutul de Meteorologie și Hidrologie
Sos București Ploiești 97
Bucharest
Director: Nicolae Ciovică

R Ministerul Minelor, Petrolului și
Geologiei
Str. Mendeleev No. 36-38 -
Bucharest
Minister: Trandafir Ciocirlă

RWANDA



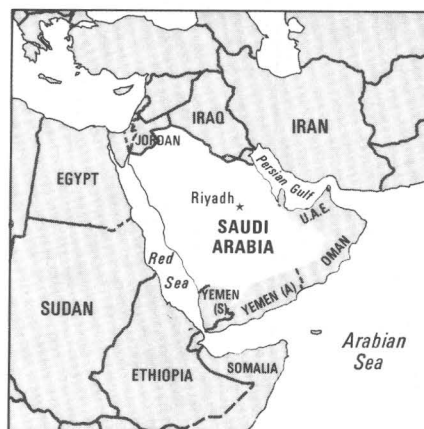
(See reference map VI)

G Ministère des Ressources Naturelles, des
Mines et des Carrières
Kigali
Minister: Cléophas Kanyarwanda
Director, Geological Research: Joseph
Zigirabahali

G Service Géologique du Rwanda
Ministère du Commerce, des Mines et de
l'Industrie
B.P. 15
Ruhengeria
Director: P. Corminboeuf

C, H Service des Terres
Ministère de l'Agriculture et de l'Elevage
B.P. 621
Kigali

SAUDI ARABIA



(See reference map V)

G, R Ministry of Petroleum and Mineral
Resources
Directorate General of Mineral Resources
P.O. Box 345
Jiddah
Deputy Minister for Mineral Resources:
Ghazi Sultan

C Centre for Applied Geology
P.O. Box 1744
Jiddah
Director: A. M. Al-Shanti

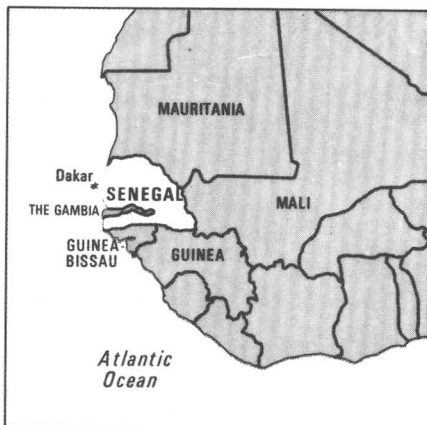
C Aerial Survey Department
Ministry of Petroleum and Mineral
Resources
P.O. Box 247
Riyadh
Director General: Soleman Saleh
Al-Robaishy

H Saline Water Conservation Corporation
Jidda Desalination Plant
Jidda
Governor: HRH Prince Mohamed Bin
Faisal

H Ministry of Agriculture and Water
Water Conservation Department
P.O. Box 478
Riyadh
Minister: Abdul Rahman Al As-Sheikh

R Ministry of Petroleum and Mineral Re-
sources
P.O. Box 247
Riyadh
Minister: Shaikh Ahmad Zaki Yamani

SENEGAL



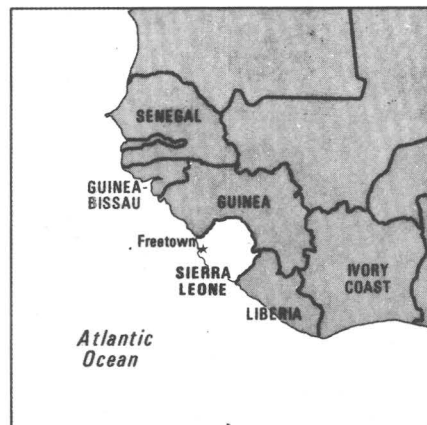
(See reference map VI)

- G Direction des Mines et de la Géologie
Ministère du Développement Industriel
Route de Ouakam
Dakar
Director: Babacar Faye
- G Office de la Recherche Scientifique et
Technique Outre-Mer (ORSTOM)¹
Route des Pères Maristes
B.P. 1386
Dakar
Director: Claude Monnet
- G Centre de Géophysique
Office de la Recherche Scientifique et
Technique Outre-mer (ORSTOM)
B.P. 50
M'Bour
Director: Claude Monnet
- G Bureau de Recherches Géologiques et
Minières (BRGM)¹
7, rue Mermoz
B.P. 268
Dakar
Director: Remy Delafosse
- C Institut Géographique National (IGN)
7, rue Mermoz
B.P. 4016
Dakar
Director: Louis Calvez
- C Service Géographique du Senegal
14, rue Victor Hugo
B.P. 740
Dakar
Director: Serigne M'Baye Thiam

¹ Designates French research organization, without governmental affiliation.

- C, G Service Géographique du Senegal
Ministère des Travaux Publics de
l'Urbanisme et des Transports
Dakar
Director: Serigne M'Baye Thiam
- H Direction de l'Hydraulique Rural
Ministère du Développement Rural et de
l'Hydraulique
Building Administratif
Dakar
Director: Moussa Dieng

SIERRA LEONE



(See reference map VI)

- G Geological Survey Division
Ministry of Lands, Mines, and Labor
New England, Freetown
Director: A. H. Gabiri
- C Surveys and Land Division
Ministry of Lands, Mines, and Labor
New England, Freetown
Director: E. A. Redwood-Sawyers

SINGAPORE



(See reference map VII)

G Public Works Department
Structural Design and Investigation Branch
Ministry of National Development
11th floor, National Development
Building
Maxwell Road
Singapore 2
Senior Executive Engineer: Tan Swan
Beng

G, H Energy Research and Development
Department
National Institute of Science and
Technology
Singapore
Director: Vesto R. Jose

C SAF Mapping Unit
Ministry of Defense
Dover Road Camp I
Singapore 5
Head: Yuen See Wah

C Survey Department
Ministry of Law
3rd Floor, National Development Building
Maxwell Road
Singapore 2
Chief Surveyor: Kwah Kheng Swee

H Public Utilities Board
Chief Engineer's Office
5th Floor, Colombo Court Building
Singapore 6
Chief Water Engineer: Chou Tai Choong

SOMALIA



(See reference map VI)

G Geological Survey Department
Ministry of Mining
P.O. Box 744
Mogadiscio
Director: V. N. Kozerenko

C Survey and Mapping Department
P.O. Box 24

Mogadiscio
Director: Musa Adan Wadadid

SOUTH AFRICA



(See reference map VI)

G Magnetic Observatory
(Geomagnetism, Seismology)
P.O. Box 32
Hermanus, Cape Town
Head: A. M. van Wijk

G, H Geological Survey of South Africa
Department of Mines
Private Bag X112
New Museum Building
233 Visagie Street
Pretoria 0001
Director: J. F. Enslin

C Director General of Surveys
Trigonometrical Survey Office
Rhodes Avenue
Mowbray 7705, Cape Town
Director General of Surveys: E. Van
der Spuy

H National Institute for Water Research
Council for Scientific and Industrial
Research
P.O. Box 395
Pretoria 0001
Director: G. G. Cillié

H The Chief Hydrologist
Hydrological Research Institute
Department of Water Affairs
Private Bag X313
Pretoria 0001

R Minerals Bureau
Department of Mines
Private Bag X4
Braamfontein 2017
Director: Dirk C. Neethling

R South African Department of Industries
Civitas Building

Private Bag X342
Struben Street
Pretoria 0001
Secretary: P. F. Theron

R Department of Mines
Private Bag X59
Oranje-Nassau Building
Schoeman Street
Pretoria 0001
Minister: S. P. Botha

SOUTH-WEST AFRICA (NAMIBIA)



(See reference map VI)

G Geological Survey
P.O. Box 2168
Windhoek

C The Surveyor General
Windhoek

SPAIN



(See reference map IV)

G Instituto Nacional de Geofísica
Serrano 123
Madrid
Director: Luis Lozano Calvo

G Servicio de Geología de Obras Públicas
81 Avenida de Portugal
Madrid
Director: Manuel Gomez de Pablos

G Empresa Nacional ADARO de
Investigaciones Mineras, S.A.
Serrano, 116
Madrid
Director: Juan Antonio Gómez-Angulo

G Instituto Geológico y Minero de España
Rios Rosas 23
Madrid

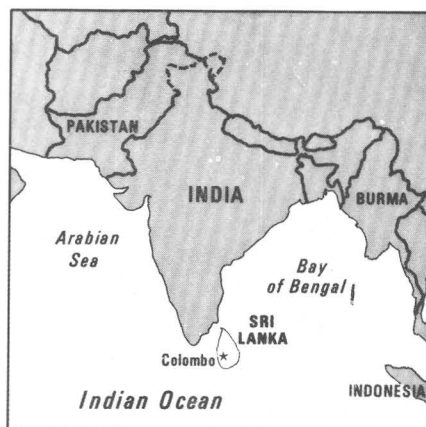
C Instituto Geográfico y Catastral
Calle del General Ibáñez de Ibero 3
Madrid
Director General: Juan García Frías y
García

C Real Sociedad Geográfica
Valverde 22
Madrid

H Instituto de Hidrología
Patronato "Alfonso el Sabio"
Paseo Bajo de la Virgen del Puerto 3
Madrid
President (of Patronato): P. Antonio
Romaná

R Ministerio de Industrias
Serrano 35
Madrid
Minister: Alfredo Santos Blanco

SRI LANKA (formerly CEYLON)



(See reference map VII)

G Geological Survey Department
48 Sri Jinaratana Road
Colombo 2
Director: J. W. Herath

C Surveyor-General's Office
Kirula Road
Colombo 5
Surveyor-General: S. J. Munasinghe

- H Irrigation Department
Buddhaloka Mawatha
Colombo 7
Director: A. Maheswaran
- H Water Resources Board
7 Sigiriya Gardens
Bagatelle Road
Colombo 3
Chairman: Hema H. Basnayake
- R Ceylon Petroleum Corporation
113 Galle Road
Colombo 3
Chairman: Daham Wimalsema

SUDAN



(See reference map VI)

- G Geological Survey Department
Ministry of Mining and Industry
P.O. Box 410
Khartoum
Director: Yousif Suliman
- C Ministry of Defense
Survey Department
P.O. Box 306
Khartoum
Director General: Mohammed Al Bagir Khalifa
- C Topographical Survey Division
Survey Department
Khartoum
Director: Abdel Wahab Ahmed Hassan
- H Rural Water and Development Corporation
Ministry of Irrigation and Hydroelectric Power
Chief Engineer's Office
Khartoum
Director-General: Mamon Mohamadi

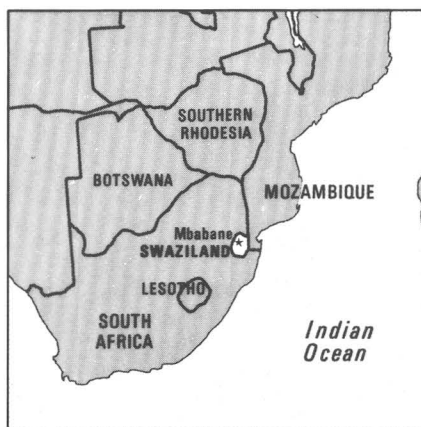
SURINAM



(See reference map III)

- G Geologisch Mijnbouwkundige Dienst
Klein Wasserstraat 1 (2-6)
Paramaribo
Director: G. Doeve
- C Centraal Bureau Luchtkartering
P.O. Box 971
Paramaribo
Head: J. B. Wekker

SWAZILAND



(See reference map VI)

- G, 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: D. Levy

SWEDEN



(See reference map IV)

- G Norrlandsfonden
[Northland Foundation]
Smedjegatan 17
S-95132 Luleo
Chairman: Ake Nystrom
- G Statens Geotekniska Institut (SGI)
Fack
S-58101 Linköping
Director: Leif Andréasson
- G, H, C, R Sveriges Geologiska Undersökning (SGU)
[The Geological Survey of Sweden]
S-10405 Stockholm 50
General-Director: Gunnar Ekevärn
- C Statens Lantmäteriverk (LMV)
[The National Landsurvey of Sweden]
S-80112 Gävle
Director: Sten Wickbom
- H Sveriges Meteorologiska och Hydrologiska
Institut
S-60101 Norrköping
Director: Lars Ag
- R Statens Industriverk (SIND), Minerabyrån
[The National Swedish Industrial Board]
Box 163 15
S-10326 Stockholm
Director: Thoresten Neyman

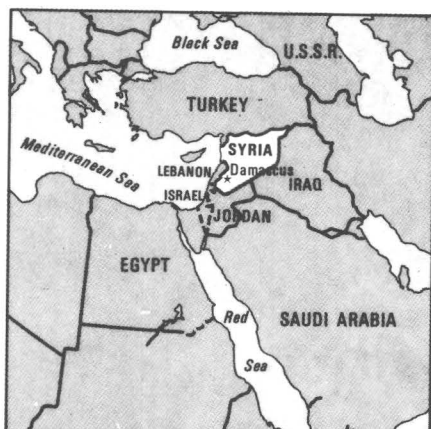
SWITZERLAND



(See reference map IV)

- G, H Schweizerische Geologische Kommission
Naturforschende Gesellschaft
Bernoultstrasse 32
4056 Basel
Director: August Spicher
- C Eidgenössische Landestopographie
[Topographical Survey of Switzerland]
Seftigenstrasse 264
CH-3084 Wabern
Director: Ernst Huber
- H Eidgenössische Gewässerschutzkommission
[Federal Commission for Water Protection]
Secretariat: Eidgenössisches Amt für
Umweltschutz
Schwartzorstrasse 53
3003 Bern
President: Paul Manz
- H Amt für Wasserwirtschaft
[Office for Water Economy]
Effingerstrasse 77
3001 Bern
Director: Rolf Loepfe
- R Eidgenössisches Amt für
Energiewirtschaft
Erdoel-und Gaswirtschaft
[Federal Energy Agency]
Kapellenstrasse 14
3011 Berne
Director: Karl Bernhard Boehler

SYRIA

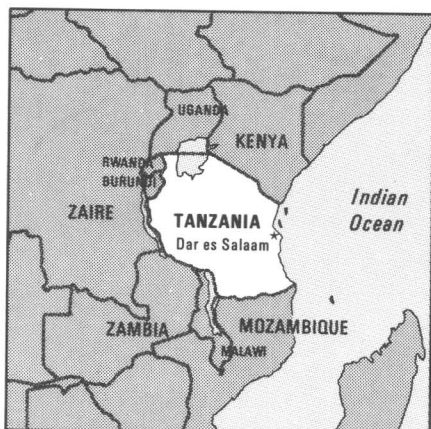


(See reference map V)

G Directorate of Geological Research and Mineral Resources
Ministry of Petroleum
Fardos Street
Damascus
Director: Seifuddin Atfeh

C Service Géographique de l'Armée
B.P. 3094
Damascus

TANZANIA



(See reference map VI)

G Geology
Ministry of Water Development, Power, Energy and Minerals
P.O. Box 412
Dodoma
Principal Geologist: D. J. Chao

R Mines
Ministry of Water Development, Energy and Minerals
P.O. Box 9153
Dar es Salaam
Director: D. S. Rwezahura

C Survey and Mapping Division
Ministry of Lands, Housing and Urban Development
P.O. Box 9201
Dar es Salaam
Senior Surveyor: O. Andrew

H Hydrogeological Section
Ministry of Water Development, Energy and Minerals
P.O. Box 35066
Dar es Salaam
Principal Hydrologist: W. Balaile

R Tanzania Petroleum Development Corporation
P.O. Box 2774
Dar es Salaam
Executive Chairman: Sylvester Barongo

THAILAND



(See reference map VII)

G, H Forestry Department
Ministry of Agriculture
Phaholyothin Road
Bangkok 9
Director-General: Pradit Vanabhituksa

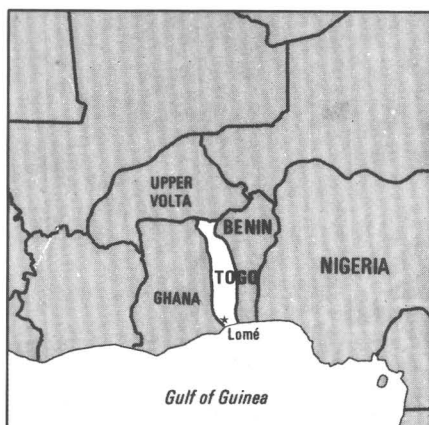
G, R Department of Mineral Resources
Ministry of Industry
Rama VI Road
Bangkok 4
Director General: Pisoot Sudasna

C Armed Forces Survey Department
Supreme Command Headquarters
Ministry of Defense
Konlaya Namaitri R.D.
Bangkok 2
Director of Survey: Chumporn Kulkasem

C National Research Council of Thailand
Office of the Prime Minister
196 Paholyothin Road
Bangkhen
Bangkok 9
Secretary-General: Sanga Sabhasri

- H Mekong Committee
c/o ESCAP
Rajdamnern Avenue
Bangkok
- H Royal Irrigation Department
Ministry of Agriculture
Bangkok
Director-General: Manas Pitivongse

TOGO

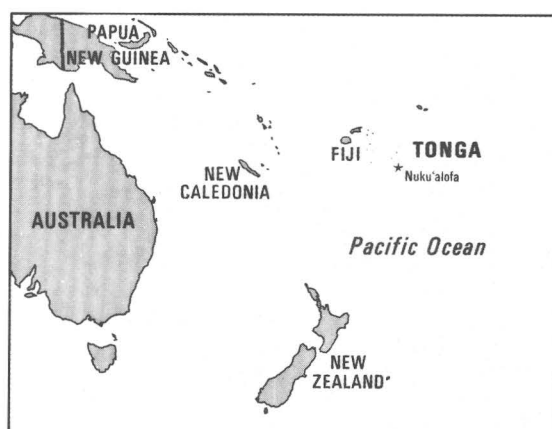


(See reference map VI)

- G Direction des Mines et de la Géologie
Ministère des Mines, Energie et Ressources
Hydrauliques
B.P. 356
Lomé
Director: Daku Tètè Lawson
- C Service Topographique
Ministère des Travaux Public, Mines,
Transports et Telecommunications
B.P. 356
Lomé
Director: Godfroy Adama
- H Office de la Recherche Scientifique et
Technique Outre-mer Centre ORSTOM
de Lomé¹
B.P. 375
Lomé Director: Jean Francois Vizier

¹ Designates French research organization, without governmental affiliation.

TONGA, KINGDOM OF



(See reference map VIII)

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

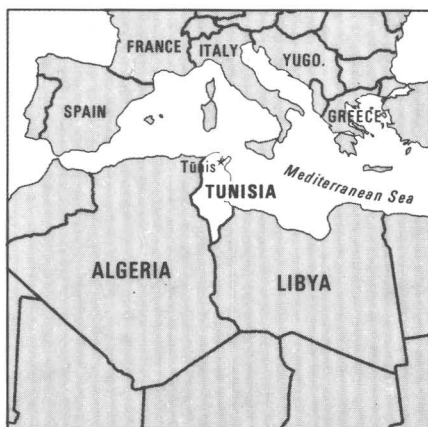
TRINIDAD AND TOBAGO



(See reference map II)

- G, R Ministry of Petroleum and Mines
P.O. Box 96
Port-of-Spain, Trinidad
Director: John P. Scott
- 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 VI)

- G Service Géologique de Tunisie
95 Avenue Mohamed V
Director: A. Azzouz
- G Direction des Mines et de la Géologie
Ministère de l'Economie Nationale
195 rue de la Kasbah, Tunis
Director: Farouk Kchouk
- C Office de la Topographie et de la
Cartographie
13 Rue de Jordanie
Tunis
President Director-General: Habib Amri
- H Service de l'Hydraulique et de l'Equipe-
ment rural
Sous-Secrétariat de l'Agriculture
Tunis
- H Division des Ressources en Eau
Ministère de l'Agriculture
41 Rue de la Manoubia
Tunis
Director: Habib Zbidi
- R Direction de l'Energie
Ministère de l'Economie Nationale
195 rue de la Kasbah, Tunis
- H Sous-Secrétariat d'Etat au Plan à
l'Industrie et au Commerce
Tunis
Chief: Abderrazak Rassa

TURKEY



(See reference map V)

- G, C, H Mineral Research and Exploration Institute
of Turkey
Eskisehir Yolu
Ankara
Director: Sadrettin Alpan
- C General Directorate of Turkish Mapping
Service
Ministry of National Defense
T.C., M.S.B. Harita Genel Mudurlugu
Cebeci, Ankara
Director General: Mahmut Ulker
- H State Hydraulic Works (DSI)
Ankara
General Director: Mufit Kulen
- R Petroleum Administration
Selanik Caddesi No. 8
Yenişehir, Ankara
President: Hayrettin Ayhan
- R Ministry of Energy and Natural Resources
Bakanliklar
Ankara
Minister: Selâhattin Kiliç

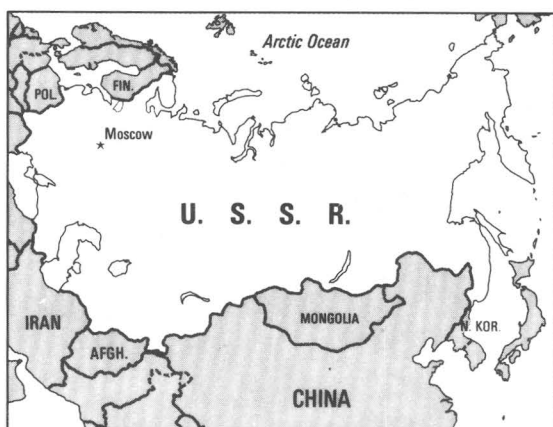
UGANDA



(See reference map VI)

- G Geological Survey and Mines Department
P.O. Box 9
Entebbe
Commissioner: J. E. N. Kagule-Magambo
- C Department of Lands and Surveys
P.O. Box 7061
Kampala
Director: G. W. Bakibinga
- H Ministry of Minerals and Water Resources
Water Development Department
P.O. Box 19
Entebbe
Commissioner: J. H. M. Katende

U.S.S.R.



(See reference map VII)

- G All-Union Geological Scientific Research
Institute (VSEGEI)
Sredny Prospekt 72B
Leningrad 199026
Director: A. Zhamoida
- G Geologic Institute
Akademiya Nauk SSSR
Pyzhevsky per. 7,
Moscow G-17
Director: A. V. Peyve
- G Vernadsky Institute of Geochemistry
Akademiya Nauk SSSR
Vorobievskoe schosse 47a
Moscow
Director: A. P. Vinogradov
- G Institute of Earth Physics
Akademiya Nauk SSSR
B Gruzinskay ul., 10
Moscow D-242
Director: M. A. Sadovsky
- G Section of Earth Sciences
Department of Geology, Geophysics, and
Geochemistry
Akademiya Nauk SSSR
- Leninsky Prospekt 14
Moscow
Academician-Secretary (of Department):
V. I. Smirnov
- G Institute of Oceanology
Department of Oceanology, Atmospheric
Physics, and Geography
Letnaya ul. 1,
Lyublino
Director: A. S. Monin
- G Institute of Volcanology
Siberian Department
Akademiya Nauk
Porgranichnaya ul. 3
Petropavlovsk, Kamchatka
Director: G. S. Gorshkov
- G Institute of Geology and Geophysics
Siberian Department
Akademiya Nauk
Akademgorodok
Novosibirsk
Director: A. A. Trofimuk
- G Institute of Frozen Soils
Siberian Department
Akademiya Nauk
Yakutsk
Director: P. I. Melnikov
- G Institute of the Earth's Crust
Siberian Department
Akademiya Nauk
ul. Lermontova 128
Irkutsk
Director: M. M. Odintsov
- G Ministry of Geology of the USSR
Bolshaya Gruzinskaya, 416
Moscow D-242
- C Main Administration for Geodesy and
Cartography
Ulitsa Krzhizhanouskogo 14, Korp 2
Moscow V.218
Deputy Director: Leonid A. Kashin
- H Hydrometeorological Service
12, Pavlik Morozov Street
Moscow D-376
- H Institute of Hydrodynamics
Siberian Department
Akademiya Nauk
Akademgorodok
Novosibirsk
Director: M. A. Lavrentiev

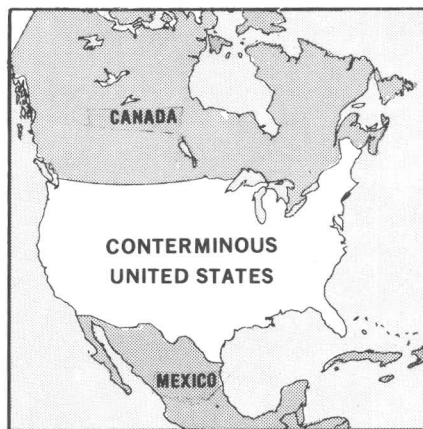
UNITED KINGDOM



(See reference map IV)

- G Institute of Oceanographic Sciences
Wormley, Godalming
Surrey BU8 5UB
Director: H. Charnock
- G Institute of Geological Sciences
Exhibition Road, South Kensington
London, SW7 2DE
Director: Austin W. Woodland
- G, C Directorate of Overseas Surveys
Foreign and Commonwealth Office
Kingston Road
Tolworth, Surbiton
Surrey KT5 9NS
Director: D. E. Warren
- C Ordnance Survey of Great Britain
Ramsey Road, Maybush
Southampton SO9 4DH
Director General: Walter P. Smith
- C Directorate of Military Survey
Ministry of Defense
Elmwood Avenue
Feltham, Middlesex TW13 7AE
Director: F. M. Sexton
- H Institute of Hydrology
Natural Environment Research Council
Crowmarsh Gifford, Wallingford
Oxfordshire OX10 8BB
Director: J. S. G. McCulloch

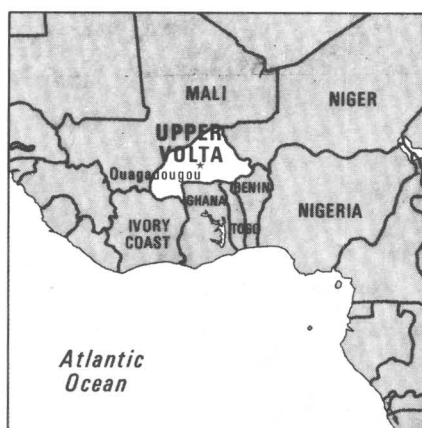
UNITED STATES



(See reference map I)

- G U.S. Bureau of Mines
Washington, D.C. 20240
Director (acting): John D. Morgan
- G, C, H, R U.S. Geological Survey
National Center
12201 Sunrise Valley Drive
Reston, Virginia 22092
Director: V. E. McKelvey
- C Defense Mapping Agency (DMA)
Building 56, Naval Observatory
Washington, D.C. 20305
Director: Abner B. Martin
- C National Ocean Survey
National Oceanic and Atmospheric
Administration
Department of Commerce
Rockville, Maryland 20852
Director: Allen L. Powell

UPPER VOLTA



(See reference map VI)

- G Direction de la Géologie et des Mines
B.P. 601
Ouagadougou
Director: Emile Gamsonre

- C Direction du Cadastre et Topographie
Service Topographique
Ministère des Finances et du Commerce
B.P. 7054
Ouagadougou
Director: Kouka Ousmane Sandwidi
- H Office de la Recherche Scientifique et
Technique Outre-Mer Centre ORSTOM a
Ouagadougou¹
B.P. 182
Ouagadougou
Director: B. Pouyau
- H Comité Inter-Africain d'Études
Hydrauliques (CIEH)
B.P. 369
Ouagadougou
Secretary-General: Mayaou Gagara

URUGUAY

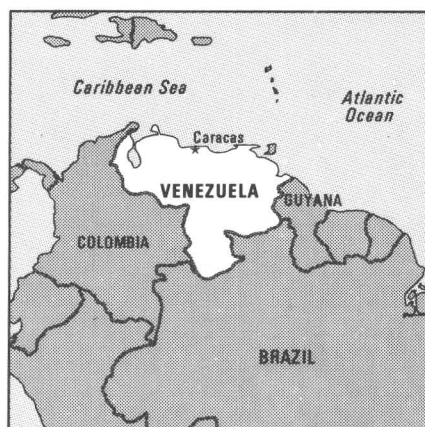


(See reference map IV)

- G Instituto Geológico del Uruguay
Calle J. Herrera y Obes 1239
Montevideo
Director: Walter Cesar Perez
- G Instituto Nacional de Pesca—INAPE
Calle Constituyente 1497
Montevideo
Director: Ulises W. Perez
- C Servicio Geográfico Militar
Avenida 8 de Octubre 3255
Montevideo
Director: Ernesto Morales
- C Ministério de Obras Públicas
Dirección de Topografía
Ituzaingo 1412/14
Montevideo
Director: Jose R. Astigarraga

- C Servicio Hidrográfico de la Armada
Capurro 980
Montevideo
Director: Hugo Lluberas

VENEZUELA



(See reference map III)

- G Dirección de Investigaciones Geoanalíticas
y Tecnológicas
Torre Norte, Piso 19
Centro Simón Bolívar
Caracas
Director: Cecilia Martín F.
- G Fundación Venezolana de Investigaciones
Seismológicas
Avenida Este 8
Cruz Verde a Zamure
Edificio Gran Via Mazzanina, Local 1
Caracas 101
Jefe del Departamento de Seismología:
Enrique Gajardo Wolff
- G, R Dirección General de Minas y Geología
Ministerio de Energía y Minas
Torre Norte, Piso 27
Centro Simón Bolívar
Caracas
Director-General: Henrique J. Lavié
- G, R Dirección de Minas
Dirección General de Minas y Geología
Ministerio de Energía y Minas
Torre Norte, Piso 19
Centro Simón Bolívar
Caracas
Director: Alirio Bellizzia
- C Dirección de Cartografía Nacional
Edificio Camejo, 2° Piso
Centro Simón Bolívar
Caracas
Director: Eduardo Gomez Fuentes

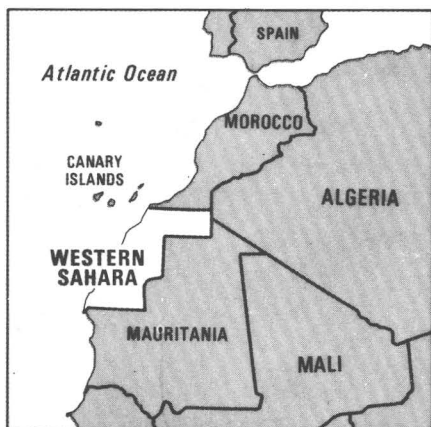
¹ Designates French research organization, without governmental affiliation.

SOCIALIST REPUBLIC OF VIET NAM



- G Geologic Section
State Committee of Sciences
Hanoi
- G State Committee of Sciences
Station of Oceanography
Hanoi
- C Service Géographique Nationale
Ministère de la Défense Nationale
Dalat
Director: Nguyen Van Khai

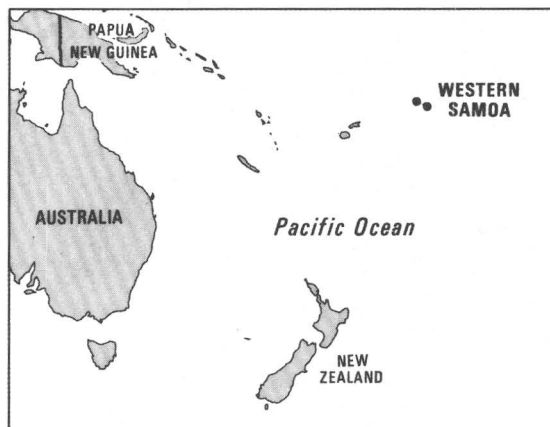
WESTERN SAHARA (formerly SPANISH SAHARA)



(See reference map VI)

- G Dirección General de Plazas y Provincias
Africanas
Servicio Minero y Geológico
Castellana No. 5
Madrid 1, Spain

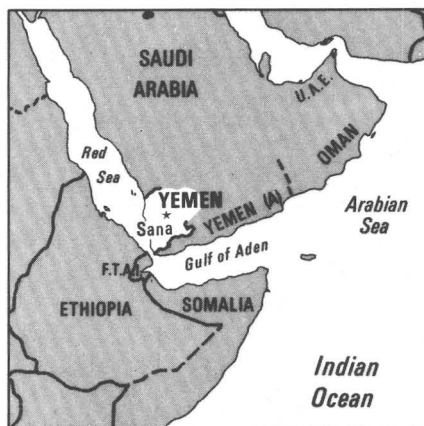
WESTERN SAMOA



(See reference map VI)

- 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
Chief Hydrologist: R. Kammer

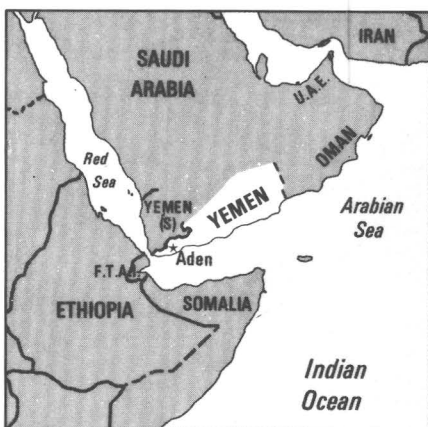
YEMEN (NORTH)



(See reference map V)

- G Central Planning Organization
P.O. Box 175
San'a'
- G, R Office of Mineral Resources
Minerals and Petroleum Authority
Ministry of Public Works
San'a'
Director-General: Ali Jaber Alawi

YEMEN (SOUTH)



(See reference map V)

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 III)

G Zavod za Geoloski i Geofizička
Istrazivanja (GEOZAVOD)
[Institute for Geological and Geophysical
Research]
Karadjordjeva 48
Belgrade
Director: Zivojin Djordjevic

G Institute for Geological and Mining
Exploration and Investigation of
Nuclear and other Mineral Raw Materials
Rovinjska 12
Belgrade
Director General: Milorad Nikolic

G Geoinzenjering Sarajevo
Institut za Geotehnikui Hidrogeologiju,

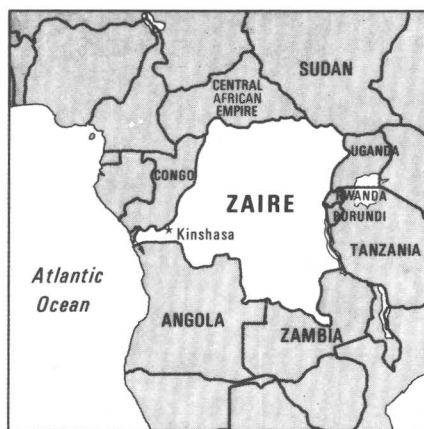
Ilizda, Bosnia
Uslanička 3
Director: Safet Cicic

C Glavna Geodetska Uprava Pri Vladi
Federativne
Narodne Republike Jugoslavije
Slobodara Penjezica 35
Belgrade

H Institute for Development of Water
Resources
Vojvo de Misica 43
Belgrade
Director: Branislav Kujundzic

H Savenzi Hidrometeorological Zarod
[Federal Hydrometeorological Institute]
Bercaninova 6/III
Belgrade
Director: Djura Radinovic

ZAIRE

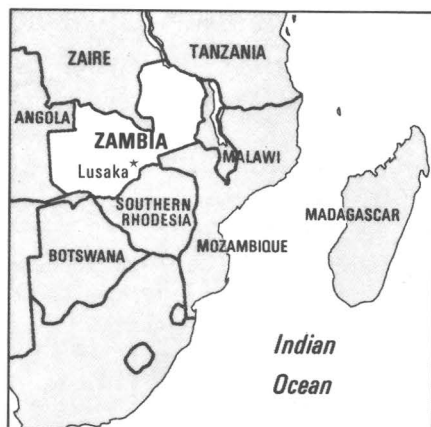


(See reference map V)

G Service Géologique du Zaire
Ministry of Mines
B.P. 898
44 Avenue des Huilleries
Kinshasa
Director: Citoyen Mbakanu

C Institut Géographique du Zaire
106 Blvd du 30 Juin
B.P. 3086
Kinshasa
Director: Punga Beya Muli

ZAMBIA



(See reference map VI)

- G Geological Survey Department
Ministry of Mines and Industry
P.O. Box RW 135
Ridgeway, Lusaka
Director: J. G. Thieme
- G Mining Development Corporation
(MINDECO)
Zimco House
P.O. Box 90
Lusaka
Managing Director: Dancewell Bowa
- G RCM and NCCM Mining Industry Research
and Development and Technical Services
Kalulushi Laboratories
P.O. Box 71
Kalulushi
Manager: J. F. C. Fisher
- C Department of Surveys
Ministry of Lands, Natural Resources and
Tourism
P.O. Box RW 397
Mulungushi House
Lusaka
Surveyor General: Andrew J. Kownacki
- H Water Affairs Department
Ministry of Rural Development
Nationalist Road
P.O. Box RW 288
Lusaka
Director: K. Sitsapesan

MAJOR INTERNATIONAL ORGANIZATIONS

- G American Association of Petroleum
Geologists (AAPG)
P.O. Box 979
Tulsa, Oklahoma 74101 USA
Executive Director: Fred Dix
- G Association of Geoscientists for
International Development (AGID)
Department of Geology
Memorial University
St. Johns
Newfoundland, Canada
Executive Secretary: A. R. Berger
- G Commission for the Geological Map of the
World
51, Boulevard de Montmorency
75026 Paris, France
Secretary General: Frances Delany
- G Committee for Co-ordination of Joint
Prospecting for Mineral Resources in
Asian Offshore Areas (CCOP)
Sala Santitham
Bangkok, Thailand
Acting Coordinator: Frank Wang
- G International Association of Engineering
Geology (IAEG)
Geologisches Landesamt N-W
De-Grief Strasse 195
Postfach 1080
D415 Krefeld I
Germany
Secretary General: R. Wolters
- G International Association of the Genesis of
Ore Deposits (IAGOD)
Institute of Geological Sciences
Charles University
Albertov 6
Prague 2, Czechoslovakia
Secretary General: M. Vanecek
- G International Association of Geochemistry
and Cosmochemistry (IAGC)
Department of Geology and Institute of
Meteoritics
University of New Mexico
Albuquerque, New Mexico USA
Secretary: K. Keil
- G International Association of Geomagnetism
and Aeronomy (IAGA)
Environmental Research Laboratories,
NOAA
Boulder, Colorado 80302 USA
Secretary: Leroy B. Alldredge
- G International Association for Mathematical
Geology (IAMG)
Geology Department
Syracuse University
Syracuse, New York 13210 USA
Secretary General: D. F. Merriam
- G International Association for the Physical
Sciences of the Ocean (IAPSO)
Naval Undersea Center
San Diego, California 92132 USA
Secretary: Eugene C. Lafond

- | | | | |
|---|--|---|---|
| G | International Association of Planetology
Geological Survey
110 15 Praha, Czechoslovakia
Executive Officer: Nadezda Stovickdva | | 7, Place de Fontenoy
75700 Paris, France
Secretary: E. von Braun |
| G | International Association of
Sedimentologists
Department of Geology
University of Oxford
Parks Road, Oxford OX1 3PR
England
Secretary General: H. G. Reading | G | 26th International Geological Congress
(1980)
Laboratoire de Géologie
61, rue de Buffon
75005 Paris, France
Chairman of Organizing Committee:
R. Lafitte |
| G | International Association of Seismology
and Physics of the Earth's Interior
(IASPEI)
Geology Department
Rice University
Houston, Texas 77001 USA
Secretary General: Jean-Claude De
Bremaecker | G | International Glaciological Society
c/o Scott Polar Research Institute
Lensfield Road
Cambridge, CB2 1ER
England
Secretary General: Hilda Richards |
| G | International Association for the Study of
Clays
Institut für Bodenkunde
Technische Universität München
8050 Freising-Weihenstephan
West Germany
Secretary General: Udo Schwertmann | G | International Mineralogical Association
(IMA)
Department of Geology
Queens University
Kingston, Ontario
Canada K7L 3N6
Acting Secretary: Leonard G. Berry |
| G | International Association of Volcanology
and Chemistry of the Earth's Interior
(IAVCEI)
Department of Earth Sciences
The University
Leeds LS29JT,
England
Secretary General: P. E. Baker | G | International Ocean Institute
Royal University of Malta
Msida, Malta
U.N. Senior Regional Scientific Adviser:
Sidney J. Holt |
| G | International Committee for Palynology
Cortezlaan 9
Utrecht, Netherlands
Secretary-Treasurer: A. A. Manten | G | International Organization of Paleobotany
(IOP)
Botany Department
Birkbeck College
London WC1E 8BT
England
Secretary General: William G. Chaloner |
| G | International Congress of Carboniferous
Stratigraphy and Geology
E-501, U.S. National Museum of Natural
History
Washington, D.C. 20242, USA
Secretary: Ellis L. Yochelson | G | International Paleontological Association
(IPA)
Department of Geology
McMaster University
Hamilton, Ontario L8S 1C0, Canada
Secretary General: G. E. G. Westermann |
| G | International Council for Exploration of
the Sea (ICES)
Charlottenlund Slot
DK-2920 Charlottenlund, Denmark
Secretary General: Hans Tambs-Lyche | G | International Paleontological Union
(IPU)
Department of Geology
McMaster University
Hamilton, Ontario L8S 1C0, Canada
Secretary General: G. E. G. Westermann |
| G | International Federation of Societies of
Economic Geologists
Comandante Forzea 7-3
Madrid 8, Spain | G | International Seismological Centre
5 rue René Descartes
67 Strasbourg, France |
| G | International Geologic Correlations
Program (IGCP) | G | International Society for Rock
Mechanics (ISRM)
c/o Laboratorio Nacional de Engenharia
Civil
Av. Do Brasil
Lisbon-5, Portugal
Secretary General: Arnaldo Silverio |

G	International Speleological Union (UIS) American University International College B.P. 236 Beirut, Lebanon Secretary: Albert R. Anavy		Observatoire Royal de Belgique Avenue Circulaire 3 1180 Brussels, Belgium Secretary General: Paul Melchior
G	International Union of Crystallography (IUCR) d13 White Friars Chester CH1 1NZ England Executive Secretary: J. N. King	G, H	Economic and Social Commission for Asia and the Pacific (ESCAP-formerly ECAFE) Sala Santitham Bangkok 2, Thailand Executive Secretary: J. B. P. Maramis
G	International Union of Geological Sciences (IUGS) Rijks Geologische Dienst P.O. Box 379 Haarlem, Netherlands Secretary General: S. van der Heide	G, H	International Association for the Physical Sciences of the Ocean Naval Undersea Center San Diego, California 92132 USA Secretary: Eugene C. LaFond
G	Seismological Society of the South-West Pacific (SSSWP) Seismological Observatory P.O. Box 8005 Wellington, New Zealand Governor: G. A. Eiby	G, H	International Decade of Oceanographic Exploration (IDOE) Intergovernmental Oceanographic Commission (IOC) 7/9 place de Fontenoy 75700 Paris, France Executive Director: Desmond Scott
G	Subcommission for Maps of Metamorphic Belts Geologisch Instituut der Rijksuniversiteit Leiden Garenmarkt 3 Leiden, Netherlands President: H. J. Zwart	G, H	International Institute for Applied Systems Analysis Schloss Laxenburg 2361 Laxenburg, Austria Director: Michel Grenon
G	Subcommission, Metallogenic Map of the World U.S. Geological Survey, MS 952 Reston, Virginia 22092 USA President: Philip W. Guild	G, H	Intergovernmental Oceanographic Commission (IOC) 7/9 place de Fontenoy 75700 Paris, France Secretary: Desmond Scott
G	Subcommission for Tectonic Map of the World Faculté de Géologie Université de Moscou Moscou B-234, USSR Secretary General: V. E. Khain	G, H	International Oceanographic Foundation (IOF) 3979 Rickenbacker Causeway Miami, Florida 33149 USA Executive Secretary: F. May Smith
G, C	Circum-Pacific Council Halbouty Center 5100 Westheimer Road Houston, Texas 77027 USA Chairman: Michel T. Halbouty	G, H	International Union for Quaternary Research (INQUA) Vrije Universiteit Te Brussel Geografisch Instituut Pleinlaan B-1050 Brussels, Belgium Secretary: R. Paepe
G, C	International Geographical Union (IGU) Department of Geography University of Chicago 5828 University Avenue Chicago, Illinois 60637 USA Secretary General-Treasurer: Chauncy D. Harris	G, H	Organization for Tropical Studies (OTS) North American Office P.O. Box 5711 Seattle, Washington 98105 USA Executive Director: Kenneth J. Turnbull
G, C	International Union of Geodesy and Geophysics (IUGG)	G, H, C	Arctic Institute of North America (AINA) University Library Tower 2920 24th Avenue, N.W. Calgary, Alberta, Canada Executive Director: John Tener

G, H, C	International Association for Advancement of Earth and Environmental Sciences Department of Earth Sciences Northeastern Illinois State University Bryn Mawr at St. Louis Avenue Chicago, Illinois 60625 USA		Place de Fontenoy 75007 Paris, France Director General: René Maheu
G, H, C	International Council of Scientific Unions (ICSU) 51 Boulevard de Montmorency 75016 Paris, France Executive Secretary: F. W. G. Baker	H	Coordinating Council of the International Hydrological Decade (IHD) UNESCO Place de Fontenoy 75007 Paris, France Secretary: José A. de Costa
G, H, C	International Institute for Aerial Survey and Earth Sciences (ITC) 144 Boulevard 1945 P.O. Box 6 Enschede, Netherlands Secretary: W. A. C. Walraven	H	International Association for Hydraulic Research (IAHR) P.O. Box 177 Delft, Netherlands Secretary: H. J. Schoemaker
G, C, H	International Society for Photogrammetry (ISP) 7 Avenue de la Grange F94100 Saint-Maur, France Secretary General: J. Cruset	H	International Association of Hydrogeological Sciences (IAHS) Research Institute of Water Resources Development Rakoczi Ut 41 Budapest 8, Hungary Secretary General: G. Koracs
G, C, H	International Union for Conservation of Nature and Natural Resources (IUCN) 1110 Morges, Morges, Switzerland Director General: Gerardo Budowski	H	International Association of Hydrogeologists BRGM6, rue Chasseloup-Laubat 75739 Paris, France Secretary General: G. Castany
G, H, C	Pacific Science Association Bernice P. Bishop Museum P.O. Box 6037 Honolulu, Hawaii Secretary: Brenda Bishop	H	International Association of Hydrological Sciences 19, rue Eugène Carrière F-75018 Paris, France Secretary General: J. A. Rodier
G, H, C	Pacific Science Association Box 17801 Honolulu, Hawaii 96817 USA Chairman, Executive Committee: Roland W. Force	H	International Council for the International Hydrological Programme UNESCO House place de Fontenoy F-75077 Paris, France Secretary: S. Dumitrescu
G, H, C	Pan American Institute of Geography and History (PAIGH) Ex-Arzobispado 29 Mexico 18, D.F., Mexico Secretary General: Carlos A. Forray Rojas	H	International Decade of Ocean Exploration Intergovernmental Oceanographic Commission UNESCO 7 place de Fontenoy 75700 Paris, France Executive Secretary: Desmond Scott
G, H, C	Smithsonian Science Information Exchange (SSIE) 1730 M Street, N.W. Washington, D.C. 20036 USA President: David F. Hersey	H	International Hydrographic Organization (IHO) Avenue President J. F. Kennedy Monte Carlo, Monaco President: G. S. Ritchie
G, H, C	United Nations Development Programme (UNDP) United Nations New York, N.Y. 10017 USA Administrator: Rudolph A. Peterson	H	International Water Resources Association Science Complex Building University of Wisconsin Milwaukee, Wisconsin 53201 USA
G, H, C	United Nations Educational, Scientific, and Cultural Organization (UNESCO)		

C

International Association of Geodesy
(IAG)
19 rue Auber
75009 Paris, France
Secretary General: J. J. Levallois

C

International Cartographic Association
(ICA)
Meyerinksweg 9
Lonneker (Enschede), Netherlands
Secretary-Treasurer: F. J. Ormeling

