



The Association of Geological Surveys of the European Union
(EuroGeoSurveys)
in their position as
custodians to their national natural resources
and
guardians of their terrestrial environment

present their list of International Cooperation Projects

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THE NETHERLANDS (TNO-NITG)**

Project Title	Main Topics	Country	Collaborating Institutions	Funding Agency
Groundwater Quality Network	Development of complete groundwater monitoring network to facilitate integrated water resources management	Poland, Poznan	Institute of Meteorology and Water Management	Ministry of Economic Affairs NL (650,000 ECU)
Water Resources Assessment Yemen	Institutional capacity building activities focused on obtaining technical and managerial self-reliance of GDH	Yemen	General Department of Hydrology in the Ministry of Oil and Mineral Resources	Ministry of Foreign Affairs NL (7,620,000 ECU)
*Water Resources Assessment	Inventory of alternative sources of water supply Sana'a and further exploration of promising alternatives	Yemen, Sana'a	National Water and Sanitation Authority (NWSA)	Ministry of Foreign Affairs NL (3,715,000 ECU)
Environmental Monitoring	Inventory study of monitoring practices laboratory facilities and information management of surface water	Danube bordering countries, Bulgaria, Croatia, Czech Rep., Hungary, Moldavia, Romania, Slovakia, Slovenia, Ukraine	Trans Monitoring Networks, Water Resources Centre *UK), Danish Hydro. Inst., Water Quality Inst. (DK)	EC PHARE (290,000 ECU)
Water Supply Planning, Human Resources Development	Strengthening the capabilities of Water Resources Department in Groundwater exploration and water resources assessment	Kenya	Ministry of Water Development	Ministry of Foreign Affairs NL (7,620,000 ECU)
*Danube Lowlands Groundwater Model	Provide technical/management tool for the Slovakian authorities. Study chemical processes quality groundwater and integrate data on agriculture, the quality of groundwater as input in GIS	Slovakia	Comenius University	EC PHARE (240,000 ECU)

Palestinian Environmental Action Plan	T.A. formulating action plan water resources and development pool of expertise (training)	West Bank, Gaza	Environmental Development Palestine	Ministry of Foreign Affairs, NL (475,000 ECU)
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**** (As at June 1996 includes RGD projects and projects of those parts of TNO now incorporated in TNO-NITG)**

THE NETHERLANDS Cont'd

Project Title	Main Topics	Country	Collaborating Institutions	Funding Agency
*Recharge conditions DTK region	Investigation of the recharge conditions in the region between the Danube and Tizra rivers (DTK region)	Hungary	National Committee for Technological Development (OMFB)	Ministry of Economic Affairs NL (120,000 ECU)
Water resources and development	Increase capabilities. Inventory of wells, extensive drilling programme collection and measurement of meteorological and hydrological network data	Sudan	National Rural Water Corporation, Water Resources Information Centre, Regional Water Authorities in Nyala and Kassala	Ministry of Foreign Affairs NL (7,150,000 ECU)
Water Resources India	Water Resources management	India	Several Institutes on Water Resources	Ministry of Foreign Affairs NL (580,000 ECU)
Exploration and Production Database	Institutional strengthening through development and operation of computerised database, interpretational support and training	Yemen	Ministry of Oil and Mineral Resources (Board)	Ministry of Foreign Affairs NL and World Bank (6,200,000 ECU)
*Oil Field Assessment	Assess (second opinion) the recommendations on rehabilitation projects for the West Siberian Samotlor oil field	Russia, Siberia, Tyumen	Nizhnevartovs kneftegas	Confido (Paris) (100,000 ECU)
E&P Management Systems	Establishing specs. for E&P management system, database system including installation, development and customising through training	Suriname	Staatsolie Maatschappij Suriname	Ministry of Economic Affairs NL (475,000 ECU)
*Increase of the recoverable oil	Introduce PETROM to new E&P management techniques and investigate	Romania	PETROM	Ministry of Foreign Affairs, NL

reserves of Romania	the potential of modern techniques to upgrade Romanian oil reserves			(440,000 ECU)
Reservoir Study of the Azal Field	Integrated reservoir engineering study of the large re-pressurised gas/condensate Azal Field	Yemen	Yemen Ministry of Oil and Mineral Resources	Ministry of Oil and Mineral Resources (460,000 ECU)

THE NETHERLANDS Cont'd

Project Title	Main Topics	Country	Collaborating Institutions	Funding Agency
Application of seismic attribute analysis for reservoir characterisation	Create a service which offers the possibility to perform a new type of attribute analysis on seismic data (pre- and post-stack) in combination with well-log data	Russia	Scientific Research Institute of Marine Geophysics Niimorgeophysica, Scientific-	European Commission, Inco-Copernicus Programme (320,000 ECU)
*Secondment of reservoir geologist to Yibal Petroleum engineering team	Integrated reservoir geological study of the aquifers in the overburden of Yibal field to identify gas migration routes and gas accumulation areas	Oman	Petroleum Development Oman LLC	Petroleum Development Oman LLC (100,000 ECU)
*Yibal Shuaiba reservoir	Modelling of relations between production performance and geology, automating production reviews using geoscientific software	Oman	Petroleum Development Oman LLC	Petroleum Development Oman LLC (100,000 ECU)
Development and implementation of a coal fire monitoring and fighting system in China	Develop a system for detection, monitoring and fighting of coal fires using satellite and airborne RS data and develop methodology to prevent development of new coal fires	China	Beijing Remote Sensing Corporation, ITC and EARS BV	Ministry of Foreign Trade and Economic Cooperation (MOFTEC), China, Ministry of Foreign Affairs, NL (2,750,000 ECU)
*Cooperation Natural Gas China and The Netherlands	Investigate the possibilities and identify a stronger cooperation between the gas related industry of China and The Netherlands in order to promote the exploration and efficient use of gas in China	China	Ministry of Geology and Mineral Resources, Gasunie, Gastec	Ministry of Public Housing, Spatial Planning and Environment NL (100,000 ECU)
Geoscience Data	T.A. to support geophysical, geochemical	Angola,	ESAMRDC, Eastern	European Commission DG VIII

Compilation Project	and mineral occurrence data collection and analysis in the Southern Development Community and Eastern African States	Botswana, Comores, Ethiopia, Lesotho, Malawi, Mozambique, Namibia, Swaziland, Tanzania, Uganda, Zambia, Zimbabwe	and Southern African Minerals Resources Development Centre, ITC	(1,706,000 ECU)
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THE NETHERLANDS Cont'd

Project Title	Main Topics	Country	Collaborating Institutions	Funding Agency
*Institutional configuration and establishment of a Geographical Information Centre (GIC)	Planning project for the institutional aspects of the implementation of the GIC of the Republic of Slovenia	Slovenia	Slovenian Geological Survey (IGGG), ITC, QC Data, Luctor Investments BV	Slovenian Ministry of Environment and Ministry of Economic Affairs NL (250,000 ECU)
COASTPLAN, Geoscience for Coastal Zone Management and Development of Southeast and East Asian Coastal Zones	TA to the CCOP Technical Secretariat, organisation of roving seminars, case studies on deltas, land reclamation/urban geology and geohazards	Cambodia, PR of China, Indonesia, Malaysia, Papua New Guinea, Philippines, R of Korea, Thailand, Vietnam, Japan	Coordinating Committee for Coastal and Offshore Geoscience Programmes in East and Southeast Asia (CCOP)	Ministry of Foreign Affairs NL, Canada, UK, Denmark, Japan (950,000 ECU)
*Geological and geochemical seabed	Development of techniques and methodologies to analyse water and sea-	Poland	Polish Geological Institute, Institute of	Ministry of Economic Affairs NL

monitoring of the Gulf of Gdansk	bed quality with the intention to identify 'hot spots' (polluted layers).		Hydro Engineering, Marine Institute Gdansk, Delft Hydraulics, Marine Information Service (MARIS)	(145,000 ECU)
*Malambaya Pipeline Survey	Sea-bed survey to investigate pipeline alignment	Philippines	Sage Surveys	Sage Surveys (340,000 ECU)

FRANCE (BRGM)

Project Title	Main Topics	Country	Collaborating Institutions	Funding Agency
*M05 - Digital Encyclopaedia of Minerals	Data and images of the principal metallic and non-metallic minerals made available to the public	Canada	University of Quebec at Montreal	Ministry of Higher Education and Research, Ministry of Industry (1.2MF)
MO1 - Metallogeny and exploration of supergene deposits	Exploration techniques for supergene gold deposits in tropical environments	Ivory Coast	Société des Mines d'Ity	French Ministry of Industry (0.75MF)
M11 - Factors of gold concentration during the geodynamic evolution of old and young mountain chains Module 4 - West Java	Study of gold mineralization associated with Miocene volcanic rocks in West Java	Indonesia	Geological Research and Development Centre (GRDC), Directorate of Sumberdaya Minerals (DSM), Aneka Tambang Company	French Ministry of Industry (1MF)
M11 - Factors of gold concentration during the geodynamic evolution of old and young mountain chains Module 3 - Romania	Study of Miocene volcanic-plutonic rocks in the Maia Mare district and associated gold mineralization	Romania	Romania Institute of Geology, University of Bucharest, CUART	French Ministry of Industry (0.95MF)

M11 -Factors of gold concentration during the geodynamic evolution of old and young mountain chains Module 2 - Brazil	Study of gold-bearing deposits in the region of Jacobina, craton de Sao Francisco	Brazil	Orstom Brazil, University of Bahia, DOCEGEO Company	French Ministry of Industry (0.4MF)
M11 - Factors of gold concentration during the geodynamic evolution of old and young mountain chains Module 1 - Africa	Geodynamics of Archean and Proterozoic chains and the genesis of gold-bearing deposits	Gabon, Guinea, Ivory Coast	National Geological and Mining Surveys	French Ministry of Industry (3MF)

FRANCE Cont'd

Project Title	Main Topics	Country	Collaborating Institutions	Funding Agency
Printing of geological maps of Djibouti	Printing of 5 maps at 1:100 000 scale	Djibouti	ISERTS, Djibouti	French Ministry of Cooperation (1.2MF)
Printing of geological maps of Niger	Printing of 16 maps at 1:100 000 and 2 maps at 1:200 000 scale	Niger	None	French Ministry of Cooperation (1.3MF)
Cartography South East Guinea	Geological mapping and mineral resources prospection - 5 maps at 1:200 000 scale	Guinea Conakry	ORSTOM, France	French Ministry of Cooperation (7MF)
Cartography North East Guinea	Geological mapping and mineral resources prospection - 8 maps at 1:200 000 scale	Guinea Conakry	ORSTOM, France	BMI (19MF)
*Conception and pre-engineering of a bioremediation unit	Conception of as installation aimed at decontaminating harbour sediments of hydrocarbons by biodegradation in bioreactors	The Netherlands		 (0.16MF)

*Onshore site investigation	Geological mapping, drillings, geotechnical tests, grounding tests, seismic hazard assessment	Sultanate of Oman	ANTEA - BRGM Group	Shell Petroleum (27.78MF)
Sedimentological analysis of the Tadla Basin	Basin analysis, water, phosphates and hydrocarbon resources	Morocco	Ministry of Energy and Mines (MA)	Ministry of Industry (France) (1MF)
Abbay river basin integrated development master plan study and preparation	BRGM: remote sensing and GIS facilities, geology, mineral resources	Ethiopia	BCEOM (France), ISL (France)	Government of Ethiopia (2MF - 23MF for whole project)
Interdisciplinary of the impact of mining activities in South Africa	Environmental assessment, remote sensing, GIS, geology, land use, airborne geophysics, quantitative morphology, run-off modelling, surface and groundwater quality	South Africa	Council for Geoscience	Ministry of Industry (0.9MF)
Alluvial gold Nilambour and related primary deposits in Kerala State. Exploration and evaluation	Geological and morphological studies reserves evaluation. Dredging pilot plant	India (Kerala State)	KEMDEL	Indian-French protocole (soft loans from French Ministry of Finances) (1.73MF)

FRANCE Cont'd

Project Title	Main Topics	Country	Collaborating Institutions	Funding Agency
Regional and detailed prospecting for gold in Tasiat area and southern Mauritanides	Documentary assessment, geological mapping, remote-sensing, geochemistry, geophysics, ore deposit geology, trenching, drilling, recommendations	Mauritania	OMRG - Office Mauritanian de Recherches Géologiques	F.E.D. (European Development Fund) (11.5MF)
Strengthening of the diamond artisanal sector to promote production standards and private and public revenues	Geological and technical studies in two productive areas. Training. Information. Promotion. Social Aspects. Supply of equipment	Central Africa Republic RCA	Ministry of Mines (RCA) ORSTOM (Logistic support)	C.F.D. French Company for Development (10.0MF)

Regional exploration of the Karnataka shield. Detailed study of gold and base metals prospects	Transfer of technology in regional prospecting, geochemistry and analytical capabilities. Training, organizational aspects	India (Karnataka State)	Geological Survey of India	India-French Protocole (soft loans from France) (11.0MF)
*European Mineral Yearbook 1996	Mining statistics. Summary for the world, details in EU countries. Production, consumption, imports, exports, companies prices	16 Countries of European Community	European Geological Survey	European Union (DG III) (260MF)
*Geological assessment of the Baydan gold prospect in the SAMRAN belt	Geological mapping, stream sediment geochemistry, multi-method ground geophysics, core drilling. New discovery of ore deposit	Saudi Arabia	DGMR	Deputy Ministry for Mineral Resources (DMMR) of the Kingdom (7.8MF)
*Exploration and evaluation of the uranium prospect of WADI ASHWAG (Dhofar)	Geological mapping and sampling of prospects, trenching, assays, evaluation of potential	Sultanate of Oman	Dhofar Department of the Directorate General for Mineral Resources (DGMR)	Ministry of Petroleum and Mineral Resources (Muscat and Oman) (2.5MF)
Center for studies of ore deposits and metallogeny (part of the Geodata Centre project)	Implementation and organization of the Center at Jaipur (Rajasthan), training, pilot projects. Supply of specialized equipment	India	Geological Survey of India (GSI)	Indian-French protocole (soft loans from French cooperation) (6.2MF - 40.8MF for the whole project)

DENMARK (GEUS)

Project Title	Main Topics	Country	Collaborating Institutions	Funding Agency
The Polish Middle to Late Jurassic epicratonic basin, stratigraphy, facies and basin history	Claystone, Oxfordian, carbonates, Jurassic source rock, reservoirs, salt structures	Poland	Institute of Geology, Warsaw University	Environment Related Energy programme Denmark (0.58m ECU)
Hydrocarbon sector support	Hydrocarbon exploration, seismic data processing, petrophysical logs	Latvia	Latvian Energy Agency State	Environment Related Energy programme

project/Latvia Phase 11.B			Geological Survey of Latvia	(0.38m ECU)
The transportation of chlorinated hydrocarbons in tills	Chlorinated hydrocarbons tills, fractures in tills	Canada	University of Waterloo	Danish research funding for environment (0.37m ECU)
Petroleum geology collaboration with Vietnam: Dynamic basin analysis and description of the Song Hong Basin using high-resolution sequence stratigraphy and basin modelling	Petroleum geology, basin analysis, high resolution sequence stratigraphy	Vietnam	CCOP, PetroVietnam, Vietnam Petroleum Institute	Danish Energy Agency (1.05m ECU)
Riga Groundwater Monitoring	Groundwater monitoring	Latvia	Latvian Geological Survey	Ministry of energy and environment, Denmark (0.33m ECU)

NORWAY (NGU)

Project Title	Main Topics	Country	Collaborating Institutions	Funding Agency
Mineral Resources of Kola Region	Inventory of mineral deposits, database, of quality controlled information	Russia	Murmansk Geological Expedition, Central Kola Geological Expedition	Norwegian Ministry of Foreign Affairs (NOK 4.2m over 3 years)
Ethionor	Assistance to EIGS by NGU for institutional strengthening particularly in the field of Mineral Resources	Ethiopia	Ethiopian Institute of Geological Surveys (EIGS) Geological Survey of Norway (NGU)	NORAD (NOK 25m over 5 years)
ERINOR	Institutional strengthening of the Eritrean Geological Survey by NGU	Eritrea	Geological Survey of Eritrea	NORAD (NOK 16.4m over 4 years)
Ecogeochemistry of	Environmental Geochemistry, multimedia	Russia/Finland	Central Kola	Norwegian Ministry of

Kola Region	sampling, database	/ Norway	Expedition (Monchegorsk), Geological Survey of Finland, NGU	Environment (for NGU participation) (NOK 8m over 4 years)
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GERMANY (BGR)

Project Title	Main Topics	Country	Collaborating Institutions	Funding Agency
Advising the national mining authority 1988-1997	Planning mining work and ore processing; modernizing chrome ore mining in Bulquiza	Albania	Albchrome	Ministry for Economic Cooperation and Development (BMZ)
Prefeasibility study on copper pyrite deposit Munella 1993-1997	Planning minerals resources, mining, processing	Albania	Albbaker	Ministry for Economic Cooperation and Development (BMZ)
Capacity building of counterpart personnel 1994-1997	Economic evaluation of mining operations	Usbekistan	State Committee on Precious Metals; Navoi Mining and Metallurgical Industries	Ministry for Economic Cooperation and Development (BMZ)
Capacity building of counterpart personnel 1994-1996	Economic evaluation of mining operations	Kyrgyzstan	National Mining Corp. (KYRGHYZALTYN)	Ministry for Economic Cooperation and Development (BMZ)
Study of the potential of non-metal resources in the Entre Rios Province 1993-1997	Evaluation of the potential of non-metal resources	Argentina	Direccion de Ciencia y Tecnologia	Ministry for Economic Cooperation and Development (BMZ)
Strengthening of the efficiency of the hydrogeological department of the "Servicio Nacional de Geologia y Minería"	Advisory services in the field of hydrogeology	Bolivia	SERGEOMIN	Ministry for Economic Cooperation and Development (BMZ)

(SERGEOMIN) 1991-1997				
Prospecting and exploration of non-ferrous and precious metals in the Department of Potosi 1996-1997	Geological mapping, geochemical and geophysical exploration, organisation consultancy	Bolivia	SERGEOMIN	Ministry for Economic Cooperation and Development (BMZ)

GERMANY (Cont'd)

Project Title	Main Topics	Country	Collaborating Institutions	Funding Agency
Study "Coal exploration in the NE" 1990-1997	Transfer of technology in the field of computer-based interpretation of coal reserves to define exploration targets.	Brazil	Companhia de Desenvolvimento do Piau	Ministry for Economic Cooperation and Development (BMZ)
Setup of an environmental department at the "Servicio Nacional de Geologia y Minería" (SERNAGEOMIN) 1994-2000	Advisory services to establish an environmental department; assessment of environmental risks caused by mining activities	Chile	SERNAGEOMIN	Ministry for Economic Cooperation and Development (BMZ)
Setup of a National Geological Survey 1990-1998	Advisory services in geological mapping and the investigation on non-metal resources; setup of chemical and ceramic laboratories	Paraguay	Dirección de Recursos Minerales	Ministry for Economic Cooperation and Development (BMZ)
Inventory, evaluation and protection of the potential of the national resources in the western region 1991-1997	Strengthening of the capacity to establish a natural resources inventory of western Paraguay; monitoring of the eco-system and the natural resources	Paraguay	Subsecretaría de Recursos Naturales Medio Ambiente	Ministry for Economic Cooperation and Development (BMZ)
Exploration and development of the groundwater resources in the	Advisory services and institutional strengthening in groundwater resources assessment	Paraguay	Dirección de Recursos Hídricos	Ministry for Economic Cooperation and Development (BMZ)

western region 1991-1997				
Setup of a geophysical department on the "Direccion Nacional de Minería y Geología" (DINAMIGE) 1994-1997	Advisory services and technical support to the geophysical department; short term assignments in various fields of the geosciences	Uruguay	DINAMIGE	Ministry for Economic Cooperation and Development (BMZ)

GERMANY (Cont'd)

Project Title	Main Topics	Country	Collaborating Institutions	Funding Agency
Advisory services to the Water Authority of Jordan (WAJ) 1991-1999	Qualification of the Water Resources Division, assessment of groundwater resources	Jordan	Water Resources Authority of Jordan (WAJ)	Ministry for Economic Cooperation and Development (BMZ)
Advisory services to the Hydrocarbon Development Institute of Pakistan (HDIP) 1984-1997	Advisory services in the field of petroleum exploration; institutional strengthening; capacity building	Pakistan	Hydrocarbon Institute of Pakistan (HDIP)	Ministry for Economic Cooperation and Development (BMZ)
Reworking of chromite tailings 1994-1998	Advisory services to the Karagedik Chromite Mine in reworking of chromite tailings and on environmental protection	Turkey	Technical University Istanbul and ETI Bank	Ministry for Economic Cooperation and Development (BMZ)
Training of hydrogeologists 1993-1996	Capacity building in the field of hydrogeology	Countries of the Arab League Office: Damascus/ Syria	Arab Centre for the study of Arid Zones and Dry Lands (ASCAD)	Ministry for Economic Cooperation and Development (BMZ)
Hydrogeological adviser 1993-1997	Advisory services to the Arab Countries in the field of hydrogeology	Countries of the ESCWA Region Office:Amman/	United National Economic and Social Commission for Western Asia	Ministry for Economic Cooperation and Development (BMZ)

		Jordan	(ESCWA)	
Geological mapping 1988-1997	Training in geological mapping, production of geological maps, 1:250 000	Yemen	Ministry of Oil and Mineral Resources (MOMR), Yemen Mineral Resources and Geological Survey Corporation (YMRGSC)	Ministry for Economic Cooperation and Development (BMZ)

GERMANY (Cont'd)

Project Title	Main Topics	Country	Collaborating Institutions	Funding Agency
Advising the Geological Survey, phase 2 1994-1997	Geological mapping and regional mineral potential assessment	Cote de'Ivoire	Direction de Geologie Abidjan	Ministry for Economic Cooperation and Development (BMZ)
Advising ONED in groundwater management 1995-1997	Planning of water supply projects for the capital Djibouti	Djibouti	Office National des Eaux de Djibouti, ONED Djibouti	Ministry for Economic Cooperation and Development (BMZ)
Advising the Geological Survey, follow-up 1996-1998	Short-term advisory services for mapping the geological field sheet Tarkwa	Ghana	Geological Survey Accra	Ministry for Economic Cooperation and Development (BMZ)
Promotion of small- scale mining, phase 2 1996-1998	Technical support to improve small-scale mining on gold	Ghana	Minerals Commission Accra	Ministry for Economic Cooperation and Development (BMZ)
Regional mineral inventory of East Guinea, phase 2 1995-1997	Mineral potential assessment of the eastern half and northwestern Guinea	Guinea	Direction Nationale de la Recherche Geologique et Mineres, DNRGM, Conakry	Ministry for Economic Cooperation and Development (BMZ)
Advisory services to the Geological Survey, phase 2	Technical advisory in prospecting fertilizer raw materials, engineering geology and regional mineral potential assessment	Malawi	Geological Survey Department Zomba	Ministry for Economic Cooperation and Development (BMZ)

1996-1997				
Assisting the Department of Water Affairs, follow-up 1997	Groundwater exploration and management, hydrogeological investigations, groundwater modelling	Namibia	Department of Water Affairs, DWA Windhoek	Ministry for Economic Cooperation and Development (BMZ)
Assisting the Geological Survey, phase 3 1995-1997	Mineral prospecting promotion, regional assessment of selected geophysical anomalies	Namibia	Geological Survey Windhoek	Ministry for Economic Cooperation and Development (BMZ)

GERMANY (Cont'd)

Project Title	Main Topics	Country	Collaborating Institutions	Funding Agency
OSS-Programme "Aquifers of the Great Sahara Basins" 1994-1997	Hydrogeological investigations of the Great Basins of the Sahara	North Africa region	Secretariat des Observatoire du Sahara et du Sahel (OSS), Paris	Ministry for Economic Cooperation and Development (BMZ)
Support of the Geological Survey of Malaysia, Sarawak 1992-1997	Coal, reserves/resources evaluation and calculation, industrial use training	Malaysia	Geological Survey of Malaysia, Sarawak	Ministry for Economic Cooperation and Development (BMZ)
Assistance to the Geological Survey 1993-1997	Hydrogeological Map, Industrial Minerals, Mineral Inventory, Training	Mongolia	Institute for Geology and Mineral Resources (Geological Survey)	Ministry for Economic Cooperation and Development (BMZ)
Support to the Department of Mines and Geology (DMG) 1992-1998	Industrial Minerals, Landslides GeoInformationSystem (GIS), Remote Sensing Maps (Environmental, Engineering Geological, Geological Training	Nepal	Department of Mines and Geology (DMG)	Ministry for Economic Cooperation and Development (BMZ)
Coal Exploration 1981-1998	Substitution of fire wood, lique, degasification training	Philippines	Department of Energy	Ministry for Economic Cooperation and Development (BMZ)
Advising the Ministry	Hydrocarbons, Geophysics, Ore deposits,	Papua New	Department of	Ministry for Economic

of Mines and Energy 1989-1996	Industrial Minerals, Institution building, training	Guinea	Mining and Petroleum (DMP)	Cooperation and Development (BMZ)
Environmental Geology for Regional Planning 1994-1998	Landuse Planning, Thematic Maps, Hydrogeology, Industrial Minerals, Waste Disposal, Remote Sensing, GeoInformationSystem training	Thailand	Department of Mineral Resources (DMR)	Ministry for Economic Cooperation and Development (BMZ)
Evaluation of the Tack Khe Iron Ore Deposit 1995-1999	Feasibility Study, Training	Vietnam	Ministry of Industry Vietnam Steel Corp.	Ministry for Economic Cooperation and Development (BMZ)
Training of CP- Personnel 1995- 1998	Environmental Management, Reclamation, CP-Training, Radioactive Survey, Groundwater and Air Contamination, Decontamination Measures, Tin Mining	Malaysia	Department of Mines	Ministry for Economic Cooperation and Development (BMZ)

GERMANY (Cont'd)

Project Title	Main Topics	Country	Collaborating Institutions	Funding Agency
Subsidence and Strata Control 1994- 1997	Prediction Methods, CP-Training, Methodological Development, Coal Mines, Coal Seams	India	Central Mine Planning and Design Institute (CMPDI)	Ministry for Economic Cooperation and Development (BMZ)
Environment Geology for Landuse and Regional Planning 1994-1996	Groundwater, Industrial Minerals, Waste Disposal, Landslide, Mudflows, GeoInformationSystems (GIS), Environmental Maps, CP-Training	Indonesia	Directorate of Environmental Geology (DEG)	Ministry for Economic Cooperation and Development (BMZ)
Stock on technical equipment to support institutions on ad-hoc demand basis 1998-1997				Ministry for Economic Cooperation and Development (BMZ)
Systematical reduction of know- how deficits in the geology sector of	a) Support to Observatoire du Sahara et du Sahel (OSS) in the compilation of the groundwater resources of the Great Basin (Sahara); hydrogeological investigations		a) OSS	Ministry for Economic Cooperation and Development (BMZ)

UNITED KINGDOM (BGS)

Project Title	Main Topics	Country	Collaborating Institutions	Funding Agency
Western Cordillera Ecuador Geological Information Mapping of the Mining Development and Environmental Control Project	Geological mapping and geochemical sampling, mineralisation and environmental studies, and training	Ecuador	Corporacion de Desarrollo e Investigacion Geologico- Minero Metalurgica	World Bank jointly with ODA (3430,000 ECU)
Overseas Service Aid Scheme Assistance to Geological Survey Department	Assistance in regional and environmental geological mapping, digital cartography and minerals databasing	Botswana	Geological Survey Department	ODA (300,000 ECU)
TC with Ministry of Petroleum and Mineral Resources	Training in environmental geology, GIS, maps, databases and reports for land use planning	Syria	General Establishment of Geological and Mineral Resources	ODA (22,000 ECU)
NRA/BGS cooperation Environmental Thematic Map Training	Land use planning, mineral resource inventory, water resources and constraints in development, training, databasing, EIA	Jordan	Natural Resources Authority	ODA (330,000 ECU)
Assessment of Natural Radionuclides in Groundwater	Integrated pollution control and vulnerability mapping	Jordan	Water Authority of Jordan	Avicenne/ODA (700,000 ECU)
Groundwater Studies in the Mezquital Valley, Mexico	Study of the impact of using wastewater for irrigation	Mexico	Comision Nacional del Agua	ODA (440,000 ECU)
Falkland Islands Geological Mapping Project*	Remapping of the Falkland Islands	Falkland Islands	Falkland Islands Government	Falkland Islands Government (240,000 ECU)
Minerals Resources	Establishment of a computerised	Vanuatu	Department of	ODA/SOPAC

Database, Vanuatu	database for minerals information		Geology, Mines and Water Resources	(70,000 ECU)
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UNITED KINGDOM (Cont'd)

Project Title	Main Topics	Country	Collaborating Institutions	Funding Agency
Montserrat Volcano: Scientific Monitoring Project	Soufriere Hills exhibiting threatening activity Monitoring activity	Montserrat	Montserrat Volcano Observatory	ODA (170,000 ECU pa)
TA to Guyana Geology and Mines Commission	Institutional strengthening through introduction of GIS technology and IT	Guyana	Guyana Geology and Mines Commission	Commonwealth Fund for Technical Cooperation (CFTC) (140,000 ECU)
BGS/EGSMA Project	Institutional strengthening by a maintained professional association	Egypt	Egyptian Geological Survey and Mining Authority	ODA (20,000 ECU)
Petroleum Exploration and Development Technical Assistance Project	Institutional strengthening, training, staff development, multidisciplinary technology transfer for maximum resource benefit to country	Papua New Guinea	Department of Mining and Petroleum	World Bank (5.4m ECU)
Industrial Minerals Technical Assistance	Industrial mineral evaluation counterpart instruction and training, creation of minerals database and a sustainable industrial mineral unit	Namibia	Geological Survey of Namibia	YSMIN (600,000 ECU)
Editing and Printing of Geological Maps and Reports	As title	Zambia	Zambia Geological Survey Department	EU (650,600 ECU)
Economic Management and Capacity Building Project	Upgrade technical capacity by training and technology transfer establishing databases, advise on legal framework, registry and functions	Angola	Ministry of Geology and Mines	World Bank (200,000 ECU)
Groundwater Development in Alluvial Aquifers	Evaluation and development of groundwater resources in unconsolidated sedimentary aquifers	Pakistan, China, Vietnam	Geological Survey of Vietnam Comprehensive	ODA

			Institute of Geotechnical Investigation and Survey, Beijing Ocean University of Qingdao	(895,942 ECU)
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UNITED KINGDOM (Cont'd)

Project Title	Main Topics	Country	Collaborating Institutions	Funding Agency
WHO: Groundwater Quality Assessment and Production	Collection, collation and dissemination of information relating to prevention of groundwater pollution, risk assessment and quality monitoring	Worldwide	Worldwide distribution of senior international development agencies and country and regional health and environmental water agencies	WHO, ODA,.UNEP (67,600 ECU)
Volcanic Hazard Mapping for Development Planning	Assessment and comparison of risks and geothematic hazard maps for planning	Chile, Argentina, Costa Rica	Servicio Nacional de Geologica y Minería Servicio Geologico de Argentina	ODA (465,750 ECU)
Data Management Systems for Groundwater in Developing Countries	Investigate hydrogeological management practice and prepare a manual on groundwater data management	Malawi, Ghana	Geological Survey/ Department of Water, Malawi	ODA (77.992 ECU)
Study of Pollution Risk to Deep Groundwaters from Urban Wastewater	Evaluation of contamination and dilution processes. Develop methodology of contamination assessment. Assess health and economic consequences and options	Thailand, Bolivia	Thailand Department of Mineral Resources Prince of Songla University Bolivia Water Cooperative	ODA (300,011 ECU)
Land Ocean Contaminant Fluxes - Toxic Trace Metals	Understanding of hazards and formulation of monitoring and controlling strategies for coastal zone pollution adjacent to	East Africa, Indonesia, Brazil	Kenya Marine and Fisheries Institute Research and	ODA

and Organic Pollutants	urbanised coastal margins		Development Centre for Oceanology (Jakarta)	(587,130 ECU)
Procedures for the Rapid Assessment of Limestone Resources	Development and application of appropriate field and laboratory procedures for limestone resource assessment in developing countries	Egypt, Thailand	Egyptian Geological Survey and Mining Authority Department of Mineral Resources, Thailand	ODA (208,950 ECU)
Minerals for Development Workshop	Integrated industrial mineral resource development in developing countries	Africa, SE Asia, Middle East, Latin America, Pacific	Assoc. of Geoscientists for International Development (AGID)	ODA (107,376 ECU)

UNITED KINGDOM (Cont'd)

Project Title	Main Topics	Country	Collaborating Institutions	Funding Agency
Cerium and Endomyocardial Fibrosis in Tropical Terrains	Endomyocardial fibrosis incidence is linked to cerium and other elements and is possibly related to tropical soil minerals. This project investigates the multidisciplinary links	Uganda	Department of Medicine Mulago Hospital, Kampala Centre for International Child Health Department of Geology, Makerere University	ODA (318,553 ECU)
Mitigation of Mining Related Mercury Pollution Hazards	Mercury pollution, especially from gold mining requires study, and amelioration measures which the project addresses	Ecuador, Philippines	Department of Environment and Natural Resources Corporacion de Desarrollo Investigacion Geologico Minero y Metallurgica, Quito Institute of Terrestrial Ecology,	ODA (294, 993 ECU)

			UK	
Prediction and Remediation of Human Selenium Imbalances	Health problems associated with human selenium deficiencies or excesses occur in certain rock type areas. "Risk" areas are being delineated	Sri Lanka, China	Chinese Academy of Geological Sciences, Beijing University of Peredeniya, Kandy	ODA and IRMA (378,289 ECU)
Geological Surveys in Developing Countries: Strategies for Assistance	Ascertain developing country geosurvey activities by questionnaire and based on response and other data develop sustainable core programme proposals	All respondents from global trawl	EuroGeoSurveys Responding Agencies Worldwide	ODA (72,749 ECU)
Development of New Well Siting Techniques	Development of the electrokinetic (EK) Rock-fluid interface geophysical well siting method to increase accuracy in borehole siting	Zimbabwe, Egypt	Department of Water Development, Zimbabwe Water Research Centre, Cairo	ODA (284,382 ECU)
Protecting Groundwater Beneath Wastewater Recharge Sites	To determine circumstances in which pollution from wastewater may lead to degradation of underlying groundwater quality	Mexico, Thailand, Jordan	Relevant water authorities	ODA (259,816 ECU)

UNITED KINGDOM (Cont'd)

Project Title	Main Topics	Country	Collaborating Institutions	Funding Agency
Potential for Aquaculture using Saline Groundwater	The project will investigate the circumstances in which saline groundwater chemistries can sustain aquaculture	Being negotiated		ODA (124,656 ECU)
Groundwater Management in Drought-Prone Areas in Africa	Long term pre-drought mitigation measures in groundwater conservation for community benefits	Malawi, Ghana, South Africa	Malawi Ministry of Irrigation and Water Development Ghana Water and Sewerage Corporation S. Africa Department of Water Affairs and	ODA (192,411 ECU)

			Forestry	
World Bank Paper on Urban Groundwater Management Strategies	Fact finding and development and drafting of a World Bank management policy paper on urban groundwater	Indonesia, Philippines, Pakistan, Brazil	Various	World Bank, ODA-AESED (71,757 ECU)
Local Development of Affordable Lime in Southern Africa	Manuals for small scale lime evaluation and lime production and practical demonstrations to encourage production for agriculture and water treatment	Zambia, Zimbabwe	Intermediate Technology Development Group Geological Survey Department, Zambia	ODA (146,455 ECU)
Environmental Arsenic Exposure: Health Risks and Geochemical Solutions	Geochemical and hydrogeological study of arsenic in natural and contaminated areas. Development of remedial strategies for improved water quality	Thailand, Argentina, Bangladesh	Department of Mineral Resources, Thailand Instituto de Geoquimica, Buenos Aires	ODA (425,691 ECU)
Gypsum Geohazards and their Impact on Development	To improve and widen awareness of gypsum geohazards as constraints on development and for practical planning	Lithuania, China	Ministry of Geology and Mineral Resources, China Geological Survey of Lithuania	ODA (89,788 ECU)
Diagnostic Method to Determine Aquifer Susceptibility Parameters	Defined methodology to determine aquifer susceptibility to over-exploitation	International	Worldwide circulation to hydrogeological organisations	ODA (23,586 ECU)

UNITED KINGDOM (Cont'd)

Project Title	Main Topics	Country	Collaborating Institutions	Funding Agency
Human Risk in Relation to Landfill Leachate Quality	Data collection, human risk assessment, seminars, workshops and development of landfill management practice	Jordan, Mexico, Thailand	Water Authority of Jordan University of Yucatan Prince Songkla University	ODA (322,345 ECU)
Geoscience	Development of an adequate PC based	Malaysia,	Geological Surveys	ODA

Information System for Mineral Development	mineral exploration and mining licence management system	Botswana, Ecuador, Guyana		(151,534 ECU)
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PORTUGAL (IGM)

Project Title	Main Topics	Country	Funding Agency
Cooperation with the National Direction of Geology	<ul style="list-style-type: none"> - Map of non-metallic occurrences of Mozambique - Tectonic map of Mazambique - Geological map of the Continental Margin, Mozambique - Training 	Mozambique	Instituto Geológico e Minerio, Instituto da Cooperação Portuguesa 400,000 ECU

SPAIN (ITGE)

Project Title	Main Topics	Country	Collaborating Institutions	Funding Agency
Geothematic Cartography Information Centre		Argentina		World Bank 1.120.000\$
Geothematic Cartography		Dominican Republic		SYSMIN 275.000.000 PTS
Catastro Minero		Dominican Republic		Spanish International Cooperation 12.000.000 PTS
Jujuy Project		Argentina		Spanish International Cooperation ~60.000.000 PTS

FINLAND (GSF)

Project Title	Main Topics	Country	Collaborating Institutions	Funding Agency
Subcontract in the project Institutional Strengthening of the Mineral Resources Department, Tanzania	Upgrading of a mineral laboratory; overseas training of the Tanzanian staff, procurements, on-the-job training, review	Tanzania	Ministry of Water, Energy and Minerals, Tanzania	IDA/World Bank 107,000 ECU
Geological Mapping and Maps	Improve the GSN's capacity to produce geological information; mapping, map production, GIS, on-the-job training, scholarship students	Namibia	Geological Survey of Namibia (Ministry of Mines and Energy)	FINNIDA 3,000,000 ECU