

**Ir. Sinoh Mohamad**

*M Sc Eng. (Env), B Sc Eng (Civil) (First Class Hons), Dip Civil, Cert OSH  
P Eng., MIEM, MEPRM, MENSEARCH, MAPCA, MISEE, AMIQ, AMINCE*

Ir. Hj. Sinoh Hj. Mohamad has more than 20 years working experience in the field of environmental management and pollution control. He is currently the Managing Director and principal of Sinoh Environmental Sdn Bhd, an environmental consultancy firm based at Kota Kinabalu, Sabah, Malaysia. The firm provides specialist environmental consultancy and services in the field of Environmental Impact Assessment (EIA), Environmental Management System (EMS), environmental auditing, environmental monitoring, environmental training, waste management and pollution control. He previously worked as Senior Environmental Scientist / Environmental Officer with Shell Group of Companies in United Kingdom, Malaysia and Brunei; as Head of Environment, Safety & Security for Sabah Gas Industries Sdn Bhd in Labuan, Malaysia; and as Civil/Environmental Engineer for Sabah Energy Corporation in Kota Kinabalu, Malaysia.

He is a qualified environmental professional with a Masters of Science degree in Environmental Engineering from University of Pennsylvania, U.S.A (1983) and a First Class Honours Bachelor of Science degree in Civil Engineering from University of Glasgow, U.K. (1982). He is also holders of Diploma in Civil Engineering from University Technology of Malaysia, K.L (1979) and Certificate in Occupational Safety and Health from Royal Society of Prevention of Accident, U.K. (1987). He has attended many training, short courses, seminars, workshops, and conferences in U.K., U.S.A., Holland, Singapore, Brunei and Malaysia including the prestigious Management Development Programme for Managers at the Cranfield School of Management, England (1985); Oil Spill Clearance Course at OSSC, England (1993); Offshore Safety Training at RGIT, Scotland (1993); and Shot-Firers Training by the Institute of Quarrying U.K. (1996).

He is a Registered Professional Engineer of Malaysia, a Registered Environmental Professional of Malaysia, a Registered EIA Consultant with Department of Environment Malaysia, and a Registered EIA Consultant with Sabah Environment Protection Department. He is also a Corporate Member of the Institution of Engineers Malaysia (MIEM), a Member of Environmental Professional Register of Malaysia (MEPRM); a Member of Environmental Management and Research Association of Malaysia (MENSEARCH), a Member of Air Pollution Control Association U.S.A. (MAPCA), a Member of the International Society of Explosives Engineers U.S.A. (MISEE), an Associate Member of the Institute of Noise Control Engineering U.S.A (AMINCE), and an Affiliate of the Institute of Quarrying U.K. (AMIQ).

In addition, he is also Managing Directors/Directors/share holders of several companies in Malaysia including *Unimekar Konsult Sdn Bhd*, a civil, structural, mechanical and electrical engineering consultancy firm; *Sinoh Environmental Management Sdn Bhd*, a professional company specialising in environmental monitoring and training; *Sinoh Environmental Waste Sdn Bhd*, a professional company specialising in waste management; *Insan Cergas Sdn Bhd*, a PKK Class "B" contractor specialising in civil and structural construction.

He was also ex-Vice President of Dewan Perniagaan Melayu Malaysia Sabah and ex-Executive Committee of the Institution of Engineers Malaysia Sabah.

**Name:** **Ir. SINOH MOHAMAD**

**Post:** **Managing Director**

**Date of Birth:** 16.03.1960

**Place of Birth:** Sandakan. Sabah

**Nationality:** Malaysian

**I/C No:** 600316-12-5643

**Academic Qualifications:** **Master of Science in Civil & Environmental Engineering**  
University of Pennsylvania, U.S.A., 1983

**Bachelor of Science in Civil Engineering (First Class Hons)**  
University of Glasgow, U.K., 1982

**Diploma in Civil Engineering**  
University Teknologi Malaysia, Kuala Lumpur, 1979

**Certificate in Occupational Safety and Health**  
Institute of Occupational Safety and Health (IOSH), U.K., 1987

**Professional Consultancy:** **Registered Professional Engineer - Malaysia (BEM), 1998**  
Member 9457

**Registered EIA Consultant - Malaysia (DOE), 1995**  
Member I 00144

**Environmental Professional - Malaysia (EPRM), 1996**  
Member 013

**Membership of Professional Institutions/Societies:** **The Institution of Engineers Malaysia (IEM), 1996**  
Member 7280

**Environmental Management and Research Association of Malaysia (ENSEARCH), 1986**  
Member 129

**Air Pollution Control Association, U.S.A , 1985**  
Member

**International Society of Explosives Engineers, U.S.A, 1996**  
Member 9701013

**The Institute of Quarrying, U.K , 1997**  
Affiliate Member 970357

**Institute of Noise Control Engineering, U.S.A , 1997**  
Associate Member

*Specialist Training:*

**Management Development Programme**

Cranfield School of Management, U.K., 1985

**Safety Management Course**

Royal Society for Protection of Accident (ROSPA), U.K., 1987

**Shot-Firers Training**

The Institute of Quarrying U.K. (Malaysian Branch), 1996

**Oil Spill Clearance Course**

Oil Spill Service Centre (OSSC), England, 1993

International Oil Tanker Pollution Fed. (ITOPF), S'pore, 1989

**Offshore Safety Training**

Robert Gordon Institute of Technology (RGIT), Scotland, 1993

Brunei Shell Petroleum Limited, Brunei, 1988

**Hazardous Waste Management Course**

PETRONAS Research Institute (PRI), Kuala Lumpur, 1991

**Environmental Audit Course**

PETRONAS Research Institute (PRI), Kuala Lumpur, 1992

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***Professional Experience (20 years)*****October 1983 to December 1985**

*Civil / Environmental Engineer* with Sabah Energy Corporation / Sabah Gas Industries Sdn Bhd. Responsible for the supervision of civil and structural works related to offshore structures, offshore/onshore pipelines, and onshore gas receiving facilities. His major experiences include review of design of offshore structures; supervision of installation of offshore structures; supervision of pipeline coating operation; supervision of pipe-laying operations using barge offshore; supervision of pipe-trenching onshore; and monitoring of hyperbaric operations (underwater cutting and welding) on one of the offshore pipelines.

**January 1986 to June 1988**

*Head of Safety, Security and Environment* with Sabah Gas Industries Sdn Bhd based in Labuan responsible for the company safety, security and environmental operations. Instrumental in the set-up of the environmental department and implemented environmental monitoring scheme and dust minimisation project. He initiated and implemented extensive environmental monitoring programme to monitor dust emissions, process water and cooling water discharges, and noise.

**July 1988 to June 1989**

*Safety Officer (Environment)* with Brunei Shell Petroleum Company based in Seria in July 1988. Responsibility includes the implementation of structured environmental inspection and provision of specialist environmental advisory on waste disposal and chemicals' usage. He was involved in the handling of onshore oil and gas well Rasau blow-out with respect to pollution and oil spill control.

**July 1989 to December 1992**

Joined Sarawak Shell Bhd in Miri as an *Environmental Officer*. His major experiences include review of company oil spill capability, and subsequently he developed a new oil spill response procedure manual. In addition, he also responsible in coordinating the Environmental Impact Assessment for Baram Delta Gas Gathering Scheme (BARDEGG). He was the focal point and environmental advisor for the Baram Delta, Lutong Refinery and Miri/Lutong operations. He participated in the Environmental Management Audit for the whole company operations and conducted periodic environmental inspections. He also conducted various environmental training for the middle management and staff.

**January 1993 to August 1994**

Attached to the Safety and Environmental Department of Shell Exploration and Production U.K., Aberdeen as a *Senior Environmental Scientist*. His major experiences include review of the computer-based oil spill prediction modelling, and the set-up of company-wide computerised atmospheric emission data-base. In addition, he coordinated several Environmental Impact Assessment of new offshore structures, petro-chemical plants, and abandonment of structures. He was the focal point and environmental advisor for abandonment of two large floating offshore structures in North Sea, focal point for atmospheric emissions, and focal point for environmental legislation. He conducted various environmental audit/review of oil and gas operations.

**September 1994 to December 1995**

Joined Jurutera Perunding Wahba Sdn Bhd (Sabah Branch) as an *Associate Director*. Responsible for the operation and management of Sabah office. Involved in the design of industrial buildings at Labuan and renovation of SEC head-office at Kota Kinabalu.

**January 1995 to-date**

Set-up Sinoh Environmental Sdn Bhd in January 1995 and assumed the position of *Managing Director*. The company is a specialist environmental firm providing consultancy and services to the industry in the field of Environmental Impact Assessment (EIA), environmental management, pollution control, environmental audits, environmental training, environmental legislative reviews, and waste management. The company employs 24 personnel, including 13 professional staff.

*Training / Courses Attended:*

<u>Dates</u>	<u>Training / Courses / Conferences</u>
Nov. 10-11, 1983	Risk Management Seminar, Singapore
Jan. 23-24, 1984	Quality Assurance Seminar, Miri
May 10-15, 1984	Offshore Technology Conference, Houston. U.S.A
Feb. 25 - Apr. 26, 1985	Management Development Programme, Cranfield Institute Technology, England
Mar. 13-14, 1986	Risk Analysis Seminar, Singapore
Feb. 2 - Mar. 6, 1987	Safety Management Course, Royal Society of Prevention of Accident (ROSPA), England
Mar. 11, 1988	Domestic Inquiry Training, Labuan
Jul. 26-27, 1988	Offshore Safety Training, Brunei Shell Petroleum Limited, Brunei
Jan. 22-26, 1989	Oil Spill Clearance Course, International Oil Tanker Pollution Federation (ITOPF), Singapore
Jan. 22-26, 1990	Environmental Management Conference, Shell International Petroleum Mv (SIPM), The Hague
Aug. 13-17, 1991	Hazardous Waste Management Course, PETRONAS Research Institute (PRI), Kuala Lumpur
May 25-29, 1992	Environmental Audit Course, PETRONAS Research Institute (PRI), Kuala Lumpur
Mar. 1-5, 1993	Offshore Survival Safety Training, Robert Gordon Institute of Technology (RGIT), Scotland
Apr. 26-30, 1993	Oil Spill Clearance Course, Oil Spill Service Centre (OSSC), England
May 18-19, 1994	Abandonment of Offshore Structures Conference, Shell U.K. Exploration and Production, Scotland
Oct 7-12, 1996	Training Course for Shot Firers The Institute of Quarrying (Malaysian Branch), Kuala Lumpur

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### ***Environmental Experiences and Projects Handled by Sinoh Mohamad***

The holder has extensive experiences in environmental management and pollution control. These include Environmental Impact Assessment (EIA), legislation, training, audit, oil spill, contingency planning, monitoring, waste management, abandonment, data management, and special studies. He was personally involved in the preparation and reviewing of several Environmental Impact Assessment both in Malaysia and United Kingdom; has extensive knowledge in environmental-related legislation of Malaysia, United Kingdom and European Union; participated in several environmental audits/reviews; and involved in the abandonment projects of two major offshore structures for Shell U.K.

#### **Environmental Impact Assessment**

Experiences in a number of EIA carried-out both in Malaysia and United Kingdom. EIA prepared / co-ordinated include:

##### ***Preliminary EIA***

1. Baram Delta offshore natural gas gathering project at Miri, Sarawak for Petronas Carigali/Sarawak Shell, 1992
2. Additional 4th compression module & 3rd loading jetty at Mossmorran petro-chemical complex, Scotland for Shell UK, 1993
3. Gas desulphurisation project at *St Fergus* Gas Terminal, Scotland for Shell UK, 1993
4. Abandonment of Brent Spar offshore oil floating storage structure for Shell UK, 1993
5. Abandonment of Fulmar FSU/SALM offshore oil floating storage for Shell UK, 1994
6. Modification to Bacton Gas Terminal, England to handle additional natural gas throughput for Shell UK, 1994
7. Oil evacuation scheme for Central North Sea oil fields for Shell UK, 1994
8. Sand Dredging/Reclamation for Tourism Development at Kota Kinabalu, Sabah, 1994
9. Aggregate Quarries (Lahad Datu, Papar, Telipok, Silam, Inanam, Penampang, Tamparuli, Kimanis, Sipitang, Tawau, Sandakan, Semporna, Kudat, Kota Marudu, Keningau, Beluran, Pitas, Sapulut), 1995 - 2004
10. River Sand & Stone Mining (Tambunan, Papar, Sapulut, Beaufort, Ranau, Tuaran, Tawau, Kota Belud, Tamparuli), 1999 - 2004
11. Power Plants (120 MW Teluk Salut, 60 MW Libaran, 40 MW Power Barge, 20 MW Seguntor, 32 MW Batu Sapi, 100 MW Sepangar, 9.8 MW Co-Gen) 1995 - 2004
12. Ports Development (Kota Kinabalu, Sandakan, Sabah Shipyard) 1995 - 1996
13. Industrial Estates (Kudat, Keningau) 1996 – 1997
14. Infrastructure (Jalan Tandek-Pitas, Jalan Nangoh-Kanibongan, Jalan Tawau-Sandakan, Jalan Labuk, Laluan Jalan Pantai, Karamuning Interchange, Jalan Tenom – Beaufort, Jalan Pantai Semporna, Jalan Keningau – Kimanis, Jalan Sapulut – Kalabakan, Jalan Telupid – Tongod, Jalan Ranau - Tambunan) 1997 - 2004
15. Industrial Plants (Lahad Datu Flour Mill, Felda Palm Oil Refinery, Tawau Fibreglass Factory, Pitbaka Pre-Mix Plant, Sandakan Brick Factory, Fertiliser Plant, Glyphosate Plant, Cement Plant, Jintan Gas Field, Surimi Plant) 1997 - 2004
16. Palm Oil Plantations (Felcra Kiabau Plantation, Kinabatangan Plantation) 1998 - 2000
17. Resorts (Mamut Resort, Usukan Resort, Tabin Lodge, Mabul Island), 1998 - 2003
18. Housing (Teamgold Project Sandakan, SMK Mat Salleh II Ranau, Lahad Datu Commercial Development), 1998 - 2004
19. Incinerator (Oily Sludge for Libaran Power Plant), 1996
20. Forestry (Kalabakan, Keningau, Pensiangan, Tenom, Telupid, Sook, Telupid, Kota Marudu, Nabawan, Tomani, Sipitang, Ranau, Lahad Datu, Sandakan, Beluran, Sapulut), 2000 - 2004

**Detailed EIA**

- 1 Brent oil and gas field redevelopment project for Shell UK, 1993
- 2 New Nelson oil & gas field at North Sea for Shell UK, 1993

**Environmental Monitoring**

Experiences in wide-range of environmental monitoring covering area of groundwater, aqueous discharges, atmospheric emissions and noise. Environmental monitoring carried-out include:

**Groundwater**

1. Solid-waste dumping site for Brunei Shell, 1987-1988
2. Oily-waste treatment facilities (land-farming method) for Sarawak Shell, 1989-1992

**Aqueous Discharges**

1. Cooling water discharges from Methanol plant for Sabah Gas Industries, 1986-1988
2. Process water discharges from Iron plant for Sabah Gas Industries, 1986-1988
3. Oily water discharges from crude oil terminal treatment facilities for Brunei Shell, 1988
4. Oily water discharges from crude oil terminal treatment facilities for Sarawak Shell, 1989-1992
5. Effluent and ambient water quality from power plants in Sabah (120MW Melawa, 60MW Libaran, 32MW Batu Sapi), 1998 – 2000
6. Effluent and ambient water quality from quarries in Sabah (Lian Seng, Bukit Kukusan, CPSB, ACB, Marcojuta, Hypervictory, Anjur Megah, Belus Hasil, Silam, Kazusaya, Kuta), 1997 – 2000
7. Effluent and ambient water quality from palm oil plantations/mill in Sabah (Nangoh Scheme, Pamol Estate, Abedon), 1998 - 2000

**Atmospheric Emissions**

1. Dust emissions from Iron plant for Sabah Gas Industries, 1986-1988
2. Gas flaring / venting from North Sea oil and gas platforms for Shell UK, 1993-1994
3. Fugitive gas emissions from gas terminals in England and Scotland for Shell UK, 1993-1994
4. Ambient dust quality of quarries in Sabah (Lian Seng, Bukit Kukusan, CPSB, ACB, Marcojuta, Hypervictory, Anjur Megah, Belus Hasil, Silam, Kazusaya, Kuta), 1997 – 2000
5. Ambient dust quality of power plants in Sabah (120MW Melawa, 60MW Libaran, 32MW Batu Sapi), 1998 – 2000
6. Stack emissions of power plants in Sabah (120MW Melawa, 60MW Libaran, 32MW Batu Sapi), 1998 – 2000
7. Stack emissions of palm oil mills in Sabah (Abedon, Melewar, Asiatic, Tenagang, Tanah Emas), 1999 – 2000
8. Stack emissions of timber sawmill in Sabah (NOA), 2000

**Noise**

1. Noise from Power plant for Sabah Gas Industries, 1986-1988
2. Noise from onshore drilling operations for Brunei Shell, 1988
3. Noise from oil and gas production operations for Sarawak Shell, 1989
4. Noise from power plants in Sabah (120MW Melawa, 60MW Libaran, 32MW Batu Sapi), 1998 – 2000
5. Noise from quarries in Sabah (Lian Seng, Bukit Kukusan, CPSB, ACB, Marcojuta, Hypervictory, Anjur Megah, Belus Hasil, Silam, Kazusaya, Kuta), 1997 – 2000

**Baseline**

1. Macrobenthos survey for oil and gas operations for Brunei Shell, 1988
2. Macrobenthos survey for Baram Delta Gas Gathering project for Sarawak Shell, 1990
3. Air quality at Mossmorran, Scotland for Shell UK, 1993-1994

**Environmental Training**

Conduct environmental training for wide-range of staff and environmental presentation to conferences / meetings. Environmental training conducted include:

1. Environmental training for middle management and supervisory staff for Sarawak Shell, 1989-1992.
2. Environmental training for environmental focal-points for Shell UK, 1993
3. Environmental awareness training to technical staff for Sarawak Shell, 1991-1992
4. Environmental awareness training for SESB, SUDC and Sabah Shipyard, 1997 - 1998

**Abandonment and Rehabilitation**

Experiences in environmental aspects of abandonment of offshore structures and redevelopment of oil and gas field in North Sea. Abandonment and rehabilitation projects handled include:

1. Field trial of vegetation cover for onshore drilling for Brunei Shell, 1988
2. Rehabilitation of Lutong river for Sarawak Shell, 1990-1992
3. Abandonment of Brent Spar oil floating storage structure for Shell UK, 1993-1994
4. Abandonment of Fulmar FSU/SALM for floating storage unit and mooring system Shell UK, 1994
5. Redevelopment of Brent oil and gas field for Shell UK, 1994

**Oil Spill and Contingency Planning**

Extensive experience in review of oil spill capability and preparation of emergency plan. Environmental projects handled include:

1. Review of oil spill capability for Brunei Shell, 1988
2. Review of oil spill capability of Sarawak Shell, 1991 (as a leader of high level task force)
3. Preparation of oil spill contingency plan for Sarawak Shell, 1992
4. Review and installation of oil spill computer model STOLOM (Short Term Oil Movement) for Sarawak Shell, 1992
5. Review and installation of oil spill computer model OSIS (Oil Spill Information System) for Shell UK, 1993

**Environmental Audit / Review**

Experiences in environmental audit, review and inspection for oil, natural gas and petro-chemical operations. Audit and review participated / carried-out include:

***Environmental Audit***

1. Environmental Management Audit for Sarawak Shell, 1992
2. Environmental Management Audit for Shell U.K., 1994
3. Environmental Audit of Gas Field Offshore for Sarawak Shell, 1991
4. Environmental Audit of quarries in Sabah (CPSB, Marcojuta, Kazusaya, Kuta, Bukit Kukusan, Belus Hasil), 1997 - 2000

***Environmental Reviews***

1. New Galleon gas field for Shell UK, 1993
2. Refurbishment of Brent oil and gas field for Shell UK, 1993
3. Abandonment of Brent Spar oil floating storage for Shell UK, 1994

***Environmental Inspections***

1. Methanol, Iron and Power plants operations for Sabah Gas Industries, 1986 & 1987
2. Oil and gas drilling, production, storage and transportation for Brunei Shell, 1988
3. Oil and gas drilling, production, storage, transportation and refining operations for Sarawak Shell, 1989 to 1992



**Waste Management**

Knowledge in waste regulations, management, recycling and minimisation and disposal. List of waste projects handled include:

1. Disposal of scheduled and industrial wastes for Sabah Gas Industries, 1986-1987
2. Usage and disposal of chemicals for Brunei Shell, 1988
3. Disposal of industrial waste for Brunei Shell, 1988
4. Design and monitoring of oily waste treatment facility via land-farming for Sarawak Shell, 1989
5. Waste inventory survey for Sarawak Shell, 1990
6. Gas flaring/venting reduction project for Shell UK, 1993
7. Proposed Chicken Poultry at Lok Kawi, 1998
8. SIP Milk/Beverage Factory at Kota Kinabalu, 2000

**Environmental Data**

Experiences in environmental data gathering and analysis, that include:

1. Annual environmental report for Sabah Gas Industries, 1986-1987
2. Environmental inspections report for Brunei Shell, 1988
3. Environmental incident recording and potential matrix for Sarawak Shell, 1990
4. Computer-based atmospheric emissions database for Shell UK, 1993
5. Monthly, quarterly and annual environmental reporting for Shell UK, 1993-1994

**Environmental Document**

List of environmental documents prepared on special subject include:

1. Environmental Monitoring Manual for Sabah Gas Industries, 1986
2. Summary of Malaysian Environmental Legislation related to oil and gas industry for Sarawak Shell, 1989
3. Environmental Pollution Legislation Guide for Shell UK, 1993
4. Atmospheric Emissions Data for Shell UK, 1993-1994
5. Code of Practice for Ozone Depleting Substances for Shell UK, 1994
6. EIA Guidelines for River Sand and Stone Mining for ECD/DANCED, 2000
7. River Stone and Sand Policy for State of Sabah, 2000
8. Environmental Investigation, Administrative Enforcement & Prosecution Manual for ECD/DANCED, 2000

**Environmental Legislation**

Extensive knowledge in environmental legislation and related regulations of Malaysia, United Kingdom, European Union, and United States of America. Experiences in legislative front include:

1. Prescribed processes application for Sabah Energy Corporation, 1983
2. Review Malaysian environmental legislation related to oil and gas industry for Sarawak Shell, 1989
3. Waste treatment facilities licence application for Sarawak Shell, 1989
4. Review UK and European environmental legislation related to oil and gas industry, and preparation of future legislative scenarios for Shell UK, 1993
5. DOE written approval applications for asphalt plants, palm oil mills, power plants, and generators, 1995 – 2001

*Name:* **Dr. ANTHONY GORDON GREER**

*Position:* ENVIRONMENTAL ADVISOR

*Date of Birth:* 10.09.1959

*Place of Birth:* England

*Nationality:* British

*Academic Qualifications:* Doctor of Philosophy (Ph D) in Hydrology & Biological Science  
University of London, 1987

Bachelor of Science in Geological & Zoological Science (Hons)  
University of London, 1982

*Employment Record:*

**July 2004 to-date**

As *Environmental Advisor*, with Sinoh Environmental Sdn Bhd. Responsible in providing biological and hydrological inputs to EIA Study and having in-depth knowledge of Maliau Basin Conservation Area.

**1999 to June 2004**

As *Consultant*, with COWI Consulting Enginners & Planners, Denmark. Attached to the Department of Rural Development and Natural Resource Management with duty stations in Malaysia (Sabah, Sarawak and Pahang), Thailand and Vietnam.

**1993 to 1999**

As *Senior Lecturer*, with University of Singapore. Fields of specialisation include (i) hydrology and water resource monitoring and management; (ii) Applied remote sensing and geographical information system (GIS) for natural resource management.

**1990 to 1992**

As *Senior Scientist*, with Royal Society of London and attached to Southeast Asia Rain Forest Research Programme based in Malaysia.

**1987 to 1990**

As *Post-Doctoral Research Associate*, with Natural Environment Research Council (University of Manchester). Based in Malaysia to study the hydrology and land use management issue in Sabah.

**1983 to 1987**

Undertake *Ph D Research*, at University of London. Monitoring the transport and deposition of sediments and associated environmental impacts – post-volcanic eruption of Mount St. Helens, Washington State, U.S.A. Duty stations at London, U.K. and Washington State, U.S.A.

**1983**

As *Exploration Geologist*, with Exxon (London & Scottish Marine Oil Exploration), based in Kalimantan Indonesia.

**1982 to 1983**

As *Technical Assistant*, with Barnes Engineering, New Zealand. Job duty include planning and construction of earth fill run of river hydroelectric project.

*Professional Experience:*

**1. Water Resource Assessment**

Over 15 years experience instrumenting rivers and groundwater in order to assess and monitor surface and subsurface water quantity and quality.

**2. Integrated Catchment and land Use Planning**

Extensive practical experience in Southeast Asia in organising and leading environmental management, monitoring & assessment programmes to assess and plan for the hydrological impacts of land-use/environmental change, particularly in relation freshwater and associated wetland ecosystems.

Three years practical experience in mapping, monitoring and assessing the hydrological and physical properties of fresh water peat swamp forest and peat lands in Malaysia.

Extensive practical experience in monitoring and advising on the hydrological and environmental impacts of land use change, with particular reference to steep lands in rapidly developing environments.

Advisor on catchment mapping and zoning including riparian zones and flood hazard maps.

The integration of physical, ecological and social data sets into catchment and other land use plans.

Considerable practical experience in the development of regional environmental plans and State structural plans.

Team leader experience in monitoring Land Ocean Interaction in the Coastal Zone.

**3. Institutional Capacity Building for Environmental Management**

Extensive experience of working with national governments for the development of Environmental Management Plans and Programmes and associated Policy, Rules and Regulations.

Developing and writing guidelines for the implementation of the above.

Experience in the establishment of environment related multiple stakeholder workgroups – both national and international. Identifying TOR, outputs and objectives & subsequent follow up activities; subsequent report preparation and publication procedures; including public awareness materials – in a variety of formats.

An established record of being able to interact and communicate well with all levels of participants in a diverse array of environments, settings and cultures. This also includes experience in team leading multi-disciplinary projects in tropical environments.

Sixteen years of experience in liaising with the international scientific community. This also includes appropriate reporting to a broad range of stakeholders (industry, government and NGOs).

Five years of multi-lateral and bi-lateral project reporting and management experience, including writing TOR for and supervising national and international consultants, managing component budgets, developing and overseeing work-plans.

#### **4. Geographical Information Systems and Remote Sensing**

The design and implementation of appropriate remote sensing procedures to map land cover and land use change. Integration of information into regional and national environmental management plans and the integration of environmental issues into integrated catchment and land-use management plans.

Experience with using and instructing ArcView 3.2, Spatial Analyst, 3D Analyst, Image Analyst and Data Automation Kit (DAK) (ESRI Software). Also ENVI 3.4 image analysis and River Tools software (Research Systems Colorado) and R2V map vectorization software (Able Software Corp, Lexington, MA). Use of Digital Elevation Models for catchment management and planning. Professionally proficient with Corel Draw for the development and publication of public awareness materials. Proficient with most common software packages including web-based publishing.

#### *Selected Assignments:*

**Indonesia: April - May 2004 – (2 months).**

**Project: South and Central Kalimantan Production Forest Project (European Union funded)**

**Position: Environmental Management Specialist**

- Developed Fuel and Oil Management Standard Operating Procedures for two forest concessionaires.

**Thailand: November 2003 – February 2004 (4 months).**

**Project: Capacity Building of the Waste Water Management Authority of Thailand (Danida funded)**

**Position: Wetlands Specialist**

- National, regional and local assessment and planning for appropriate waste water management options. Drafting of planning paper for Ministry of Natural Resources and Environment.
- Integration of environmental considerations and other criteria to identify potential sites for constructed wetlands and their contribution towards general wetland conservation.

**Malaysia: May 2002 – May 2003 (14 months).**

**Project: Conservation and Sustainable Use of Peat Swamp Forests and Associated Water Regimes in Malaysia (Danida funded) Departments of Forestry (Sabah and Pahang)**

**Position: Team Leader for water resource monitoring and management planning**

- Plan, design & implement water resource monitoring programme and associated training activities.
- Design and implementation of an appropriate Water Resource and Environmental Management Information System.
- Integration of remote sensing and GIS into land use planning, zoning and management.
- Incorporation of water resource considerations into a Land Use Management Plan.
- Production of public awareness materials.
- Organise and convene stakeholder workshops and training activities in association with the above.

**Sarawak, Malaysia: 04/2003 – 5 months and 11/2003 – 8 months**

**Project: Conservation and Sustainable Use of Tropical Peat Swamp Forests and Associated Wetland Ecosystems (GEF/UNDP funded)**

**Position: Water resources and aquatic ecosystems advisor**

- Design long term environmental monitoring programme & associated training package for Loagan Bunut Lake and associated forest & river systems, Sarawak.
- Production and mapping of Protected Area management zones and options associated with the above.
- Disseminate preliminary findings to stakeholders & plan follow up activities.

**Malaysia: May 2001 – 8 months**

**Project: Capacity Building for Integrated Catchment Planning & Management, Sabah (Danced funded)**

**Position: Team Leader for GIS and Land Use Management**

- Developed procedures to assess & identify environmental hazards related to land use – mainly related to vegetation removal and soil erosion in steep-lands
- Integration of land-use, ecological and social issues into Catchment Management Plan.
- Flood hazard mapping
- Design and production of awareness raising materials for the above. Organising and convening public awareness and other stakeholder meetings and workshops associated with the above
- Drafting of Catchment Management Plan

**Malaysia: October 1999 – 10 months.**

**Project: Management of Maliau Basin Conservation Area, Sabah (Danced funded)**

**Position: Assistant Chief Technical Advisor**

- Identification, mapping and zoning of conservation areas and associated buffer zones based on the integration of physical, ecological & rural community development data
- Design of logistical support procedures for the intended field studies centre and conservation area

**Malaysia: September 1999 – 26 months.**

**Project: Capacity Building of the State Environment Protection Department, Sabah, Malaysia**

**Position: Team Leader – Environmental Management**

- Designing and working with capacity building programmes in a number of institutional setting, but in particular planning for water resource and environmental management within the government sector in response to land use change and development activities.
- Wide-ranging experience in identifying institutional development areas and the subsequent development of advancement activities including formal training, 'on the job' learning, experimental team work and 'learning by doing'.
- Revision of the State Environment Protection Enactment
- Drafting of new State Environmental Impact Assessment procedures and accompanying handbook & guidelines
- Development of guidelines for an appropriate Environmental Impact Assessment for Logging and Forest Clearance activities – with particular reference to forest clearance activities on steep lands.
- Development of guidelines for Construction Activities on Hillslopes
- Drafting of State Structure Plan (Environment) – Sabah, Malaysia
- Development of new Regional Environmental Land Use Plans and associated memorandum
- Compilation, production and publication of State Environmental Indicator Report
- Identification and establishment of appropriate environmental monitoring programmes for environmental & natural resource management issues
- Supervised the design and construction of Department's Home Page
- A broad range of awareness activities associated with the above
- Organising and convening stakeholder meetings and workshops associated with the above

**Singapore: 1997 - 1999 – 24 months.**

**Project: Singapore - Land Ocean Interaction in the Coastal Zone (LOICZ)**

**Position: Team Leader and overall in charge of the environmental monitoring component of the programme**

- Preparation of research proposal
- Establishment of monitoring stations and procedures to assess urban and marine water quality and to identify sources of pollution
- Reporting of results to government and the scientific community

**Laos: 1996 - 1 month**

**Project: Proposed Nam Thuen II Hydroelectric Programme (Transfield Corporation)**

**Position: Senior Scientist**

- Evaluation and submission of proposed EIA procedures to monitor for impacts on (i) the environmental impacts of flooding at the intended reservoir site; and (ii), sediment sources and budgets for the proposed dam reservoir

**Malaysia: 1990 - 1992 – 24 months.**

**Project: Royal Society of London Southeast Asian Rain Forest Research Programme**

**Position: Senior Scientist**

- Management and co-ordination of research programmes
- Liaison between scientific community, local and state level government departments, commercial logging companies, communities and local educational institutions
- Liaison between local scientific community and international institutions
- Overall in charge of environmental research programme planning and co-ordination of research activities
- Contributed towards drafting of Management Plan

**Kenya & Tanzania: 1992 – 2 months.**

**Project: Commonwealth Geographical Bureau Workshop on Soil Erosion in the Urban and Rural Environmental**

**Position: Joint organiser**

- Convene and organise presentations, seminars and field trips for mid-term career civil servants
- Production of workshop materials
- Additional duties – field supervision of PhD post-graduate, University of Manchester/& Daa'r Es Salaam – Soil Erosion and Agricultural Development in Steeplands

**Malaysia: 1987 - 1990 – 36 months.**

**Project: Monitoring Tropical Rain Forest Disturbance in Response to Commercial Logging Activities**

**Position: Field Based Team Leader**

- Installation of instruments in 3 water catchment to monitor environmental impacts of land use change
- Responsible for recruitment and training of local graduates.
- Reporting of results to State and National Government
- Reporting of results to the national and international scientific community

*Selected Publications (international referred):*

Greer, T & Perry, M. (2003) Environment and natural resources: towards sustainable development. In; Southeast Asia Transformed: a geography of change. Edited by Chia Lin Sien). Institute of Southeast Asian Studies, Singapore. Pp 143-189

Douglas, I. Bidin, K., Balamurugan, G., Chappell, N.A., Walsh, R.P.D., Greer, T. and Sinun, W. (1999) The role of extreme events in the impacts of selective tropical forestry on erosion during harvesting and recovery phases at Danum Valley, Sabah, Philosophical Transactions of the Royal Society of London. B. 354, 1749-1761.

Greer, T. Bidin, K. & Douglas, I. (1998) A Spreadsheet (Lotus 1-2-3) based technique for analysing storm suspended sediment data with particular reference to logging disturbance in tropical forests. Earth Surface Processes and Landforms.

Greer, T. (1998) The development of some national and international conservation issues: Singapore- Malaysia. (Asian Journal of Environmental Management).

Bidin, K & Greer, T. (1997) A spreadsheet based technique (Lotus 1-2-3) for separating tropical forest storm hydrographs using Hewlett and Hibbert's slope. Earth Surface Processes and Landforms.

Greer, T., Sinun, W., Douglas, .I. & Bidin, K. (1996) Long term natural forest management and land use change in a developing tropical catchment, Sabah. International Association of Hydrological Sciences, 236, 453-461.

Greer, A. G., Douglas, I., Bidin, K. & Sinun, W. (1995) Monitoring geomorphological disturbance and recovery in commercially logged tropical forest, Sabah, East Malaysia. Singapore Journal of Tropical Geography, 16 (1) 1-21.

Douglas, I., Greer, A.G., Bidin, K. & Spilsbury, M. (1993) Impacts of rainforest logging on river systems and communities in Malaysia and Kalimantan. Global Ecology and Biogeography Letters 3, 245-252.

Marsh, C. Greer, A.G. (1992) Forest land use in Sabah. Philosophical Transactions of the Royal Society of London. B. 331-339.

Douglas, I., Spencer, T. Greer, A.G., Bidin, K., Sinun, W, & Meng, W.W. (1992) The impact of selective commercial logging on stream hydrology, chemistry and sediment loads in Ulu Segama rainforest, Philosophical Transactions of the Royal Society of London. B. 397-406.



**Name:** IBNIL ABD WAHID

**Position:** ENVIRONMENTAL MANAGER

**Date of Birth:** 06.07.1971

**Place of Birth:** Sabah

**Nationality:** Malaysian

**I/C No:** 710607-12-5413

**Academic Qualifications:** Bachelor of Science in Developmental Science (Hons)  
University Kebangsaan Malaysia, Kuala Lumpur, 1995

*Employment Record:*

**April 1996 to May 99**

As *Environmental Officer*, with Sinoh Environmental Sdn Bhd. Assist in the preparation of Environmental Assessment studies and field visit to project sites.

**June 1999 to-date**

Promoted to *Environmental Manager*, with Sinoh Environmental Sdn Bhd. Responsible in the preparation of Environmental Assessment studies, carry out field environmental monitoring, and responsible on mapping. Ibnil specialities are in the field of socio-economic including human surveys, and land use including data acquisition, mapping and GIS.

*Environmental Experience:*

**EIA Studies:**

1. Aggregate Quarries (Telipok, Silam, Inanam, Penampang, Tamparuli, Kimanis, Sipitang, Tawau, Sandakan, Semporna, Kudat, Kota Marudu, Keningau, Beluran, Pitas, Sapulut), 1996 – 2004
2. River Sand & Stone Mining (Tambunan, Papar, Sapulut, Beaufort, Ranau, Tuaran, Tawau, Kota Belud, Tamparuli), 1999 - 2004
3. Power Plants (60 MW Libaran, 40 MW Power Barge, 20 MW Seguntor, 32 MW Batu Sapi, 100 MW Sepangar, 9.8 MW Co-Gen) 1996 - 2004
4. Ports Development (Kota Kinabalu, Sandakan, Sabah Shipyard) 1996
5. Industrial Estates (Kudat, Keningau) 1996 – 1997
6. Infrastructure (Jalan Tandek-Pitas, Jalan Nangoh-Kanibongan, Jalan Tawau-Sandakan, Jalan Labuk, Laluan Jalan Pantai, Karamunsing Interchange, Jalanraya Pantai Semporna, Jalan Keningau – Kimanis, Jalan Sapulut – Kalabakan, Jalan Telupid – Tongod, Jalan Ranau - Tambunan) 1997 - 2004
7. Industrial Plants (Lahad Datu Flour Mill, Felda Palm Oil Refinery, Tawau Fibreglass Factory, Pitbaka Pre-Mix Plant, Sandakan Brick Factory, Fertiliser Plant, Glyphosate Plant, Cement Plant) 1997 - 2004
8. Palm Oil Plantations (Felcra Kiabau Plantation, Kinabatangan Plantation) 1998 - 2000
9. Resorts (Mamut Resort, Usukan Resort, Tabin Lodge, Mabul Island), 1998 - 2003
10. Housing (Teamgold Project Sandakan, SMK Mat Salleh II, Lahad Datu Commercial Development), 1998 - 2004
11. Forestry (Kalabakan, Keningau, Pensiangan, Tenom, Telupid, Sook, Telupid, Kota Marudu, Nabawan, Tomani, Sipitang, Ranau, Lahad Datu, Sandakan, Beluran, Sapulut), 2000 - 2004

*Name:* **DYDIMUS @ DAY JOOS J.**

*Position:* ENVIRONMENTAL OFFICER

*Date of Birth:* 30.09.1979

*Place of Birth:* Sabah

*Nationality:* Malaysian

*Academic Qualifications:* Bachelor of Science in Forestry (Hons)  
University Malaysia Sabah, Kota Kinabalu, 2002

*Employment Record:*

**Jan 2003 to-date**

As *Environmental Officer*, with Sinoh Environmental Sdn Bhd. Assist in the preparation of Environmental Impact assessment studies and field visit to project site.

*Environmental Experience:*

**EIA Studies:**

1. Aggregate Quarries (Telipok, Sapulut), 2003 – 2004
2. River Sand & Stone Mining (Tamparuli), 2003 - 2004
3. Infrastructure (Jalan Ranau - Tambunan) 2003 - 2004
4. Housing (SMK Mat Salleh II, Lahad Datu Commercial Development), 2003 - 2004
5. Forestry (Lahad Datu, Tenom, Telupid, Beluran, Sapulut), 2003 - 2004

*Name:* **BETSY SYLVESTER**

*Position:* ENVIRONMENTAL OFFICER

*Date of Birth:* 24.10.1980

*Place of Birth:* Sabah

*Nationality:* Malaysian

*Academic Qualifications:* Bachelor of Science in Forestry (Hons)  
University Putra Malaysia, Serdang, 2002

*Employment Record:*

**Jan 2003 to-date**

As *Environmental Officer*, with Sinoh Environmental Sdn Bhd. Assist in the preparation of Environmental Impact assessment studies and field visit to project site.

*Environmental Experience:*

**EIA Studies:**

1. Aggregate Quarries (Telipok, Sapulut), 2003 – 2004
2. River Sand & Stone Mining (Tamparuli), 2003 - 2004
3. Infrastructure (Jalan Ranau - Tambunan) 2003 - 2004
4. Housing (SMK Mat Salleh II, Lahad Datu Commercial Development), 2003 - 2004
5. Forestry (Lahad Datu, Tenom, Telupid, Beluran, Sapulut), 2003 - 2004

*Name:* **MOHD ARIFFIN BIN MAT KASSIM**

*Position:* ENVIRONMENTAL OFFICER

*Date of Birth:* 09.07.1978

*Place of Birth:* Sabah

*Nationality:* Malaysian

*Academic Qualifications:* Bachelor of Arts in Geography (Hons)  
University Malaya, Kuala Lumpur, 2002

*Employment Record:*

**April 2003 to-date**

As *Environmental Officer*, with Sinoh Environmental Sdn Bhd. Assist in the preparation of Environmental Impact assessment studies and field visit to project site.

*Environmental Experience:*

**EIA Studies:**

1. Aggregate Quarries (Telipok, Sapulut), 2003 – 2004
2. River Sand & Stone Mining (Tamparuli), 2003 - 2004
3. Infrastructure (Jalan Ranau - Tambunan) 2003 - 2004
4. Housing (SMK Mat Salleh II), 2003 - 2004
5. Forestry (Lahad Datu, Tenom, Telupid, Beluran, Sapulut), 2003 - 2004