

CURRICULUM VITAE

Richard John WATLING

Personal Details:

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Date of Birth: 13 November 1951
Place of Birth: Kampala, Uganda
Citizenship: Fiji & UK
Country of Residence: Fiji.
Marital Status: Married (two children)



Key Areas of Experience:

Environment/Conservation Planning and Management
Environmental Assessment
Conservation, Wildlife Management
Protected Area Management
Tropical Forest Ecology, Terrestrial Vertebrate Ecology
Island Ecology;
Mangrove Ecology and Management

Country Work Experience:

Fiji, American Samoa, Cook Islands, Kiribati, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu,
Malaysia, Indonesia (Java, Bali, Sumatra, Kalimantan, Sulawesi), Cambodia, Lao PDR, Galapagos Islands, Ecuador
Tanzania

Education:

1973-77 Ph.D. Dept. of Applied Biology, Univ. of Cambridge, UK.
1970-73 B.Sc. (Hons.) Zoology, Bristol University, England.

Additional Training.

- Environmental Auditor – ISO 14000. Quality College (Telarc), Auckland New Zealand.
- British Sub Aqua Club – Advanced Diver

Honorary Positions & Professional Associations:

1985 - 88 Research Associate of the Smithsonian Institution, Washington.
1986- Research Associate, Inst. of Applied Science, Univ. of the S. Pacific.
1977 - Scientific Fellow of the Zoological Society of London.
1982 - Fellow of the Cambridge Philosophical Society. (Life)
1977 - Member of the British Ornithologists' Club.
1994 - Fellow of the Environment Research Institute, University of Wollongong
1988 - 95 Editor, **Domodomo**, Journal of the Fiji Museum
1995- Member, Commission on National Parks and Protected Areas - IUCN, The World Conservation Union.
1999-2009 BirdLife International – Affiliate (National Representative) for Fiji.
2007- Executive Trustee – Fiji Nature Conservation Trust: NatureFiji-MareqetiViti

Websites: www.environmentfiji.com ; www.naturefiji.org

CV - Date of Revision: March 1st 2021.

EMPLOYMENT RECORD

From 1984 - present

Position Held : Founder and Principal of Environment Consultants (Fiji) Ltd

Description of Duties : Responsible for the provision of a specialist environmental service to Fiji's public and private sectors. Services have included a wide range of environment studies from faunal surveys to assessment of mining impacts; leading a team formulating Fiji's National Environment Strategy to advice on ecotourism development and training for coastal resorts. The practice is Fiji's sole specialist environmental planning service and has established a good working relationship with local architects and engineers to integrate the scoping and assessment of environmental issues associated with a wide variety of developments into project design and management.

From 1994 - 1996

Employer : Tonkin & Taylor International, Kuala Lumpur, Malaysia

Position Held : Consultant Environment Group Manager

Description of Duties : Manager of Tonkin & Taylor's Malaysian company - T&T Konsult Sdn. Bhd.'s Environment Group, responsible for management, marketing activities, client relations and provision of quality assurance, with specialist input in the ecological, natural resource management and impact assessment sectors.

From 1983 - 1984

Employer : Aqua Foods Fiji Ltd.,

Position Held : Manager

Description of Duties : Management of an eighteen month Pilot Project undertaking nutritional research to utilise locally available feed for cage culture of Tilapia. Preparation of a feasibility report for the shareholders.

Projects Commissioned and/or in Progress:

2021 - Certification of Wild Harvested Turmeric. Advice and Assistance to Produce Processors Ltd Pty. for their certification application Ecocert SA for the Ecocert Organic Standard.

2019 – Safeguards Specialist (Environment). Asian Development Bank Investment Program Management Unit Institutional Support – Fiji Urban Water Supply and Wastewater Management Investment Program (Construction of the Rewa River Water Supply Scheme and Augmentation Works Planning & Design for Kinoya Waste Water Treatment Plant). 24 months over four years

2014 – Nawi Marina. EIA preparation of foreshore construction of the approved Nawi Marina Project Savusavu, and environment manager of its subsequent construction. Phase 1 – Marina basin excavation completed, pending installation of marina infrastructure.

2009 – Heart of Palm (*Bactris gasipaes*) sustainable cultivation, market development and economic feasibility pilot project as a component of the Endangered Fiji Sago Palm (*Metroxylon vitiensis*) Species Recovery Plan, at Hogamata Farm, Sigatoka Valley.

Projects Completed:

These are divided into four categories:

1. **Environmental Effects, Impact and Management;**
2. **Forestry;**
3. **Protected Area Management, Resource Surveys and Biodiversity; and,**
4. **Others – including Project Formulation and Reviews; Ecotourism; Training etc.**

Environmental Impact and Management (Environmental Impact Assessment, Planning, Environmental Management Plans, Audits or Reviews)

2017 – Fiji – Safeguards Specialist (Environment). Asian Development Bank Project Advance Loan for Water Supply, Wastewater Treatment, and Sustainable Service Delivery Capacity by the Water Authority of Fiji. 10.5 months over 1 year.

2017 – Fiji – Environment & Social Specialist. Full Feasibility Study for 1.55 MW Solar PV Installation in Taveuni, Fiji Site screening of nine sites with sub-sequent full feasibility analysis of two selected sites followed by preparation of Environment and Social Impact Assessment of two selected sites. International Finance Corporation environmental/social standard required. 5 months over 18 months.

2016 – Fiji – Manager. Disposal of old, expired and unlabelled chemicals at the laboratory of the Mineral Resources Department. In association Contract Environmental Ltd (New Zealand), Environment Consultants Fiji provided the services of an industrial chemist Mr John O’Grady to oversee the disposal of the chemicals which involved a combination of neutralization, disposal to landfill, burning of inflammables at an incinerator and export of others to Waste Management Technical Services, New Zealand. 3 months.

2015-18 – Fiji – Environment Specialist. Environmental and social assessment of two port facilities in Fiji. Followed by assistance to Ports Terminal Services Ltd. with environmental and social issues with an intention of preparing Operation Environmental Management Plans – Confidential client – 8 months over 3 years.

2015 – Solomon Islands - Safeguards Specialist (Environment). Asian Development Bank – TA 8511 REG: Higher Education Assessment – University of the South Pacific Honiara Campus. Safeguards assessment for the proposed new campus in Honiara – one month.

2015 – Fiji – Environment Specialist – Prepared a due diligence report for a major confidential Island Resort, for potential Real Estate funders. The report was prepared to United States ASTM E1527 standard. One week.

2015 – Fiji – Biodiversity Specialist – ‘Biodiversity Risk and Opportunity Assessment’ of Tobacco growing in Fiji. Report for British American Tobacco (Fiji) Ltd. One month.

2015 – Environment Specialist – Environmental and social assessment of two port facilities in Fiji. Report to a confidential client (an European bank). 2 weeks.

2014 – Manager – Preparation of ‘3Rs’ (Reduce, Reuse, Recycle) Policy for Fiji. Assemble 3 person team, hold sectoral and public consultation, draft the policy for Department of Environment – one month.

2014 – Fiji – Environment Specialist. Environmental Choice New Zealand audit of Resene Fiji Ltd (paint manufacturer) factory in Suva, Fiji. Commissioned by Tonkin & Taylor Ltd, NZ – 2 days.

2014 – Fiji – Environment Specialist. Assistance to the team preparing Fiji’s Tourism Development Plan covering environment issues impacting Fiji’s tourism industry. TRC Tourism Ltd.. 2 weeks.

2014 – Fiji – Environment Specialist. Environmental Screening of nine mini-hydro sites and Initial Environmental Examination of three subsequently selected as a component of full design of the projects. Tokyo Electric Power Services Co., Ltd. for JICA. 2 months.

2011-15 – Vanuatu – Safeguards Specialist (Environment) Asian Development Bank – Vanuatu Interisland Shipping Support Project. Comprising: (i) infrastructure investments in wharves; (ii) establishment of a shipping services scheme; (iii) institutional restructuring and (iv) project management, administration and implementation services. 3 month input over 4 years during the management and implementation phase.

2014 – Fiji – Environment Specialist – Pre-purchase site examination for private client in Suva with Tonkin & Taylor Ltd. NZ,

2014 – Fiji – Environment Specialist – Feasibility Study for the Valaga Bay Port, Savusavu, Vanua Levu with Aurecon Consultants for Fiji Roads Authority.

2014 – Fiji – Environment Specialist. Environmental baseline work at the Nukudamu Copper Mine Prospect, Udu Point. Analysing lingering impacts in the wider environment of the mismanagement of the original mine which opened briefly in the 1960s. Intermittent from 1998-2014. Commissioned by Matai Holdings.

2013-16 – Tonga – Safeguards Specialist (Environment + Resettlement) Asian Development Bank – GRANT 0264 TON: Nuku'alofa Urban Development Sector Project II. 6 month input over 3 years during the implementation phase focusing on municipal services, water supply, contaminated soil remediation and solid waste management.

2013 – Fiji – Environment Specialist – Environmental Impact Assessment of the Mau Andesite Quarry, Mau, Namosi for Island Quarries Ltd.

2013 – Fiji – Environment Specialist – Construction Environment Management Audits – every month for Vunabaka Bay Resort Ltd. development on Malolo island; and, Nawi Island Ltd. development at Nawi, Savusavu.

2013 – Fiji – Environment Specialist– EIA, CEMP and Traffic Management Plan for the new Toko West Tailings Storage Facility for Vatukoula Gold Mines Ltd.

2013 – Fiji – Environment Specialist/Project Manager – EIA for the new Toko West Tailings Storage Facility for Vatukoula Gold Mines Ltd.

2012 – Fiji – Environment Specialist – EIA of the proposed Nawi Island Foreshore Development – Marina, coastal protection and mangrove reserve. Nawi Island Ltd.

2012 – Fiji – Environment Specialist – EIA of the Savusavu Sewage Treatment Plant, Cakaudrove for Water Authority of Fiji.

2011 – Fiji – Environment Specialist – EIA of the Korovou Water Treatment Plant and reticulation, Korovou, Tailevu for Water Authority of Fiji.

2011 – Fiji – Environment Specialist – Environmental Choice New Zealand audit of Resene Fiji Ltd (paint manufacturer) factory in Suva, Fiji. Commissioned by Tonkin & Taylor Ltd, NZ – 2 days.

2011 – Fiji – Environment Specialist – Environmental Management Plan for Sustainable Mahogany Industries Ltd.'s timber mill and factory at Pacific Harbour – 1 week.

2011 – Fiji – Environment Specialist – EIA of a Youth Sports Academy Complex at Sigatoka, Coral Coast, Viti Levu. Commissioned by Fiji Sports Council – 2 months

2011 – Fiji – Environment Specialist – EIA of the 65 km Wailoa to Nacocolevu 132 Kv Transmission Line. Full social and demographic surveys of all landowning clans along the length of the alignment and land use – biodiversity assessment. Commissioned by the Fiji Electricity Authority – 3 months.

2011 – Samoa – Environment & Resettlement Specialist: TA-7301-SAM: Preparing the water supply, sanitation and drainage project. Environmental and Resettlement Safeguard Specialist responsible for undertaking ADB Environment and Resettlement Safeguard analyses and reporting on these for the Investment Loan Preparation Project – 2.0 months.

2011 – Fiji – ISO 14001 Specialist: Preparation of Environmental Review and Plan for ISO 14001 accreditation for Total (Fiji) Ltd. Duration – 0.5 months.

2011 – Fiji – Environment Specialist – Environmental Management and Monitoring Plan for the upgrade of the Naqali to Serea (22 km) and Nacocolevu to Narata (15 km) roads. Commissioned by CCGC Ltd. – 0.5 months..

2011 – Fiji – Environment Specialist – EIA of the exclusive Kaibu Resort being developed on Kaibu Island, Lau Group. Commissioned marine, social, fauna and flora, and hydrogeological studies. Followed up with a Supplementary Addendum to the EIA to include quarry works as part of an upgrade of the airfield. Commissioned by Vatuvara (Fiji) Ltd. – 2 months.

2010 – Fiji – Environment Specialist – EIAs of two quarries in the western division for Flametree Developments (Fiji) Ltd. Basalt Quarries at Saru and Vuda with Quarry & Environmental Management Plans – 2 months.

2010 – Fiji – Environment Specialist – Independent review of the Vatukoula Gold Mine for listing on the Chicago Stock Exchange. Commissioned by Vatukoula Gold Mine Ltd. – 0.3 months.

2009-2011 – Vanuatu – Environment Specialist. US Millenium Challenge – Vanuatu Infrastructure Development Project. Environmental specialist attached to the office of the FIDIC Engineer to the project and responsible for reviewing all environmental reports and inspecting environmental measures undertaken by the contractor. Eleven months over three years.

2010 – Fiji – Environment Specialist – Environment Management Plan for the Maui Bay Estate integrated resort and subdivision, Nadroga. Commissioned by Maui Bay Estates Ltd. – 0.5 months

2010 – Fiji – Environment Specialist – Construction Environment Management Plan for the Demolition and Construction of Chicken Sheds, Waila, Nausori. Commissioned by Goodman Fielder International (Fiji) Ltd. – 0.25 months

2010 – Fiji – Environment Specialist – Waste management assistance to Fiji Fish fish processing factory at Lami, Suva for effluent discharge permitting. Commissioned by Fiji Fish Ltd. - 0.25 months.

2010 – Fiji – Environment Specialist – Preparation of Tender Documents for the Naboro Landfill Operator for 2010-2015. Commissioned by Fiji Government. – 0.5 months.

2010 – Fiji – Environment Specialist – EIA of the Coral Coast Inn, Korotogo. A development comprising a small number of self-contained units designed for people with disabilities, together with a large auditorium for cultural performances. Duration – 2 months.

2009 – Fiji – Environment Specialist. Environmental studies and EIA of bauxite extraction at Nawailevu, Bua. Commissioned or undertook 10 feasibility/baseline studies for the EIA of the project which includes a 30 ha mine site, a stockpile site, a quarry and a 600 m wharf. Duration 6 months over 2 years.

2009 – Fiji – Environment Specialist – EIA of the Outrigger Reef's foreshore development plans – a groyne and a small island on the fringing reef at the mouth of an occasionally flooding creek. Duration – 2 months.

2009 – Fiji – Environment Specialist – EIA of the Pleass integrated water extraction and bottling factory, residential subdivision, organic farming and eco-tourism development at Nabukavesi, Namosi. Duration – 2 months.

2009 – Fiji – Environment Specialist – ADB RSC-C91346 – Emergency Assistance Loan following the flooding on Viti Levu in January 2009. Duration – 0.5 months.

2009 – Fiji – Mangrove Specialist – Survey of the Rewa delta mangroves and associated areas to be impacted by proposed dredging of the Rewa River. Commissioned by the University of the South Pacific, Institute of Applied Science. Duration – 0.5 months.

2008-9 – Fiji – Environment Specialist. ADB 4764 Fiji – Renewable Power Sector Project. Responsible for preparing environmental and social assessments of proposed 150 km 132 kV Transmission Lines in line with ADB Safeguards Policy. Asian Development Bank.

2009 – Fiji – Environment Specialist. EIA of a low cost housing development, the Koroipita subdivision, Lautoka. Duration – 4 months.

2009 – Fiji – Environment Specialist. EIA of the the Navava subdivision, Salt Lake, Cakaudrove, Vanua Levu. Duration – 2.0 months.

2008 – Fiji – Environment Specialist – Environmental review of the resort for its owners in response to a legal challenge from the Native Land Trust Board, and on-going assistance to the resort owners and their legal advisers. Duration – 0.25 months.

2008 – Fiji – Environment Specialist – Technical review of soil report for Laucala Island and followed up by preparation of Laucala Island Quarantine Management Plan for the movement of plants to the island. Commissioned by Laucala Island Resorts Ltd. Duration 0.25 months.

2008 – Cook Islands – Environment Specialist – Review of environmental safeguards in the NZ Aid Water Supply Project for Mauke Island Community. Duration 0.5 months.

2008 – Cook Islands – Environment Specialist – Review of environmental issues relating to the upgrade of the Aitutaki Power Station. Duration – 0.25 months.

2008 – Fiji – Environment Specialist – ADB TA 4540. Social Survey for ADB Safeguard assessment for a loan to finalise the upgrading and tar-sealing of the Kings – Lodon Roads, Tailevu. Duration 0.5 months.

2008 – Fiji – Environment Specialist – Initial Environmental Assessment for a Feasibility Study on Hydropower Renewable Energy Development Project in the Wailoa River, Naitasiri. An IEE and Social Surveys of downstream villages and settlements. Commissioned by Tokyo Electric Power Services Co. Ltd. – 2.0 months.

2008 – Fiji – Environment Specialist – EIA of the Cane Bay Subdivision, Vuda, Ba. Duration – 3 months.

2008 – Fiji – Environment Specialist – Preparation of an Environmental Management Plan for Agro-Processing Navua Ltd., an agricultural product processor and wholesaler. Duration – 0.25 months.

2008 – Fiji – Environment Specialist – Monthly Environmental Inspections of the construction of the Pacific Point development at Caudua, to evaluate compliance with the CEMP and to provide advice on progressive requirements. Jan 2008-March 2009.

2007 – Fiji – Environment Specialist – Environmental Management Plan for the construction of the Orchid Inn, Lautoka, Ba.

2007 – Fiji – Environment Specialist – Environmental review of the Gatward Dairy Farm, Tailevu for a potential purchaser. Duration – 0.25 months.

2007 – Fiji – Environment/Forestry Specialist – Feasibility of the establishment of energy wood crops for electricity generation plants of Fiji Sugar Corporation and other Independent Power Producers. Two man team commissioned by the European Union. Duration 1.5 months.

2007 – Fiji – Project Environment Specialist – EIA of jetty and boat ramp at Maui Bay Estate, Nadroga. EIA for a piled jetty and boat ramp in a sensitive marine setting. Coastal Processes and community consultation contributed to the assessment. Commissioned by Maui Bay Estate. Duration 1.0 months.

2007 – Fiji – Environment Specialist – EIA of the Vuda Quarry – an basalt quarry adjacent to the existing Emure Quarry; geological resource assessment, landowner and local community consultation. Duration – 2.0 months.

2007 – Fiji – Project Manager – EIA of the Vunabaka Bay Resort, Malolo Island, Mamanuca Group. EIA of an integrated resort development with two small marinas and two external reclamations, with the creation of one sand island and creation of swimming areas. Specialist studies included – coastal processes, community consultation, fauna and flora, archaeological survey and marine baseline study. Commissioned by Vunabaka Bay Resort Fiji Ltd. Duration – 3.0 months.

2007 – Fiji – Project Manager – EIA of Phases 2-4 of the Pacific Point Integrated Resort Development at Caudua, Namosi. The EIA of Phase 1 – residential subdivision – was completed and approved in late 2006. The current EIA assesses the proposed foreshore reclamation, a marina and hotel refurbishment. Commissioned by Skyking Ltd. Duration – 2.0 months.

2004-7 – Fiji – Project Manager – Goodman Fielder International. Investigations and improvement of the wastewater from the chicken abattoir at Coloisuva including the design and supervision of a pilot project.

2006 – Fiji – Project Manager – EIA of the Sovi Bay Integrated Resort Development – a residential and hotel development on a greenfields site at Sovi Bay, Nadroga. Commissioned by Sovi Bay Limited. Duration – 3.0 months.

2006 – Fiji – Project Manager – EIA of the Vuda Villas Development – a small villa resort development. Commissioned by Wallaroo (Fiji) Limited. Duration – 2.0 months.

2006 – Tonga – Environment Specialist. ADB 4548 Tonga – Integrated Urban Development Project. Responsible for environmental management and assessment inputs in the preparation of the loan project and then undertaking environmental assessments of the proposed project activities. Asian Development Bank. Duration – 2 months

2006 – Fiji – Environment Specialist. ADB 4764 Fiji – Renewable Power Sector Project. Responsible for preparing environmental assessments of core and sub projects for the sector, and environmental reviews of recently completed projects and their EIAs. Asian Development Bank. Duration – 2 months

2006 – Fiji – Project Manager – EIA of the Naidiri Limestone Quarry at Malomalo, Nadroga. Commissioned by Matapo Ltd. Duration – 2 months

2006 – Fiji – Project Manager – EIA of the Naisosovu Island Development – an integrated resort and residential subdivision development with a marina and internal channel construction on Naisosovu Island, Sabeto River delta. Commissioned by RelCorp (Fiji) Ltd. Duration – 4.0 months.

2006 – Fiji – Project Manager – EIA of the Malolo Paradise Resort – an integrated resort development with offshore islands, marina and internal lagoon on Malolo Island, Mamanuca Group. Commissioned by Kemp Capital Ltd. Duration – 2.0 months.

2005 – Fiji – Project Manager – Report on Trade Waste issues for two Goodman Fielder International factories, in respect of the forthcoming Water & Sewerage Department's Trade Waste Policy. Duration – 0.25 months.

2005 – Fiji – Project Manager – EIA of the Nawi Island Resort – an exclusive resort with overwater villas, a marina and a managed residential community on Nawi Island, Savusavu. Commissioned by Nawi Island Fiji Ltd. Duration – 2.5 months. Duration – 2.5 months.

2005 – Fiji - Project Manager – EIA of the Sonaisali Resort Villas – a 25 residential villa complex adjoining the existing resort, with the planned construction of jetties and island coastal protection works. Commissioned by Sonaisali Villas Ltd. Duration – 2 months.

2005 – Fiji - Project Manager – EIA of the Laucala Island Resort Development – an exclusive resort development with a golf course, foreshore works, a jetty and island coastal protection works. Commissioned by Laucala Island Resort Ltd. Duration – 3 months.

2005 – Fiji – Environment Legislation and Management Specialist – ADB 4720 Capacity Building for Water & Sewerage Services. Duration – 5 months.

2005 – Fiji – Environment Specialist – Due Diligence Audit of the Hideaway Resort, Sigatoka for a potential purchaser – 0.25 months.

2004-2005 – Fiji – Project Manager – Revised Environmental Impact Assessment for the Natadola Marine Resort. A comprehensive EIA was prepared in 1998, but the project did not go ahead. It revived in 2004 and a new EIA commissioned to include some new developments and the findings of the original EIA. Commissioned by Natadola Land Holdings.

2005 – Cook Islands – Environment Specialist in the Aitutaki Island Power Study. Commissioned by Clay Engineering Ltd. Duration – 0.5 months.

2005 – Fiji – Project Manager – EIA of the Mango Bay Resort at Namatakula on the Coral Coast of Viti Levu. Commissioned by Mango Bay Resort Ltd. Duration – 2 months.

2003-5 - Fiji - Project Manager - Naboro Project Landfill. Commissioned by the Ministry of Local Government, Housing, Squatter Settlement and Environment, with funding by the EU to assist

in setting up the institutional structure - regulation, administration and management of the new Naboro Landfill. (Part time over 24 months).

2004 – Fiji – Project Manager – Social Impact Assessment of the Sabeto Quarry in western Viti Levu. Commissioned by Standard Concrete. Duration – 0.25 months.

2004-2005 – Fiji – Project Manager – Regional Environmental Assessment of the Studio City proposal for Yaqara, on the north coast of Viti Levu. The Yaqara Group has been working with the Government of Fiji for over seven years to drive the development of an audio-visual industry in Fiji. The audio visual industry includes the convergent media sectors of film, television, video, music and audio, computer software, e-commerce and telecommunications. The principal physical location of the industry is intended at the Yaqara Studio City where a suitable 2,200 ha site for a new town has been identified and a town plan prepared. Because of the regional implications of the project, a Regional EIA was required by the Government. Commissioned by the Yaqara Group. Duration – 6 months.

2004 – Fiji – Project Manager – EIA of the Likuliku Bay Resort on Malolo Island in the Mamanuca Island Group. A prestigious development with over-water bures and swimming pools on the fringing reef. Commissioned by New Line Investments Ltd. Duration – 3 months.

2004 – Fiji – Project Manager – EIA of the AquaWater Fiji mineral water bore and bottling plant. Commissioned by Crystal Clear Mineral Water Fiji Ltd. Duration – 2 months.

2004 – Fiji – Project Manager – EIA for the Aanuka Island Resort, Tokoriki Island. An offshore island resort in the sensitive Mamanuca Group. Commissioned by Reynella Ltd. Duration – 2 months.

2004 – Fiji – Environment Specialist. ADB 4270 Fiji – Capacity Building in Water and Sewerage System. Responsible for environmental legislation requirements, environmental management needs, structure and functions for the new Water & Sewerage Department, and implementation arrangements for new Environmental Management Bill. Asian Development Bank. Duration 4 months.

2004 – Fiji – Project Manager – EIA of the Wailotua Quarry for the upgrade construction of the ADB-funded Korovou-Lodoni Road. Commissioned by COVEC (Fiji) Ltd. Duration 1.5 months.

2003-2004 – Fiji – Project Manager – Environmental Impact Assessment of Nawaci Island Villa Estate, Savusavu. The proposed resort is situated on an offshore island and the development has accentuated social, engineering and marine development issues. Commissioned by Wavi Ltd. owners of the island. Duration – 2.0 months.

2003 - Fiji - Project Manager - Environmental Management Plan for the new Vuda Piggery. An EMP for a new 440 sow unit with over 4000 total stock, when completed, the largest in Fiji. Commissioned by Vuda Piggery Ltd.

2003 – Fiji – Environmental Site Assessment: Proposed Embassy Site, Prince's Rd., Tamavua, Suva with Tonkin & Taylor International, commissioned by the American Embassy, Suva.

2003 - Fiji - Project Manager - EIA of Waivou Creek Gravel Extraction for the upgrade construction of the ADB-funded Korovou-Lodoni Road. The first gravel extraction EIA in Fiji to examine sustainability issues. Commissioned by COVEC (Fiji) Ltd. Duration – 1.0 months.

2003 – Fiji – Project Manager – Fauna, Flora and Archaeological Site Survey of Yaukuve Island, Kadavu, and Community Consultation with Dravuni village, landowners of Yaukuve Island commissioned by Serendipity Hotels, developers of a proposed 5 star resort. Duration 1 week.

2003 - Fiji - Project Manager - Environmental Management Plan, Construction - Chicken-rearing Farm, Viwawa Rd., Navua and Broiler Chicken Farm, Navunivaivai, Nausori for Goodman Fielder International. Duration - 0.50 months

2003 – Fiji – Project Manager – Initial Environmental Examination of the proposed Namena Quarry for the upgrade construction of the ADB-funded Korovou-Lodoni Road. Commissioned by COVEC (Fiji) Ltd. Duration 1.5 months

2003 – Fiji – Environment Specialist - Environmental Impact Assessment of the proposed Lodon Quarry for the upgrade construction of the ADB-funded Korovou-Lodon Road. Commissioned by COVEC (Fiji) Ltd. Duration 1.5 months

2003 – Fiji – Environment Specialist – Environmental Impact Assessment, Nanuya North Resort on Nanuya Lailai Island, Yasawas. EIA of a small, 15 bure resort. Commissioned by West Side Water Sports, Lautoka.

2003 - Fiji - Environment Specialist - Review of environmental implications of proposed intensive (mechanised) sugar cane cultivation by the Tokatoka Sawaieke, Viseisei Village. Commissioned by the South Pacific Project Facility, Sydney. Duration 3 days.

2001- 2002 - Fiji - Project Manager. Environmental Impact Assessment – Taunovo Bay Resort, Deuba. The F\$175 million development is situated on Viti Levu's southern coast at Deuba and has plans for a Rosewood-managed 5 Star hotel, residential development, a public park and ancillary development. The proposal had accentuated social issues in respect of beach usage and public concern over loss of access. The EIA was commissioned by the developers and Environment Consultants Fiji assembled a team of six multidisciplinary specialists from Fiji and New Zealand. Duration - 3 months over 18 months.

2002 - Fiji - Environment Specialist. Environmental Management Plan, Construction - Chicken-breeding facility, Navua for Goodman Fielder International. Duration - 0.25 months

2002 – Fiji – Environment Specialist – Initial Environmental Examination – Raising the Spillway of the Monasavu Dam to improve the efficiency of the Monasavu Hydroelectric Scheme. Meritec Ltd - Fiji Electricity Authority. Duration – 0.5 months.

2002 - Fiji - Project Manager. Environmental Impact Assessment - Chicken-breeding facility, Navua for Goodman Fielder International. A straight-forward EIA made sensitive because of the close proximity of the Navua Municipal Water Borefield. Environment Consultants Fiji has assembled a team of three specialists to undertake the EIA. Duration - 1.5 months

2002 - Fiji - Project Manager. Social Impact Assessment - Naidiri Quarry, Nadroga. Environment Consultants Fiji is undertaking a stand alone SIA for Basic Industries as a component of a full EIA. The quarry is in a sensitive location, close to the cane railway line and a proposed tourist resort. Duration - 0.5 months.

2002 - Fiji - Environment Specialist - Environmental Management Strategy for the Taunovo Bay Resort. Commission consisted of operationalising a Sustainable Design Programme which the resort owners had drawn up for their resort. Duration 0.25 months.

2002 – Fiji – Environment Specialist – Environmental Management Plan for the Nasau quarry and Naiyali crusher for the Kings & Lodon Road Upgrade Project. COVEC Ltd. Duration – 0.5 months.

2002 – Fiji – Environment Specialist – Environmental Impact Assessment of the Bounty Road Reclamation, Walu Bay, Suva. A 1.5 ha area of tidal flats and mangrove adjacent to the Walu Bay Industrial site. Duration – 1 month.

2001 – Fiji – Project Coordinator – Lami Landfill Study. Commissioned by the Native Land Trust Board to coordinate a study on the environmental impact of Suva's 50 year old landfill with a view to taking legal action. Duration – 1 month.

2001- Fiji – Environmental Monitoring Plans for the new Naboro Landfill and the decommissioned Lami, Nausori and Navua Dumps. European Commission, Hydroplan International. Duration – 1 month over 2 years.

2001 – Fiji – Environment Specialist – Preliminary environmental studies for the Studio City Zone, an ambitious IT project to establish an Audio-visual Production Centre with concurrent residential, tourism and industrial facilities on Viti Levu's northern coast at Yaqara. Studies include project scoping, mangrove and foreshore assessment and terrestrial biodiversity assessment. Duration – 0.75 months.

2001- Fiji – Environmental Management Plan for the ADB-financed Fiji Road Upgrading Project 3 – Kings and Lodon roads. COVEC. Duration 0.5 months.

2001 – Fiji - Initial Environmental Examination of the Natadola Access Roads Project, Viti Levu. Roughton International. Duration – 0.25 months.

2000 – Fiji - Environment Specialist - Hydrogeological study and catchment management plan for the Yaqara Catchment, Viti Levu, including recommendations for environmental permitting of natural water bottling plant. Commissioned by Water Studies Pty. Ltd. for Government of Fiji. Duration – 0.25 months.

2000 – Fiji – Environment Specialist – Environmental Management Reviews. Retained by the Native Land Trust Board to undertake environmental management reviews of a variety of operations on leased land to report breaches of compliance with lease conditions. Operations include tourist resorts and the Emperor Gold Mine at Vatukoula. Duration – variable.

2000 – Fiji – Environment Specialist – Environmental Impact Assessment – Sanna Quarry, Vanua Levu. Preparation of an EIA for a temporary quarry to provide aggregate for highway upgrading. Standard Concrete Ltd. Duration – 1 month.

1999 – Fiji – Environment Specialist – ADB Suva-Nausori Water Supply & Sewerage Project. A review of environmental impacts of current operations including system operating data. Identification of relevant issues and impact assessments of a proposed project and sub-options. Preparation of an Initial Environmental Examination. Duration – 1 month.

1999 – Fiji – Environment Specialist – Initial Environmental Examination– ADB Third Road Upgrading Project-Fiji. Commissioned by Project Design Consultants, Roughton International, to evaluate environmental impacts associated with the road upgrading. Principle issues include social needs of villagers; river flooding and scouring; sourcing of aggregate – rivers and quarries; vulnerable ecology - mangroves and coastal protection. Duration – 5 weeks.

1998-9 – Fiji – Project Manager & EIA Specialist – EIA Natadola Marine Resort. The US\$200 million development is situated on Viti Levu’s premier international class beach and has plans for four hotels, two marinas and ancilliary development. The proposal has accentuated social issues in respect of the landowners and public concern over loss of access. The EIA was commissioned by the Government of Fiji and Environment Consultants Fiji assembled a team of ten multidisplinary specialists from Fiji and New Zealand. Duration – 3 months.

1998-9 - Fiji - Project Manager & EIA Specialist – Environmental Impact Assessment – Fiji Hilton Malomalo Resort. A 300 room 5 star hotel situated on Viti Levu’s coral coast being developed by 5 Star Holdings. The proposal represents Fiji’s first high rise hotel in a rural setting, additional EIA issues focused on the marine environment, construction impacts and operational management. Duration – 2 months.

1998 – Fiji – Environment Specialist – Environmental Impact Assessment for the Raintree Lodge at Colo-i-Suva, Rewa, for Spruce Ltd. The proposed \$1million eco-tourist lodge is sited on the bank of an artificial lake used as minor water source for the Suva Municipal Supply – the EIA issues focused on maintenance of water quality, construction impacts, and operational management practices. Duration – 3 weeks.

1998 – Fiji – Environment Specialist – Baseline Survey for the Nukudamu Copper-Zinc Mine at Udu, Vanua Levu. Undertook a reconnaissance visit to the mine site which was operational in the late 1960s and provided a report to the current license holders, on the prevailing environmental issues. Designed a Baseline Survey as a component of a full Environmental Impact Assessment. Duration - 1 week.

1998 – Fiji – Project Manager – Coastal Processes assessments with engineering and design recommendations for the proposed Korotogo Bypass and the Grand Pacific Hotel development, Suva. Duration – 1 week.

1998 – Fiji – Project Manager, Environment Specialist – Environmental Management Plan for the refurbishment of the Reef Hotel. The refurbishment of the 65 room to the 200 room Outrigger Reef Resort will see the demolition of most of the existing hotel complex and

replacement by a combination of chalets and room blocks. The work includes the preparation of a Waste Management Strategy, an Environmental Management Plan (Construction), and an Environmental Impact Study for the International Finance Corporation (World Bank), one of the project's financiers. Duration - 3 months

1997 – South Pacific – Sole contractor - Environmental Management Guidelines for Small Tourist Hotels and Resorts. Commissioned by the Tourism Council of the South Pacific to prepare a review of appropriate environmental management guidelines for small South Pacific resorts and hotels and to develop this into a Conceptual Video Script for subsequent filming. Duration – 1.5 months.

1997 - Fiji – Project Manager & EIA Specialist – EIA of the Momi Bay Resort, Nadroga, Viti Levu, commissioned by the developer, Galleon Cove Ltd. A \$50 million tourist resort with 5 Star Hotel, over-water accomodation, 18 hole golf course and conference facilities. The project had accentuated marine and social issues and a requirement of the developer for an ecologically sensitive development and mode of operation. Duration - 3 months.

1996 - Malaysia - Environment Specialist - Environmental Screening Study for the Northport - Westport Highway and Bridge. The study involved identifying the environmental issues relevant to a proposed bridge over the Kelang River mouth and its link roads, one of which was through sensitive mangrove and estuarine habitats. The study was commissioned by HSS Integrated Sdn. Bhd. Duration 1.0 man months.

1996 - Malaysia - Environment Specialist - Environmental Screening Study of the Penang 3rd Crossing. The study involved identifying the environmental issues and rating the potential effects of 6 options comprising 3 alignments and a combination of bridges, immersed tube tunnel and reclaimed islands with and without LRT for a crossing of the Penang Channel. The study was commissioned by Mekar Idaman Sdn. Bhd. Duration 0.5 months.

1996 - Malaysia (Sarawak) - Environment Specialist - Preparation of an Environmental Management Plan for the contractor of the Bakun Access Road Package 5 From Batang Kemena to Tubau, Pembinaan Limbongan Setia Sdn. Bhd. Duration 0.75 months.

1996 - Cambodia - Environment Specialist - a broad review of the environmental implications of a UN rehabilitation project in Cambodia's northernmost province, Ratanakiri. The project focus was on roads and secondarily on irrigation projects. During the assessment, on the job training was provided for two junior staff of the Ministry of Environment. Duration 0.5 months.

1996 - Fiji - Environment Specialist - Feasibility Study of the Vanua Levu pine plantation resource for Fiji Pine Ltd. The environment component of the study focused on plantation site selection, review of environmental management systems and an assessment of the likely impacts of industrial harvesting and processing. Member of a seven person team of international specialists assembled by International Development Ireland Ltd. with European Union funding. Duration - 1 month.

1996 - Malaysia - Project Co-ordinator - Environmental Impact Assessment of Pulau Tioman Power Station plant up. The EIA was of a plant up of an existing 3 MW to an 8 MW distillate and medium fuel oil fired open-cycle generators. Additional works included the construction of a 175m jetty within a Marine Park. Significant issues were ambient air quality which required air dispersion modelling for NOx and SOx levels and determination of suitable stack heights; noise; risk assessment and construction impacts to sensitive marine habitats. Duration 5 man-months.

1996 - Malaysia - Project Manager - Preliminary Environmental Impact Assessment of proposed highway construction through the North Selangor Peat Swamp Forest, Selangor, for Konsortium Leburayah Pesisiran Barat Sdn. Bhd. The North Selangor Peat Swamp Forest is a wetland of international significance and the preliminary EIA focused on hydrological, biodiversity and forestry issues, which would be impacted by the construction of the proposed four-lane highway. Duration 3 man-months.

1996 - Malaysia - Project Co-ordinator - Emergency Response Plan (ERP), Sultan Iskandar Power Station, Johore for Tenaga Nasional Berhad. The ERP was undertaken in close

association with Power Station staff and included the services of three specialists covering emergency response, environmental and health and safety disciplines. Duration 4 man-months.

1995/6 - Malaysia - Project Manager - Site screening of five sites for MNI Newsprint Sdn. Bhd.'s. proposed Newsprint Mill with an annual production of 300,000 tonnes. The sites, in three different States, were screened for a wide variety of environmental issues with the major foci on water supply for process water and associated effluent discharge. A preliminary transport logistics analysis was a component of the study. Duration 3 man-months.

1996 - Malaysia - Project Co-ordinator - Environmental Impact Assessment of Glugor Combined Cycle Power plant up. The EIA was of a plant up of an existing 138 MW Open Cycle Power Station to 360 MW Combined Cycle. The additional works included reclamation of adjacent sea frontage and construction of additional plant. Significant issues were ambient air quality which required air dispersion modelling for NO_x and SO_x, and determination of suitable stack heights; noise, thermal water discharge and social issues. Duration 5 man-months.

1995/6 - Malaysia - Project Manager & EIA Specialist - Environmental Impact Scoping Study of the 250 km West Coast Expressway for a private consortium. The works undertaken over a ten month period consisted of screening successive route options and advising the client of the environmental concerns and management requirements; liaising with regulatory authorities; making presentations and reporting.

1995 - Malaysia - Project Co-ordinator - Environmental Audit of the Sultan Salahuddin Abdul Aziz Power Station, Malaysia's largest power plant operated by Tenaga Nasional Berhad. The audit comprised three specialists, a lead auditor, an air quality specialist and an emergency response specialist and was the first environmental audit of a power station in Malaysia. The audit was undertaken in an ISO 14000 framework and was also reported using AuditPower auditing software. Duration 1 man-months.

1995 - Malaysia - Project Manager & EIA Specialist - Environmental Impact Assessment of a Strong Linerboard Manufacturing Plant for Amcor Malaysia Sdn. Bhd., in Negeri Sembilan. The US\$150 m. plant is to occupy a 50 ha site and is designed to produce 150,000 tonnes/annum of linerboard from recycled old corrugated cardboard. The plant is to use a proprietary Zero Liquid Discharge effluent technology and specific and significant issues included ambient air quality (addressed with dispersion modelling for NO_x and SO_x), solid waste disposal, traffic generation and noise. Duration 5 man-months.

1995 - Malaysia - Project Manager & EIA Specialist - Environmental Impact Assessment for a 2 x 30 MW Co-generation Plant for Tenaga Nasional Engineering Consultancy Sdn. Bhd., in Negeri Sembilan. The plant designed to provide electricity and steam to be provided to an Industrial Estate. Specific and significant issues included stack emissions (employed dispersion modelling), noise and liquid wastes. Duration 2 man-months.

1995 - Malaysia - Project Manager & EIA Specialist - Environmental Impact Assessment for a granite quarry and crusher for MTD Construction Sdn. Bhd., in Perak. The quarry with a design capacity of 20,000 tonnes per year of aggregate for road construction and road upgrading was located in sensitive rural setting. Specific and significant issues included air blast, operational noise (employed acoustical modelling), vibrations, traffic, environmental management and social concerns. Duration 6 man-months.

1995 - Malaysia - Project Manager - Environmental Scoping for the proposed route of the 40 km Dedicated Highway between Kuala Lumpur and Sepang for HSS Integrated Sdn. Bhd. The works undertaken consisted of scoping the chosen route option and advising the client of the environmental concerns and management requirements. Duration 0.5 months.

1995 - Malaysia - Project Co-ordinator - Environmental Impact Assessment of the District Cooling Water 30 MW Co-generation Plant, Bangsar for Tenaga Nasional Engineering Consultancy Sdn. Bhd. The plant will supply cooling water for high rise developments in the vicinity and electricity. Specific and significant issues included stack emissions (undertook ambient air quality dispersion modelling for NO_x and SO_x), noise, social concerns and liquid wastes. Duration 7 man-months.

1995 - Malaysia - Project Co-ordinator - Stack dispersion modelling for a proposed plant up of a thermal power station in Penang, for Tenaga Nasional Research and Development, Sdn. Bhd. The assignment was undertaken to model ambient air quality for NO_x and SO_x and in doing so determine a suitable stack height. Duration 0.25 months.

1995 - Malaysia - Project Manager - Environmental Quality Management Programme for MTD Construction Sdn. Bhd. The Management Programme was designed as a component of MTD's tender for the laying of a 350 km natural gas pipeline. Duration 0.25 months.

1994/5 - Fiji - Project Manager - Environmental Audit of Shell Fiji's Vuda Point Oil Terminal. Environmental review of the terminal operation and its impacts on the adjacent reefs and the relationships between the terminal operation and the landowning community. Phase 1: Community perceptions - May 1994; Phase 2: Reef and foreshore marine survey - December 1994; Phase 3: Reef sediment sampling survey - February 1995; Phase 4: Terminal operation audit - May 1995; Phase 5 - Summary Report produced in an attractive and informative format designed for government officials and the general public. Duration 3 man months.

1994 - Malaysia - EIA specialist with responsibility for ecological, resource conservation and biodiversity issues, in an Asian Development Bank funded Technical Assistance to the Government of Malaysia, with consultants Tonkin & Taylor International Ltd. The objective of the consultancy was the preparation of detailed guidelines for EIAs of Key Sector projects including:

- water supply including groundwater development;
- dams and reservoirs;
- irrigation including drainage of wetlands;
- fisheries, including the construction of harbours and coastal aquaculture; and,
- power generation and transmission.

Duration – 2 months.

1994 - Fiji - EIA of a foreshore reclamation project for J.K.S. Holdings Ltd. at Savusavu, Vanua Levu. The three acre reclamation for a shipping facility to service the main wharf is in a sensitive location in one of the most attractive harbours in Fiji. The EIA considers site options, highly developed community issues, thermal activity, visual aesthetics, the marine environment and coastal processes. Studies commissioned for the EIA included a Site Masterplan; Reconnaissance Marine Survey, Coastal Processes Study and a Fijian Community Social Survey. Duration 3 man-months

1994 - Fiji - EIA of a Tax Free Zone Development Project for the Ministry of Commerce & Industry, Government of Fiji. A 40 acre logged over plantation site on the outskirts of Suva, is being developed with assistance from the European Community. The issues involve baseline water quality monitoring, design specifications, industry type, neighbouring communities, wetlands and a historic site. Duration - 2 months

1994 - Tonga - Environment Specialist in a Technical Assistance Team assisting the Government of the Kingdom of Tonga formulate an Agricultural Development Project. The project comprised three components, an agricultural development strategy for the Niuas and 'Eau, provision on a country wide basis of post harvesting facilities and training, and export marketing facilities for agricultural products. The study focused on identifying environmental issues which needed to be integrated into project formulation. Important amongst these were institutional responsibilities and capacities for environmental management, roading impacts, pesticide usage, drinking water contamination, international and intranational quarantine and biodiversity issues on Niuafu'ou. Duration - One month.

1994 - Cook Islands - Environment Specialist in a Technical Assistance Team assisting the Cook Islands Government formulate an Agribusiness and Agro-Industry Development Project. The project sought to facilitate private sector investment and development in agribusiness and agro-industry. The environmental study focused on identifying issues which required incorporation into project formulation. A review of country wide environmental issues and environmental legislation was undertaken. Environmental management guidelines were drawn up for four case studies which represented likely development options. Duration - one month

1993 - Fiji - Tuvatu Gold Mining Project. Project Manager/Environment Specialist for an Environmental Impact Assessment of a 2,000 tonne/month oxidised ore gold mining project. Commissioned by Geopacific. The EIA focused on appropriate design and practice for the small open cast mine which is located in a visually conspicuous and topographically difficult terrain. Of specific significance was the design of an environmentally sound tailings disposal method and landowner community consultation. Duration - 3 months

1993 - Fiji - Beach water quality assessment. A review for the Sheraton Fiji Resort, Denarau of their beach water quality monitoring programme, an assessment of the issues involved and recommendations for future options.

1993 - Papua New Guinea - Team Leader, Environment Specialist. Project identification and design assignment for IUCN - the World Conservation Union, Switzerland. Undertook a preliminary regional environmental assessment of the Fly River Catchment in which is located the OK Tedi Copper Mine and the Porgera Gold Mine and preparation of a sustainable development project proposal for international donors. One and a half month duration.

1993 - Kiribati - Environment Specialist in a An Asian Development Bank Technical Assistance Team assisting the Government of Kiribati prepare an Integrated Development Plan for the Northern Line Islands (NLI). The plan seeks to identify appropriate development options for the small populations of the remote NLI, while the environment study focused on identifying issues which required incorporation into project formulation. Significant issues included the rich biodiversity heritage of Kiribati (some of the largest seabird nesting colonies in tropical waters); sustainable resource exploitation (bone fish as a tourist attraction and commercial harvesting of a variety of marine products); water quantity and quality; waste management; institutional capacity for environmental and wildlife management; quarantine issues and feral mammal control. 7 week assignment, January to March 1993.

1992 - Fiji - Project Manager/Environment Specialist in a three man team assessing the environmental impact of the proposed Korotogo Bypass on Viti Levu's coral coast, a popular tourist attraction. The EIA study was commissioned by the Ministry of Infrastructure and Public Utilities, Government of Fiji and focused on route options, social issues (noise disturbance, traffic reduction, rights of way), tourism values and wetland (mangrove) conservation. The EIA recommended a new route for the proposed Bypass. Duration 2.5 months

1990-92 - Fiji - Team Leader, IUCN Consultants, providing technical assistance to the Ministry of Housing and Urban Development, Government of Fiji's National Environmental Management Planning Project, for the Asian Development Bank. The project consisted of an eight man multi-disciplinary team of international consultants together with 12 national resource personnel, reporting in the fields of environmental legislation, policy, education and institutions; pollution management and monitoring; public awareness and information and identification of ecologically sensitive areas. The project's first major document was the National State of the Environment Report' produced in an attractive format for widespread public circulation. The final document prepared was a National Environment Strategy for Fiji which was subsequently endorsed by the Fiji Government.

1991 - Fiji - Environment Specialist in a three person team undertaking an Assessment of Environmental Impact of proposed Mine Tailings disposal. The study focused on the constraints (physico-chemical and location options) of tailings disposal from a Tailings Reprocessing Project and was incorporated in the Feasibility Study of the Project. Specific issues investigated were those associated with the chemical nature of the tailings involved and how it may change over time; the feasibility of disposal in a wetland (mangrove) habitat and the rehabilitative requirements of the tailings for agricultural or other appropriate land use. Commissioned by Ranger Pacific Ltd., Vatukoula, Fiji. Duration - 2 months.

1991 - Cook Islands - Environment Specialist undertaking a Preliminary EIA of a financially troubled and controversial four-star hotel development being built on a 'fast-track' and 'turn-key' programme. The study examined inadequate design specifications and provided recommendations for certain issues which required specific environmental management and

mitigation attention. Commissioned by the South Pacific Regional Environmental Programme for the Cook Islands Government. Duration - 1 month.

1989 - Fiji - Environmental Impact Assessment for the Vulani Resort Development, a proposed \$30 million, hotel, marina and golf course development. The site in a vulnerable deltaic location involved the reclamation of mangroves. The EIA was completed but not submitted as the development was abandoned by the developer, Cobweb International. Prepared in association with Barrett Fuller Partner, Wellington, New Zealand. Duration - 2 months.

1989 - Fiji - Project Manager/Environment Specialist for an Environmental Study commissioned by Paget Mining (Fiji) Ltd. A preliminary environmental, cultural and social impact assessment of a proposed dolomite mining operation on a forested outcrop in the Sigatoka Valley. The study focused on the values of the site's unique landscape qualities, its numerous historic sites and a community survey of the landowning and neighbouring villages. Duration - 3 weeks.

1989 - Fiji - Preparation of an Environmental Management Plan for the exclusive Vatulele Resort. The Plan, a requirement of the Department of the Environment, addressed specific management issues including the identification of terrestrial and marine sites of conservation significance; minimal site disturbance and appropriate landscaping; waste management including a wetland biological wastewater treatment system; visitor management to a site of historic and cultural significance; a survey of an underwater cave system, and acceptable diving and fishing practices. Duration - 3 weeks.

1989 - Fiji - Ecologist and Impact Assessment Specialist preparing an environmental effects and preliminary feasibility report on a proposal relating to the disposal of mine tailings in a coastal environment, for the Emperor Gold Mine, Vatukoula. Undertaken in association with Barrett Fuller Ptnrs., Wellington. Duration - 2 months.

1989 - Fiji - Environmental Impact Assessment. The Savusavu Marina, a F\$10 million marina, boat repair facility, hotel and canal-apartment proposal for Vanua Levu's second largest town by Kilowen (Fiji) Ltd. Duration - 1 month.

1989 - Fiji - Preparation of an Environmental Impact Assessment of the proposed Marina at Vuda Point, a \$1 million marina development in abandoned coastal borrow pits. Duration - 1 month.

1988 - Indonesia - As Environment Specialist for the Australian International Development Assistance Bureau, reviewed the environmental issues associated with the Bah Bolon Project, a river training, irrigation and agricultural development project. The study focused on the impact of catchment degradation on the project; linkages between freshwater swamps planned for drainage and rivers; the project's downstream effects in the rivers and in the wetlands of the coastal fringe (mangroves and freshwater swamps) and an appraisal of environmental monitoring at the Inalum aluminium smelter on the project's boundary. Duration - 1.5 months.

1988 - Fiji - FAO's Fiji Forestry Sector Development Review. As Forest Ecologist/Environment Specialist prepared a report outlining current environmental and biodiversity issues affecting the sector; assessing the environmental impact of the sector development options and drawing up prescriptions and procedures for environmental protection and enhancement. Duration - one month.

1988-89 - Indonesia - Environment specialist in a World Bank Technical Assistance team (ANZDEC Consultants) formulating the 1989-1994, Five Year Plan for the Ministry of Transmigration, Government of Indonesia. Responsible for assessing the likely impacts of transmigration into new sites, minimising environmental degradation on existing settlements and reviewing current studies, to develop recommendations for inclusion into policy and the Five Year Programme. Duration - 3 months

1987 - Fiji - Wildlife Biologist/Forest Ecologist in a three person FAO consulting team which conducted an Environmental Impact Study of a proposed logging concession in the vulnerable Navua River catchment. Duration - 1.5 months.

1983 - Fiji - As Wildlife Biologist prepared a report for BP Southwest Pacific on the impact of a chip-logging proposal of Viti Levu's exotic pine plantations with specific reference to indigenous species and rare and endangered forms. Duration - 2 weeks

Forestry

2013 - Fiji – Forestry Specialist – Review of the R-PP (Redd +) for Fiji document. Forest Carbon Partnership Facility (World Bank).

2013 - Fiji – Mangrove Management – Preparation of the Mangrove Management Plan for Fiji – MESCAL Project, IUCN. 4 month input over 12 months.

2013 – Fiji – Forestry Certification Auditor – Full Forest Stewardship Council Certification Audit of Fiji Pine Ltd for SCS Global Services. Duration 14 day input.

2012 – Papua New Guinea - Forestry Specialist. Revision of the PNG Code of Logging Practice – FAO GCP/PNG/003/AUL. Member of a 4 person review team. 24 days over 3 months.

2012 – Fiji – Forestry Specialist - Preparation of “*Permanent Forests Estates for Fiji – A Discussion Document*”. NatureFiji-MareqetiViti Report for Dept. of Forests, Suva

2009 – Fiji – Mangrove Specialist – Survey of the Rewa delta mangroves and associated areas to be impacted by proposed dredging of the Rewa River. Commissioned by the University of the South Pacific, Institute of Applied Science. Duration – 0.5 months.

2006-8 – Fiji - Environment/Forestry Specialist – Member of the Fiji Certification Standards Working Group. Responsible for the drawing up and endorsement of Fijian Standards for Certification by the Forest Stewardship Council. On-going.

2007 – Fiji – Environment/Forestry Specialist – Feasibility of the establishment of energy wood crops for electricity generation plants of Fiji Sugar Corporation and other Independent Power Producers. Two man team commissioned by the European Union. Duration 1.5 months.

2007 – Fiji - Environment/Forestry Specialist – preparation of environmental layers for the development of the Natural Forest Inventory. Commissioned by the Department of Forests. Duration 0.5 months.

2007 – Fiji – Environment Specialist – Fiji Forest Policy formulation – member of the forestry-environment expert review group.

2005 – Fiji – Environment Specialist – Inspection of Raralevu Logging Concession with a report on the logging methods and areas of illegal logging. Commissioned by the Forestry Department. Duration: 0.25 months

2005 – Fiji – Team Leader. Fiji Hardwoods Ltd - Fijian-owned Mahogany Plantations - Forest Certification Assessment for SmartWood (Rainforest Alliance). Duration: 0.5 months

2003 - Laos - Team Leader. Savannakhet and Khammouane Provincial Forestry Village Units - Forest Certification Assessment for SmartWood. Duration: 0.5 months

2003 - Fiji - Inspection and Assessment of Illegal logging in the Drawa Forest Block, Wailevu, Cakaudrove. Commissioned by GTZ Forestry Programme. Duration - 0.25 months.

2003 - Fiji - Team Leader. Fiji Hardwoods Ltd - Fijian-owned Mahogany Plantations - Forest Certification Scoping for SmartWood. Duration: 0.25 months

2003 - Niue - Biodiversity Specialist - Review of the Draft Code of Logging Practice for Niue, with specific emphasis on the provisions for biodiversity conservation. Commissioned by GTZ-SPC Regional Forestry Programme. Duration - 1 day.

2003 - Samoa - Trainer - Presenter at a three day workshop on Forest Certification. Course commissioned by GTZ-SPC Regional Forestry Programme. Duration - 0.25 months.

2002 - Laos - Team Leader. Savannakhet and Khammouane Provincial Forestry Village Units - Forest Certification Scoping for SmartWood. Duration: 0.25 months

2002 - Pacific Regional - Trainer - Development of Training Capacity in Forest Certification, a joint EC – BMZ – DIFD project for ACP countries. Duration - 0.25 months.

2001 – Fiji – Trainer – Regional Training Course on FSC – Forest Certification for government and industry personnel. Held in Labasa, Vanua Levu with visits to the concession of Fiji Forest Industries. Course commissioned by GTZ-SPC Regional Forestry Programme and conducted by Smartwood. Duration – 0.2 months.

2001 – Papua New Guinea – Team Leader for Forest Management Certification Scoping Assessment of PNG-Canadian Hardwoods Ltd. Central Province, Papua New Guinea. SmartWood Programme Rainforest Alliance. Duration – 0.5 months.

2001 – Indonesia – Team Leader of a five man team for a Forest Management Certification Assessment of PT Austral Byna's 300,000 ha concession on the Barito River, Central Kalimantan. SmartWood Programme Rainforest Alliance. Duration – 1.0 months.

1996 - Fiji - Environment Specialist - Feasibility Study of the Vanua Levu pine plantation resource for Fiji Pine Ltd. The environment component of the study focused on plantation site selection, review of environmental management systems and an assessment of the likely impacts of industrial harvesting and processing. Member of a seven person team of international specialists assembled by International Development Ireland Ltd. with European Union funding. Duration - 1 month.

1995 - Indonesia - Sustainable Forest Management. Ecologist and Impact Assessment specialist in a five man international team commissioned by CIFOR (Centre for International Forestry Research, Bogor) to undertake the second test of five sets of criteria and indicators for the sustainable management of forests. The sets included those of the Rainforest Alliance (Smartwood); the Soil Association (Woodmark); the Lembaga Ecolabel Indonesia; the Initiative Tropenwald and the Dutch 'DBB' Working Group. The test consisted of an appraisal of the sets through team discussion, whilst being located within an active timber concession where specific issues could be tested in the forest. The principle objective being to test the practicality of the sets in the field and to identify a minimum set. March - April 1995. 1.5 months.

1994 - Fiji - Forest ecologist in a multidisciplinary team preparing a detailed proposal for multiple use of Fiji's last remaining large undisturbed forest area, the Sovi Basin. The proposal was commissioned by the Native Land Trust Board and the team assembled by the Maruia Society with funding from New Zealand Ministry of External Affairs. Duration 0.25 months.

1993/4 - Fiji - Environmental Planner/Forest Ecologist responsible for Forest Function identification and mapping. The assignment involved the development of an appropriate forest function classification using FORGIS, the GIS (Arc-DBase, ERDAS) of the National Natural Forest Inventory. During the preparation of the classification two workshops were organised and presented to the Department of Forestry and interested parties. Phase 1: 4 weeks, April 1993; Phase 2: 4 weeks November 1993.

1992 - Fiji - Forest Ecologist and Environment Specialist - resource person for a team from the Ministry of External Relations and Trade, reviewing financial and technical assistance by the New Zealand Government to Fiji's hardwood plantation programme. Duration - 0.5 months

1988 - Fiji - FAO's Fiji Forestry Sector Development Review. As Forest Ecologist/Environment Specialist prepared a report outlining current environmental and biodiversity issues affecting the sector; assessing the environmental impact of the sector development options and drawing up prescriptions and procedures for environmental protection and enhancement. Duration - one month.

1988 - Fiji - Mangrove Biologist. Preparation of 'State of the Art report on Mangroves in Fiji' for UNDP/UNESCO Regional Mangrove Project, New Delhi, India, (RAS/79/002). The report collated all published and available information on Fijian Mangroves and included a vegetation and zonation description; an estimate of areal extent; an account of tenural status and administrative framework; the current management issues, prospects and knowledge deficiencies. Duration - 1 week.

1987 - Fiji - Wildlife Biologist/Forest Ecologist in a three person FAO consulting team which conducted an Environmental Impact Study of a proposed logging concession in the vulnerable Navua River catchment. Duration - 1.5 months.

1985-86 - Fiji - As Mangrove Ecologist and advisor to the Ministry of Lands undertook a study on the issues confronting mangrove management in Fiji and then developed a management philosophy suited to the cultural and tenural conditions of the mangrove resource. Phase 1 of the project utilised the management concept in the drawing up of management plans for three major mangrove areas comprising about two thirds of the national resource. In Phase 2, management plans for two additional and critical localities were drawn up. Duration - 9 months.

1983 - Fiji - As Wildlife Biologist prepared a report for BP Southwest Pacific on the impact of a chip-logging proposal of Viti Levu's exotic pine plantations with specific reference to indigenous species and rare and endangered forms. Duration - 2 weeks

Protected Area Management, Resource Surveys and Biodiversity

2017 - Pacific Regional – Biodiversity Offsets – Secretariat of the South Pacific Biodiversity Offsets Project. Team member for The Biodiversity Consultancy as the selected tenderer for the contract which reviews the current use and potential for biodiversity offsets as mitigation for environmental impacts of projects in the small island countries of the south Pacific. One month input.

2015 – Fiji – Protected Areas Specialist. Feasibility Study for the proposed Wainikavika National Park, Navua. An initial study involving consultation with all stakeholders on the feasibility of extending the Garrick Memorial Forest Reserve to include the Calia Reservoir and its immediate catchment, as well as native land in upper catchment. With Fiji National University, National Trust for Fiji and NatureFiji-MareqetiViti. (2020 - On-going committee member with with process managed by Ministry of Forests).

2012 – Fiji – Protected Areas Specialist - Preparation of “*Taveuni National Park: The Next Steps – A Discussion Document*”. NatureFiji-MareqetiViti Report for Dept. of Forests, Suva

2009 – Fiji – Mangrove Specialist – Survey of the Rewa delta mangroves and associated areas to be impacted by proposed dredging of the Rewa River. Commissioned by the University of the South Pacific, Institute of Applied Science. Duration – 0.5 months.

2009 – Fiji – Ornithologist – Survey of avifauna in areas potentially impacted by the Namosi Copper Mine – Naikorokoro, Vunisoco. Duration – 0.5 months.

2007 – Fiji – Project Manager – Marine Reserve Establishment for Turtle Island Resort, Yasawas, Ba. Preparation of a report and extensive community consultation, marine survey and coastal processes assessment for the owner of Turtle Island Resort. Duration – 3 man months.

2007 – Fiji – Ecologist – Fauna and flora survey of Wailagilala Atoll as a component of an Environmental Impact Assessment for a proposed resort. Duration – 0.25 months

2007 – Fiji – Ornithologist – Preparation of a report identifying the Important Bird Areas for the Kingdom of Tonga, for BirdLife International. Duration – 0.5 months

2007 – Fiji – Project Manager – Environmental Assessment of foreshore lease application for a permanent Marine Reserve by Turtle Island Lodge on Nanuyalevu Island, Yasawa island group.

2007– Fiji – Management Plan for the Sovi Basin Protected Area. The Sovi Basin is the last wilderness area on Viti Levu, comprising some 20,000 hectares of untouched, lowland rainforest. ECF's principal, Dick Watling has been commissioned by the National Trust of Fiji and Conservation International to lead the team drafting the Management Plan for this unique area. Duration – 2 months.

September 2006 – Fiji – Ecological Monitoring of Vatuiria Island. Periodic ecological monitoring of Vatuiria Island following the removal of rats from the island. An important component of this is

training for young professionals and the landowning community. Commissioned by BirdLife International.

May 2006 – Fiji – Preparation of Management Plans for the Ravilevu and Tomaniivi Nature Reserves, two of Fiji's oldest protected areas for the Department of Forests. Commissioned by BirdLife International. Duration – 2 months.

2006 – Fiji – Preparation of a case study on the shark fishing industry in Fiji, a component of a large study being undertaken for the Western Pacific Regional Fisheries Management Council. Duration – 1 month.

2003 - Tropical Pacific - Review-discussion paper for the Secretariat of the Pacific Community on incidental mortality of seabirds as a result of fisheries operations in the waters of SPC member countries. Duration - 0.3 months

2003 - Tonga - Ornithologist - Survey of Late and Fonualei Islands, Vava'u, Tonga to investigate the success of the attempted translocation of the Critically Endangered Polynesian Megapode *Megapodius pritchardii* to these islands from Niuafu'ou in 1992-3. Assisted by a grant from the Van Tienhoven Foundation for International Nature Protection. Duration 0.5 months

2002 – Fiji – Ecologist - Preliminary Baseline Survey of the Terrestrial Vertebrate fauna of the Waivaka Catchment, Namosi, Viti Levu, a potential open-cast porphyric copper mine. Commissioned by the Nittetsu Mining Consultants Co. Ltd.

2002 International Environment Specialist – Desk Review – Assessing Linkages between Biodiversity Conservation and Poverty Alleviation. A desk review of 14 World Bank GEF projects. World Bank. World Bank. Duration – 0.75 months.

2001-3 -Tonga – Wildlife Ecologist and Protected Area Management Specialist – Biological Coordinator of Baseline Surveys and Rat Removal of Maninita and Taula Islands, Vava'u in preparation for wildlife sanctuary status and ecotourism development. Commissioned by Tourism Resource Consultants, Wellington, on behalf of New Zealand Overseas Development Administration. Duration – 3.0 months.

2001-2 – Lao PDR, Vietnam, Cambodia, Thailand – Review of Lower Mekong River Protected Area and their role in Economic Development. Protected Area Management Specialist and review coordinator for Lao PDR. An eight man core team of international specialists combining with national teams as determined by governments. Principal outputs include a Lessons Learned Paper, a National Review for each country and a Regional Review, leading to a regional contribution to the World Parks Congress in Durban, South Africa, Sept. 2002. The review is a joint ICEM, AusAid, Swiss DC, UNDP funded project with Technical Assistance being provided by IUCN, WWF and Birdlife International. Duration 2.5 months over 18 months.

1999 – Kiribati – Wildlife Ecologist and Protected Area Management Specialist – South Pacific Regional Environmental Programme. A review of the functioning of the Wildlife Conservation Unit on Kiritimati Island, Kiribati, survey of the seabird breeding colonies and design of a conservation management and capacity-raising project . Kiritimati is the home of eighteen species of breeding seabird and the colonies of four species are the largest in the world. The island is considered to be one, if not the most significant seabird breeding islands in the tropics.. Duration – 5 weeks.

1998 – Tuvalu – Wildlife Ecologist – Bird survey of the Funafuti Marine Conservation Area; training in identification and monitoring for staff; draw up monitoring and management prescriptions. Commissioned by SPREP for the South Pacific Biodiversity Conservation Programme.

1998 - Lao PDR - Project Coordinator - Social Action Plan for the Nakai Nam Theun Conservation Area. Responsible for coordinating, contributing to and the final production of a Social Action Plan by a four man international team. The Action Plan focuses on improved livelihoods and social services for the 4,500 inhabitants of the Nakai Nam Theun Conservation Area and is designed to conform with the World Bank's OD 4.20 – Indigenous Peoples. IUCN for the World Bank. Duration 1 month.

1998 – Lao PDR - Biodiversity-Protected Area Management Specialist – Nakai Nam Theun Conservation Area Phase 2 Activities - 1998. Review and design mission for the World Bank. Duration 0.75 months.

1997 – Fiji – Ecologist & Project Coordinator – Fiji's Biodiversity Strategy and Action Plan. Coordinating consultant with responsibility for advising the Project Steering Committee on the scope, contents and formulation procedures of the BSAP; the management of five Technical Group requirements; report writing to draft stage and advise on comments, consultation and finalisation of the BSAP. Contributed Technical Group 2 report 'Conservation Status of Fiji's Terrestrial Vertebrates'. Government of Fiji -UNDP. Duration 4 months over 18 months.

1997 - Fiji – Ecologist – Baseline survey of the terrestrial vertebrates of the Tuvatu Gold Mine Study Area for an Environmental Impact Assessment. Commissioned by the Institute of Applied Studies, University of the South Pacific. Duration 0.75 months.

1996 - 1997 - Lao PDR - Team Leader - Environmental and Social Action Plan for the Nakai Nam Theun Conservation Area. The study team drew up an integrated conservation and development plan for the 3,700 km² water catchment of a proposed hydropower dam. The catchment, a designated protected area, has great biodiversity value including populations of two recently described ungulates, the Saola and the Giant Muntjac, and is also home to approximately 4,500 inhabitants in discrete communities which have over 20 separate languages in three language groups. The IUCN Consultant Team of eight international and three Laos national consultants was fielded for a seven month period to undertake the World Bank commissioned assignment.

1996 - Cambodia - Protected Area Specialist - a review of the Draft Management Plan for the Preah Sihanouk NP prepared by the Ministry of the Environment and IUCN - the World Conservation Union, in order to assist in completing the document and providing UNDP's Environmental Technical Assistance Project with recommendations on funding priorities. Duration 0.5 months.

1992 - Fiji - Preparation of a management plan and action strategy for the Yadua Taba Island Reserve. The island, a sanctuary for the Crested Iguana *Brachylophus vitiensis* a large iguanid discovered in 1978, has been declared a sanctuary by the Fiji Government. The plan was drawn up over an eighteen month period enabling considered participation by the Fijian communities involved. The plan seeks to ensure long-term protection for the island and thus the iguana, as well as ensuring that the traditional owners of the island can benefit from the sanctuary. Commissioned by the World Wide Fund for Nature and the National Trust for Fiji. Duration - two months over a 15 month period.

1992 - Fiji - National Biodiversity Review. A review of the state of knowledge of Fiji's terrestrial biodiversity with a commentary on the status of legislation, protected areas and wildlife management. Commissioned by the South Pacific Regional Environmental Programme, Apia, Samoa. Duration - 1 month

1991 - Fiji - Management of the seabirds nesting on Vunivadra Island, Nadi Bay. A report for Aquila (Fiji) Ltd., the developers of a tourist resort. Duration - 1 week.

1991 - Fiji - Bouma Forest Park, Taveuni - Park Planner/Ecologist in a two man team drawing up a Management Plan for a landowner initiated and managed forest conservation project which was being funded by the New Zealand Government. Responsible for identifying biodiversity and conservation values of the proposed site and contributing to recommendations for an appropriate administrative structure for this ground-breaking project in Fiji. Duration - 1 month.

1990-91 - Indonesia - Fauna and habitat specialist in a World Bank Technical Assistance Consultant Team undertaking a project to upgrade management in five National Parks (Baluran-Ijen-Alas Purwo, Bromo Tengger-Semeru, Bali Barat, Dumoga and Gunung Leuser). Consultants - New Zealand Government's Department of Conservation. Eight month input over two years.

1990 - Fiji - Terrestrial and marine biological resource survey for an Environmental Impact Assessment of the proposed Lakomai Resort, Malolo for Harrison & Grierson Consultants, Suva. Duration - 1 week.

1990 - Fiji - Terrestrial, marine and cultural resource survey for an Environmental Impact Assessment of the proposed Nautilus Resort, Nacula Island, Yasawa Group, for Kinhill Kacimaiwai (Fiji) Ltd. Duration - 1 week.

1989 - Fiji - Wildlife of the proposed Bua Rice Irrigation Project, Vanua Levu. A report for the Institute of Natural Resources, University of the South Pacific, Suva. Duration - 2 weeks.

1989 - Fiji - Fauna and Flora survey of Vomo Island commissioned by the Institute of Natural Resources, University of the South Pacific. Duration - 1 week.

1989 - Fiji - Management Plan for the Garrick Memorial Reserve for the National Trust for Fiji. A national project financed by the South Pacific Commission through the South Pacific Regional Environment Program. The 1,000 acre Garrick Reserve is Fiji's most important conservation area for lowland and foothill tropical moist forest. Duration - 1 month

1986 - Fiji - Wildlife Biologist/Forest Ecologist. Undertook a forest and fauna survey of Naitauba Island for its owners, the Johanine Daist Communion, as a base line study for the future development of the island. A plan was prepared with recommendations for conservation zoning and management. Duration - 1 week

1983 - Fiji - As Forest Ecologist and Park Planner for Fawcett, Wilton & Bell Ltd. contributed to a major report on the development of Vaturu Dam, commissioned by the Ministry of Public Works. The plan envisaged a combination of tourism and protection of the forested catchment to provide an inland tourism and recreation attraction which would enable the landowners to receive a financial return whilst ensuring catchment protection for a sustained water supply. Duration - 2 months.

1981 - Indonesia - As Wildlife Biologist with a World Wildlife Fund team undertook a survey of the Kayan-Mentarang Reserve, East Kalimantan. A plan was prepared to modify extensively the boundaries to exclude on-going developments, incorporate regional requirements and include special forest ecotypes. Duration - 6 weeks.

1978-81 - Project Leader - World Wildlife Fund Project 1526: Lore Lindu National Park, Central Sulawesi, Indonesia. Duties included:

- Assisting the Indonesian Conservation Authorities on Reserve Identification, Planning and Management.
- Training the National Park Guard Force.
- Initiating a Public Awareness and Conservation Education Programme.
- Ecological research on some of Sulawesi's endemic fauna to identify conservation needs.
- Reporting on Timber Concession practices and watershed management.

For nine months responsible for the WWF Dumoga-Bone Project in North Sulawesi, and had coordinating responsibility for Operation Drake's exploration and research in Morowali, Central Sulawesi. Following which a Management Plan for the Morowali National Park was drawn up. Duration - 3.5 years.

Others – including Project Formulation and Reviews; Ecotourism etc

2012 – Fiji – Manager – Preparation of Tender Documents for the Design & Construction of Phase 2 of Naboro Landfill. Dept. of Environment, Government of Fiji.

2010 – Fiji – Manager – Preparation of Tender Documents for the Naboro Landfill Operator. . of Environment, Government of Fiji.

2009 – Fiji – Preparation of Tender Documents for the Extension of the Naboro Landfill, Rewa. . of Environment, Government of Fiji.

2009 – Fiji, Solomons & Papua New Guinea – Preparation of a report “National CITES-related legislation and its impact on opportunities for native floriculture”. ACIAR

2008 – Fiji – JICA Waste Minimization and Recycling Promotion Project – undertaking Community, Recycling and Composting Surveys. Duration 1.5 months

2007 – Fiji – Environment Specialist – Due diligence review of three undeveloped properties in the Yasawa Group for an international consortium investing in a land bank. Duration – 0.25 months.

2007 – Fiji – Preparation of a review report on bird strike hazard at Nadi and Nausori Airfields with an assessment of training needs. Commissioned by Airports (Fiji) Ltd. Duration – 0.25 months.

2007 – Vanuatu – Preparation of a report on bird strike hazard at three Vanuatu airfields – Bauerfield (Efate); Whitegrass (Tanna) and Pekoa (Santo). Commissioned by Airports Vanuatu Ltd. Duration – 0.5 months.

2006 – Fiji – Status of shark by catch in the Longline fishing industry – Fiji as a case study in the Pacific – Western Pacific Regional Fishery Management Council, Hawaii. Duration 1 month over 1 year.

2002 – Fiji – Design and Environmental Effects Assessment of a mini abattoir for the Haynes Estate, Vanua Levu. Duration – 0.25 months.

2002 - Fiji - Environmental Management Training for the Environment Officer of COVEC - contractors for the upgrading of the King's and Lodon Roads. Included - water sampling, inspections, report writing and EMP revision. Duration - 0.25 months.

2002 - Fiji - Lecture series on biodiversity conservation-related topics for Pacific Island Community Conservation course at the University of the South Pacific. Duration - 0.25 months.

2002 - Fiji - Locational and subject assistance for Tim Laman, National Geographic photographer - biodiversity hotspot assignment.

2002 – International – Environment Specialist – Desk Review – Assessing Linkages between Biodiversity Conservation and Poverty Alleviation. A desk review of 14 World Bank GEF projects. World Bank. Duration – 0.75 months.

2002 – Environment Specialist – Nasomo Landowner's Trust Environmental Claim – Phase 1. The community perceives it is being impacted by mining operations from the Emperor Mine and is assessing what options are available for it to address this issue. The report looks at the adequacy of existing environmental data to support a legal claim. Duration – 0.25 months.

2001 – Fiji – Landscape Specialist – Batter Revegetation Analysis for the Taveuni Coastal Road Upgrade Project. Commissioned to make an assessment of the revegetation characteristics of the batters constructed during the project with recommendations for improvements including specifications. Public Works Department. Duration – 0.25 months.

2001 – Fiji – Environment Specialist. Natadola Access Roads Upgrade Project: a) Landscape-batter revegetation analysis; b) Draft Environmental Management Plan Preparation for. Roughtons International. Duration – 0.25 months.

2001 – Fiji – Pacific Island Ecologist. Wildlife survey of Nanuyalevu Island better-known as Turtle Island, internationally self-acclaimed 'Green' Resort. Duration – 0.25 months.

2000 – Lao PDR – Biodiversity/Protected Area Specialist. Implementation Completion Report for the Forest Management and Conservation Area Project, Lao PDR, a part Global Environment Facility funded project. World Bank – Duration – 0.5 months.

2000 – Fiji - Environment Specialist – Review of EU Project Proposal by South Pacific Applied Geoscience Organisation 'Integrated planning and management in the sectors impacting on hazards, aggregates and water resources in Pacific ACP States'. CSA Group Dublin for the EU – Duration - 0.5 months.

1999 – Lao PDR – Environment Specialist and Team Leader – Preparation of Environmental Inventories for the Provinces of Bolikhamxai, Louang Prabang and Oudomxai. The Inventories were prepared to provide resource documents for the provincial and national planning

authorities, especially the road and infrastructure planners, to enable environmental planning to be better incorporated into the overall strategic planning process. Preparation of an Initial Environmental Examination of Route 8A Upgrade. Duration – 4 months.

1998-2000 – Fiji – Environment Specialist – Preparation of Environmental Code of Conduct for the filming of ‘Castaway’, starring Tom Hanks, on the island of Monuriki – A Site of National Significance. The Code was a component of the contract between the Native Land Trust Board and Dreamworks Productions, California. Field Observer and Independent Arbiter of environmental impact. Duration - estimated at 6 weeks over 2 years.

1998-9 – Fiji – Wildlife Biologist/Interpretation – Provided assistance with an interpretive programme for landowner managed ecotourism ventures, the Koroyanitu Heritage Park, Viti Levu, and the Bouma Heritage Park, Taveuni. Input included discussing requirements with the landowners, designing type of materials and preparing interpretive materials. Commissioned by Tourism Resource Consultants for New Zealand Overseas Development Assistance. Duration: 2 months over 2 years.

1995 - Papua New Guinea - Team Leader of a three man international project review team of UNDP’s GEF funded ‘Biodiversity Conservation and Resource Management Programme’ in Papua New Guinea. The Project commenced in September 1993 and seeks to conserve biodiversity through the trialling of innovative methods of conservation, the provision of institutional strengthening of the Government’s Department of Environment and Conservation, and to establish an appropriate legal, financial and policy framework for future conservation needs. Commissioned by UNOPS, New York. Duration - 3 weeks

1994 - Fiji - Report on bird watching in Fiji for United Touring Fiji Ltd. A brief synopsis of the significance of the Fiji avifauna especially the species of interest to birdwatchers; the location of good birding sites in Fiji and lists of birds to be seen.

1993 - Fiji - Ecotourism and cultural tourism development for the Toberua Island Resort, Fiji. A two stage project to assist the exclusive Toberua Island Resort develop its ecotourism opportunities. First phase consisted of the identification of ecotourism opportunities which was completed in October 1993. Second phase was the preparation of management guidelines, visitor literature and operator/guide training of selected attractions. The ecotourism and cultural opportunities identified for development were a seabird nesting colony on the uplifted reef island of Mabualau; mangrove ecology and traditional utilisation and an historical walk on the Kaba peninsula, the site of one of Fiji’s most significant tribal battles.

1993 - Fiji - Wetlands Workshop. Resource person to the Fisheries Dept., Fiji Government for a 5 day workshop on the wetlands of Fiji and American Samoa. The workshop was designed to provide a reference for traditional owners of wetland resources in American Samoa, in order for them to better appreciate the need for sustainable management of such resources and the institutional framework for such management in Fiji. 1 week duration.

1993 - Western Samoa - Member of a two man UNDP Mission to evaluate the PMI/90/002 (Planning and Implementation of Pacific Regional Environment Programme) and to draw up a project document for a Capacity - 21 Follow up Project. The PMI Project, a 3 year US\$2.5 million project was designed to assist SPREP (the South Pacific Regional Environment Programme) in its move as a component of the South Pacific Commission to full autonomy as a regional institution with full operational and institutional capacity. 7 week duration.

1993 - Papua New Guinea - Team Leader, Environment Specialist. Project identification and design assignment for IUCN - the World Conservation Union, Switzerland. Undertook a preliminary regional environmental assessment of the Fly River Catchment in which is located the OK Tedi Copper Mine and the Porgera Gold Mine and preparation of a sustainable development project proposal for international donors. One and a half month duration.

1989-92 - Fiji - Environmental Consultants (Fiji) in association with Margules, Groome Poyry, Canberra were the Landscape Consultants for Fiji’s New Parliament Complex. Phase 1 of the project, with a contract price of \$160,000 was successfully completed in August 1992. Phase 2, the Senate, is on hold, in the design stage.

1992 - Fiji - Preparation of commentary and material for the Fiji Museum exhibit "Wildlife Under Threat", commissioned by the Fiji Museum.

1992 - Fiji - Forest Ecologist and Environment Specialist - resource person for a team from the Ministry of External Relations and Trade, reviewing financial and technical assistance by the New Zealand Government to Fiji's hardwood plantation programme. Duration - 0.5 months

1991 - Fiji - Commercial Agricultural Development. A review of the environmental effects of a USAID Project Proposal for its Pacific Islands' Programme. Commissioned by the USAID Office, Suva. Duration - 1 week.

1991 - Fiji - Pacific Environment Exhibition - Seville Expo, 1992. Preparation of a background paper on the natural environments of the Island Pacific, for Pacific Discoveries Ltd. Suva. Duration - 1 week.

1991 - Fiji - Profitable Environmental Protection. Resource Person to the World Wide Fund for Nature team negotiating the design of 'Profitable Environmental Protection', a USAID project for the Island Pacific. Duration - 1 week.

1991 - Fiji - Management of the seabirds nesting on Vunivadra Island, Nadi Bay. A report for Aquila (Fiji) Ltd., the developers of a tourist resort. Duration - 1 week.

1991 - Fiji - Preparation of Fiji's National Report on the State of the Environment for the United Nations Conference on the Environment and Development, in Brazil, June 1992. Contracted by the South Pacific Regional Environmental Programme, Noumea for the Ministry of Housing and Urban Development, Government of Fiji. Duration - 3 months.

1990 - Fiji - Research for and writing of an illustrated booklet and an advertising brochure on the Tavuni Hill Fort Archaeological Park, Sigatoka, for the Tourism Council of the South Pacific, Suva. Duration - 2 weeks.

1990 - Fiji - Denarau Horticulture Project. A report for the Landscape Architects - LDI International, Sydney, on the proposed golf course landscape. Duration - 3 days.

1990 - Fiji - Landscape and Development Plan for the proposed Battery Hill Public Park, Suva, for the Ministry of Infrastructure and Public Utilities. Duration - 3 weeks.

1989 - Fiji - Project Manager/Environment Specialist for an Environmental Study commissioned by Paget Mining (Fiji) Ltd. A preliminary environmental, cultural and social impact assessment of a proposed dolomite mining operation on a forested outcrop in the Sigatoka Valley. The study focused on the values of the site's unique landscape qualities, its numerous historic sites and a community survey of the landowning and neighbouring villages. Duration - 3 weeks.

1989 - Fiji - Team Leader and Park Planner in the preparation of a master plan to develop the Tavuni Hill Fort Archaeological Site as a landowner managed and operated tourist attraction. The study undertook a detailed site survey and a community survey to identify landowner aspirations and requirements; recorded historical information and stories about the site; made a faunal and floral inventory with local names for significant species; provided requirements for a Reception Centre and commissioned engineering specifications for civil works on the site and for a river jetty. An assignment for the Ministry of Tourism and the Tourism Council of the South Pacific. Duration - two man months.

1988 - Fiji - Survey of the sites of cultural and archaeological significance within the Paget Prospect, Naqwalimare, Sigatoka Valley. A survey to record cultural, historical and archaeological sites on a prominent limestone formation proposed as a source of high quality limestone. Duration - 1 month

1988-89 - Fiji - Appraisal of bird hazard potential at Nadi International and Nausori Airports. Prepared two reports for the Civil Aviation Authority of Fiji, the first assessing bird hazard potential to aircraft using Nausori Airport, from the Nausori Sewage Treatment Plant and providing recommendations for management, monitoring and mitigation. The second report appraised the bird strike hazard at Nadi International Airport, identifying the species concerned; inappropriate land management practices close to the airport and providing recommendations for monitoring and target species management. Duration - 3 weeks.

1988 - Fiji - Preparation of a technical report for Wilson Addison & Co. on the conservation and tourism potential of the natural history of the South Pacific, enabling them to prepare a Nature Tour Brochure for the Secretariat, Tourism Council of the South Pacific. Duration - 1 week.

1987 - Solomon Islands - Ecologist/Environment Planner in the EEC funded Tourism Council of the South Pacific's Project to identify nature sites and subjects of special interest and with potential for tourism. Duration - 3 weeks.

1987 - Fiji - As Conservation Planner undertook a two phase study for the Tourism Council of the South Pacific on the potential of Fijian archaeological sites as tourist attractions and its role in their preservation. Phase I included an analysis of Fijian archaeological sites, their current conservation and tourism potential. Phase II was a detailed study of 40 sites in the Sigatoka Valley with recommendations for the development of three sites. (EEC funded). Duration - 7 weeks.

1987 - Fiji - Mangrove Ecologist. Responsible for the design of a boardwalk through mangroves and an accompanying interpretive booklet, at Turtle Island Lodge an exclusive tourist resort. Duration - 1 week.

1984-85 - Fiji - Columnist with Sunday Times, Suva, Fiji. Writing a weekly 1,000 word column on Fijian wildlife and environmental matters. (Part Time).

PUBLICATIONS SUMMARY

National Reports - Fiji:

Fiji - State of the Environment (IUCN 1991)

Fiji - National Environment Strategy (IUCN 1992)

As Team Leader of the IUCN Consulting Team which prepared these two studies, Dick Watling provided the oversight for their content and scope, sought and managed specialist expertise, and undertook much of the writing.

Fiji – Biodiversity Strategy and Action Plan (Government of Fiji, 1999)

As Lead Consultant, Dick Watling provided coordination and oversight in the production of this plan

Fiji – State of Birds 2013 NatureFiji-MareqetiViti – Government of Fiji, 2013)

Books:

A Guide to the Palms of the Fiji Islands.

192 pp 54 Colour Plates, maps, soft cover. Environment Consultants Fiji. Suva, Fiji

A Guide to the Birds of Fiji and Western Polynesia.

262 pp. 16 Plates, maps, hard cover. Environment Consultants Fiji in conjunction with South Pacific Regional Environment Program, Suva, Fiji.

Birds of Fiji, Tonga & Samoa.

176pp. 15 Plates, numerous colour photos, black & white illustr.
Millwood Press, Wellington.

Mai Veikau - Tales of Fijian Wildlife.

162pp. 8 colour and 52 black & white illustr., Fiji Times & Herald, Suva.

Birds of the Islands

Children's Book – with Neil Taylor. Longman's New Zealand

Pocket-Poster Guides to the Birds of Fiji:

1. Landbirds
2. Seabirds

Bilingual Pocket-Poster Guide to the Birds of the Kingdom of Tonga

Birds of Samoa and American Samoa

– with James Atherton. Conservation International Tropical Pocket Guide Series –
Pocket Identification Guide

Dickinson, E. C. & J.V.Remsen Jr (Eds) 2013/14. The Howard & Moore Complete Checklist of the Birds of the World. 4th Edition, Vol. 1. Non-passerines. Vol 2. Passerines. Aves Press, Eastbourne, UK (DW is the Regional Consultant: Western Pacific Islands).

Thesis:

The Applied Ecology of the Red-vented Bulbul in Fiji.

University of Cambridge, UK.