
Curriculum Vitae (CV) for Proposed Professional Staff

- 1. Proposed Position:** **GIS Specialist**
- 2. Name of Firm:**
- 3. Name of Staff:** **Wijnand Durk LANGERAAR**
- 4. Date of Birth:** 24 Aug 1948 **Nationality:** Netherlands
- 5. Education:**
- B.Sc. in Geology, University of Groningen, the Netherlands, 1973.
 - M.Sc. Degree in Geology. Major subjects: (1) Sedimentology (Thesis: Palaeo-environment of an Eocene Sedimentary Basin, Pyrenees, Spain), (2) Mining Politics and Mining Law (Thesis: The Oil Politics of Libya), **cum laude**¹, Universities of Utrecht, Delft and Leiden, the Netherlands, 1977.
- 6. Membership of Professional Associations:** Dutch Remote Sensing Society
- 7. Other Training:**
- Aerial Photo Interpretation Applied to Soil Survey (with emphasis on remote sensing), International Institute for Aerospace Survey and Earth Sciences (ITC), Enschede, The Netherlands, 1977
 - Arabic speaking and writing, at FAO, Rome, 1979
 - Project Management course, MDF, Ede, The Netherlands, 1986
 - Advanced ESRI ArcGIS training, NGIS, Perth WA, Australia, May 2006
 - GeoSamba training in web-enabled GIS, NGIS, Perth WA, Australia, March 2010
 - Online course Python scripting for ArcGIS for Desktop ver. 10, Jan 2013
- 8. Countries of Work Experience:** (Last 10 years) Viet Nam, Afghanistan, Mozambique, Abu Dhabi, Gabon, Iraqi Kurdistan, Vanuatu, Mongolia, Fiji, East Timor, Myanmar, Indonesia, Rwanda, Philippines, Pakistan
- 9. Languages:**
- | | <u>Speaking</u> | <u>Reading</u> | <u>Writing</u> |
|------------|-----------------|----------------|----------------|
| Dutch | Mother tongue | Mother tongue | Mother tongue |
| English | Fluent | Fluent | Fluent |
| Indonesian | Fluent | Fluent | Fluent |
| French | Fluent | Fluent | Fluent |
| German | Good | Good | Fair |
| Italian | Fair | Fair | Fair |
| Spanish | Fair | Fair | Fair |
| Portuguese | Basic | Basic | Basic |
| Arabic | Basic | Basic | Basic |
- 10A. Employment Record:** **(Last ten years)**
- From:** Oct 2015 **To:** present (intermittent – project until 2020)
- Employer:** Oxford Policy Management Limited, 6 St Aldates Courtyard, 38 St Aldates, Oxford, OX1 1 BN ("OPM"), UK. (Client: National Bureau of Statistics, Indonesia)
- Positions held:** Senior GIS Expert

¹Copy of diploma attached

From: Jul 2015
Employer:

To: present (intermittent - contract until 31 Dec 2015)
Asian Development Bank, Manila, Philippines. (Client: Urban Development and Water Division, CWRD - Central and West Asia Department). Based in Lahore, **Pakistan**, and work from home

Positions held: International GIS Specialist

From: Nov 2014
Employer:

To: June 2015
URS AUSTRALIA PTY LTD registered office 4/407 Pacific Highway, Artarmon, Australia 2064 ("URS"). (Client: SIMFER S.A. Address: Immeuble Bellevue, Boulevard de Bellevue DI 536 BP 848 Conakry, Republic of Guinea – RIO TINTO SIMANDOU PROJECT- Plan d'Action de Réinstallation et de Compensation). Worked mainly from home

Positions held: GIS and Image Interpretation Specialist

From: Jul 2014
Employer:

To: June 2015
Asian Development Bank, Manila, Philippines. (Client: ADB Natural Resources & Agriculture Division, **Central and West Asia** Department). Works from home and at ADB HQ Manila

Positions held: International GIS Expert

From: May 2014
Employer:

To: Jul 2014
Experience International, Inc. 239/2 Lumpini 1 Building, Suite 42, 4th Floor, Sarasin Road, Lumpini, Pathumwan. Bangkok 10330, Thailand. (Client: Government of **Iraq** – USAID)

Positions held: Senior GIS Specialist

From: Oct 2013
Employer:

To: Mar 2014
Sistemas Integrales, José Miguel de la Barra 412 - Casilla 13168 - Santiago, Chile. (Client: Development Research Group, The World Bank, 1818 H Street NW, Washington, DC 20433, USA). Worked from home on **Myanmar** data

Positions held: GIS-based Sampling Specialist

From: Jul 2013
Employer:

To: Aug 2013
Experience International, Inc. 239/2 Lumpini 1 Building, Suite 42, 4th Floor, Sarasin Road, Lumpini, Pathumwan. Bangkok 10330, Thailand. (Client: Government of **Iraq** – USAID). Worked from home

Positions held: Senior GIS Specialist

From: May 2013
Employer:

To: Dec 2013
Oxford Policy Management Limited, 6 St Aldates Courtyard, 38 St Aldates, Oxford, OX1 1 BN ("OPM"), UK. (Client: National Institute of Statistics of **Rwanda** (NISR) - DFID)

Positions held: GIS and Mapping Specialist

From: Feb 2013
Employer:

To: Feb 2013
UNDP, UN Building, 6 Natmauk Road, Yangon. (Client: **Myanmar** Information Management Unit (MIMU))

Positions held: Spatial Data Specialist

From: Oct 2012
Employer:

To: Nov 2012

Employer:	Oxford Policy Management Limited, 6 St Aldates Courtyard, 38 St Aldates, Oxford, OX1 1 BN ("OPM"), UK. (Client: National Institute of Statistics (INE), Maputo, Mozambique – DFID)
Positions held:	Database and Mapping Adviser
From: May 2012 Employer:	To: Nov 2012 UNFPA, UN Building, 6 Natmouk Road, Yangon, Myanmar . (Client: Ministry of Immigration & Population, Myanmar – UNFPA)
Positions held:	Census Cartography Adviser
From: Dec 2011 Employer:	To: Dec 2012 Michael-Moran Associates LLC 3705 Taylor Street, Chevy Chase, MD 20815, USA (Client: Iraqi Kurdistan Regional Government)
Positions held:	Mapping and Surveying Specialist, Survey Director
From: Sep 2010 Employer:	To: Aug 2011 (Intermittent) Cardno Emerging Markets (UK) Ltd/ICF International, (Client: Asian Development Bank (ADB), TA 7274-REG)
Positions held:	GIS Modelling and Mapping Specialist
From: Mar 2010 Employer:	To: Apr 2010 ICON-INSTITUT Public Sector GmbH, Cologne, Germany (Client: Central Statistical Organization (CSO), Kabul, Afghanistan)
Positions held:	GIS and Mapping Specialist
From: Dec 2010 Employer:	To: Dec 2010 Oxford Policy Management Limited, 6 St Aldates Courtyard, 38 St Aldates, Oxford, OX1 1 BN ("OPM"). (Client: National Institute of Statistics (INE) in Mozambique)
Positions held:	Database and Mapping Advisor
From: Apr 2010 Employer:	To: June 2010 Maxwell Stamp PLC, Abbot's Court 34 Farringdon Lane London EC1R 3AX United Kingdom (Client: Abu Dhabi Education Council - ADEC)
Positions held:	Spatial Planning and GIS Expert
From: Mar 2010 Employer:	To: Apr 2010 The World Bank, Libreville, Gabon (Client: Direction Générale des Statistiques (DGS) du Gabon)
Positions held:	Expert en Techniques des Sondages
From: Sep 2008 Employer:	To: Dec 2009 (Intermittent) Michael-Moran Associates LLC 3705 Taylor Street, Chevy Chase, MD 20815, USA (Client: Iraqi Kurdistan Regional Government, Kurdistan Region Statistical Office (KRSO), Ministry of Planning)
Positions held:	GIS, GPS and Mapping Adviser, Survey Manager
From: Oct 2009 Employer:	To: Nov 2009 Oxford Policy Management Limited, 6 St Aldates Courtyard, 38 St Aldates, Oxford, OX1 1 BN ("OPM"). (Client: National Institute of Statistics (INE) in Mozambique)
Positions held:	Database and Mapping Advisor

From: Mar 2009
Employer:

To: Apr 2009
 Department of Dyke Management and Flood and Storm Control (DDMFSC) and Central Project Office (CPO), **Viet Nam** Ministry of Agriculture and Rural Development (MARD)

Positions held: GIS Specialist (Disaster Management)

From: Oct 2008
Employer:

To: Feb 2009
 Secretariat of Pacific Communities (SPC) (Client: **Vanuatu** National Bureau of Statistics)

Positions held: GIS/GPS Consultant for Census

From: Jul 2008
Employer:

To: Dec 2008 (Intermittent)
 UNFPA **Mongolia**
 (Client: Census Bureau in the National Statistical Office (NSO) of Mongolia)

Positions held: GIS and GPS Advisor for Census

From: Jun 2007
Employer:

To: Jun 2008 (Intermittent)
 Michael-Moran Associates LLC
 3705 Taylor Street, Chevy Chase, MD 20815, USA
 (Client: **Iraqi Kurdistan** Regional Government - KRG, Ministry of Municipalities)

Positions held: GIS, GPS and Mapping Adviser

From: Jul 2007
Employer:

To: Jul 2007
 Geographic Planning Collaborative, Inc. (GPC)
 (Client: **Abu Dhabi** Systems & Information Council - ADSIC)

Positions held: GIS and GPS Adviser for Census

From: Oct 2006
Employer:

To: Mar 2007 (Intermittent)
 World Food Programme (WFP), Dili, **Timor-Leste**

Positions held: GIS and Mapping Adviser

From: Nov 2006
Employer:

To: Apr 2008 (Intermittent)
Fiji Islands Bureau of Statistics

Positions held: GIS and GPS Adviser for Census

From: Sep 2006
Employer:

To: Mar 2007
 Michael-Moran Associates LLC
 3705 Taylor Street, Chevy Chase, MD 20815, USA
 (Client: **Iraqi Kurdistan** Regional Government, Ministry of Planning)

Positions held: GIS, GPS and Mapping Adviser

From: Aug 2006
Employer:

To: Oct 2007 (Intermittent)
 EPANZ Services P/L, P.O. Box 268 Mangonui, 0442, New Zealand. (Client: Norconsult, Norway/Department of Environment **Timor-Leste**)

Positions held: GIS and Mapping Specialist

From: Feb 2005
Employer:

To: Jul 2006
 Illawara Technology Corporation Limited, funded by the Australian Government. (Client: **Timor-Leste** National Directorate for Land and Property (DNTP), Ministry of Justice)

Positions held: National Mapping Adviser

From: May 2003
To: Jan 2005

Employer: United Nations Population Fund (UNFPA), Dili, **Timor-Leste**.
(Client: Timor-Leste National Directorate of Statistics)

Positions held: Census Mapping Manager

10B. Positions Prior to 10 Yrs Ago

From: 1988

Employer:

To: Present

Self-employed free-lance consultant

Positions held:

GIS and Mapping Consultant

From: 1981

Employer:

To: 1988

Euroconsult, Arnhem, The Netherlands

Positions held:

Remote Sensing and Survey Specialist

From: 1977

Employer:

To: 1981

Food and Agriculture Organization of the United Nations,
Rome, Italy

Positions held:

Remote Sensing Specialist (Associate Expert)

11. Detailed Tasks Assigned

12A. Work Undertaken that Best Illustrates Capability to Handle the Tasks Assigned (last 10 yrs)

Name of assignment or project: STATCAP-CERDAS: Statistical Transformation and Quality Improvement, National Bureau of Statistics (BPS), Indonesia

Year: 2015 – 2020, intermittent

Location: Jakarta, Indonesia

Client: National Bureau of Statistics

Main Project Features: The Project aims to move the BPS statistical programme from a set of semi-autonomous surveys to a harmonised suite of surveys that draw on a common statistical infrastructure. This involves three steps: (i) recognise the common features that underlie all surveys in the form of a Generic Statistical Business Process Model (GSBPM). This is the starting point for harmonisation of operations. (ii) Build the corporate statistical infrastructure required to support as many of the common processes identified in the model as possible and to identify those which will be the mandate of specialist subject matter teams. (iii) Progressively re-engineer the surveys component and to build new application systems based on the corporate statistical infrastructure so that the goals of improved harmonisation, integration and efficiency are achieved.

Name of assignment or project: SC 105506 PAK: Punjab

Intermediate Cities Improvement Investment Program - Integrated City Development Strategy

Year: 2015, intermittent

Location: home based, ADB HQ, Pakistan

Client: ADB, Urban Development and Water Division, CWRD Central and West Asia Department

Main project features: Rapid economic, environmental, social and climate change diagnostics for the cities of Sialkot and Sahiwal, Punjab area, Pakistan

Positions held: Geographic Information System (GIS) Expert

Activities being performed:

1. Compiling geographic data, field observation, satellite imagery, aerial photographs, and existing maps as well as data from Pakistan government sources
2. Creating new and layered maps (e.g. population density and climate hazards) using GIS software and related equipment
3. Analysing and synthesizing relationships among varying types of data and information in support of the identifying climate risks, hazards, vulnerabilities, developing adaptation

- measures, and designing climate resilient urban infrastructure and communities; and
4. Facilitating the compilation and upload to a data repository of generated relevant GIS based data and information

Name of assignment or project: RIO TINTO SIMANDOU PROJECT-Plan d'Action de Réinstallation et de Compensation

Year: 2014-2015

Location: Guinea/home based

Client: SIMFER S.A. Conakry/Rio Tinto

Main project features: The Simandou project provides access to one of the world's largest untapped (over 2 billion tonnes), high grade iron ore resources in the world. It can sustain a mine life in excess of 40 years and has the potential to make Guinea one of the world's top iron ore exporters. The study aimed to specify investment requirements prior to mine development

Positions held: GIS and Image Interpretation Specialist

Activities performed:

- Setting up of a GIS for land cover mapping along trans-Guinean rail road corridor
- Interpretation of recent, high-resolution (50 cm) satellite imagery along a wide swath of area straddling the trans Guinea railroad alignment (zone of 650 km by 20 km)
- Detailed mapping of terrain features using Esri® ArcGIS for Desktop ver. 10.3

Name of assignment or project: TA7274 REG: Enabling Climate Change interventions for Central and West Asia.

Year: 2014-2015

Location: Manila, Philippines, mainly home based

Client: Asian Development Bank, Urban Development and Water Division, CWRD Central and West Asia Department

Main project features: The overall objective of TA7274 is to mainstream climate change amongst Asian Development Bank (ADB) developing member countries (DMCs) in the Central West Asian region (CWA). The expected impact is low-carbon inclusive economic growth and climate-resilient development

Positions held: GIS Expert

Activities performed:

- Conceptualized and managed the building of a state-of-the-art cloud-based GIS system with sophisticated analysis capabilities. The Astro GIS facility serves as a reconnaissance tool to assist ADB project officers in project planning and policy making related to land and water management, climate risk screening and greenhouse gas emission analysis in the Central and West Asia region
- Sourced and curated spatial data (raster and vector) to be included in the cloud-based GIS analysis tool
- Prepared Inception Report, Technical notes, Work Plans, Manual of Operations, Final Report, ADB CWA Spatial Data Repository with Documentation and Users' Manual
- Provided training of designated ADB staff in the use of Esri® ArcGIS, GIS tool and to facilitate handing-over

Name of assignment or project: Iraq Opportunities Program (Foras)

Year: 2013 - 2014

Location: Iraq

Client: Government of Iraq - USAID

Main project features: a two-year program funded by USAID assisting the Government of Iraq in bringing together job seekers and potential employers using SMS push technology and GIS

Positions held: Senior GIS Specialist

Activities performed:

- Organized and set up geospatial database and Management Information System
- Determining organization-wide GIS needs by performing a User Needs Analysis
- Building a GIS display framework that incorporates project themes and displays changes over time

- Identifying base layers required for each project catchment area
- Specifying additional layers needed to explain project activities, inputs and outputs
- Reviewing data being captured from mobile data collection devices and various databases
- Recommending modifications to improve data capture procedures
- Presentations to USAID staff
- Training of counterparts
- Prepared training manuals, technical reports, final report

Name of assignment or project: Assisting National Institute of Statistics of Rwanda in implementing GIS and Mapping Techniques

Year: 2013

Location: Rwanda

Client: National Institute of Statistics of Rwanda – DFID

Main project features: During the lifetime of the Framework Contract, charged from time to time to perform various assignments, involving assisting NISR in various statistical areas. In particular responsible for assistance to NISR in mapping and GIS techniques.

Positions held: Mapping and GIS Specialist

Activities performed:

- Completed some 80 thematic maps based on the 2012 census of Rwanda
- Designed a Dashboard for easy viewing of thematic maps
- Capacity building of NISR GIS staff
- Prepared training manuals

Name of assignment or project: Myanmar National Spatial Data Infrastructure

Year: 2013

Location: Yangon, Myanmar

Client: UNDP - Myanmar Information Management Unit – MIMU

Main project features: Assisting MIMU with formulating the Myanmar National Spatial Data Infrastructure (NSDI)

Positions held: Spatial Data Specialist

Activities performed:

- Met with stakeholders (institutions using or producing spatial data)
- Formulated a preliminary plan for the setting up of an NSDI

Name of assignment or project: Myanmar 2014 Population and Housing Census

Year: 2012

Location: Yangon, Nay Pyi Taw

Client: UNFPA Myanmar - Government of Myanmar, Ministry of Immigration and Population, Department of Population (DOP)

Main project features: Assess the census cartography plan for the Myanmar 2014 Census, to propose new methodologies and to provide technical assistance

Positions held: Census Cartography Adviser

Activities performed:

- Designed an appropriate GIS system for use by DOP
- Designed the spatial database
- Specified, verified and installed computer hardware, software and peripheral equipment
- Provided training and technical assistance in approaches/methods to improve census cartography, use of GPS technology, and on remote sensing methodologies to 20 DOP staff
- Delivered a special management training course to high-level Ministry staff in GIS comprehension (what GIS can – and cannot – accomplish)
- Produced country-wide geo-referenced mosaic of scanned 50k and 250k scale topographic maps needed as mapping base and map backdrop
- Mapped and coded township maps to serve as starting point for census mapping

Name of assignment or project: Assistance to National Institute of Statistics (INE)

Year: 2009, 2010, and 2012

Location: Maputo, Mozambique

Client: National Institute of Statistics (INE) - DFID

Main project features: Providing GIS and mapping assistance to selected INE staff, in particular in techniques to visualize the statistical databases

Positions held: Database and Mapping Adviser

Activities performed:

- Assisted in setting up the INE geospatial database
- Producing animated maps showing key statistical indicators
- Strengthened INE's capacity to produce such maps independently
- Compression and mosaicking of topo maps to alleviate pressure on server and for use as thematic map backdrop
- Introducing ways to use Google Earth imagery effectively
- Gave presentations to management
- Wrote technical reports

Name of assignment or project: Iraqi Kurdistan Christianity Project

Year: 2011 - 2012

Location: Erbil, Iraqi Kurdistan

Client: Regional Government of Iraqi Kurdistan

Main project features: A public relations project with Catholic University (Washington DC) for Iraqi Kurdistan to demonstrate and quantify the level of religious freedom there. Target audiences are US Christians and US Congress.

Positions held: Mapping and Surveying Specialist

Activities performed:

- Production of the first-ever Iraqi Kurdistan Christianity Map
- Designing and implementing a random sample survey of the Christian population of a Christian enclave (Ainkawa near Erbil)
- Interviewed and videoed numerous Christian inhabitants throughout Iraqi Kurdistan
- Presented map and survey results during a conference in Washington DC (December 2012).

Name of assignment or project: "Enabling Climate Change Interventions in Central and West Asia: CWA Hazard and Risk Map, Wind and Solar Energy Atlases".

Year: 2010-2011

Location: Central and West Asia

Client: Asian Development Bank

Main project features: TA to advise the Bank in pinpointing optimum locations for investment in renewable energy power generating plants in ten central and west Asian countries (Afghanistan, Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Pakistan, Tajikistan, Turkmenistan, Uzbekistan)

Positions held: GIS Modelling and Mapping Specialist

Activities performed:

- Set up a geospatial database to enable mapping of the ten CWA countries making a.o. use of the Geospatial Toolkit, an NREL-developed map-based software application
- Determined sub-regional distributions of solar and wind resources to a high spatial resolution (2 arc-minutes)
- Put together a highly visual, region-wide, country level, and sub-regional color-coded GIS-based (and hard copy) solar and wind resource atlas
- Mapped out solar and wind power plant location constraints and inter-phased with the solar and wind atlases
- Pioneered and produced 4-D maps i.e. moving map displays (loops) to depict climate changes overtime (seasonal and era) and investment scenarios depicting rates of return areas with varying prime rates (both "space-time" and "space-economic parameter data-cubes") of the ten Central and West Asian countries showing optimum locations for power plants
- Presented results at ADB HQ, Manila

Name of assignment or project: National Risk and Vulnerability Assessment

Year: 2011

Location: Kabul, Afghanistan

Client: Central Statistical Organization (CSO), Kabul – Donor Agency: European Union. This GIS component was separately sponsored by DFID, Kabul

Main project features: Technical Assistance, GIS and Mapping Support to CSO for conducting the National Risk and Vulnerability Assessment

Positions held: GIS and Mapping Specialist

Activities performed:

- Provided training in improved mapping techniques to 20 CSO GIS Unit staff
- Introduced combining of SRTM shaded relief with Russian 1/50k topo maps
- Provided training to 30 Afghan NRVA survey supervisors in use of hand-held GPS
- Demonstrated techniques for effective GPS/GIS integration to CSO GIS Unit staff
- Set up a spatial database structure for CSO GIS Unit
- Produced, in collaboration with assigned CSO GIS Unit staff, highly sophisticated NRVA survey map templates

Name of assignment or project: Training in sampling techniques to Direction Générale des Statistiques du Gabon

Year: 2010

Location: Libreville, Gabon

Client: The World Bank - Direction Générale des Statistiques (DGS) du Gabon

Main project features: Delivery of a training course in sampling techniques to designated DGS staff

Positions held: Expert en Techniques des Sondages

Activities performed:

- Trained designated staff of the statistics office (DGS) in sampling techniques applied to land use surveys involving random survey starting points
- Introduced software to quickly calculate margins of error with varying sampling, cluster and population sizes, confidence interval and prevalence
- Delivered basic training in the use of handheld GPS and GIS related to random sampling
- Training was delivered as the sole lecturer entirely in French language

Name of assignment or project: GDP Assessment of Iraqi Kurdistan
Year: 2008 - 2009

Location: Iraqi Kurdistan

Client: Iraqi Kurdistan Regional Government, Kurdistan Region Statistical Office, KRSO, Ministry of Planning

Main project features: Providing GIS, GPS and mapping services for Industrial Output surveys aimed to contribute to determining GDP of the Region

Positions held: GIS, GPS and Mapping Adviser, Survey Manager

Activities performed:

- determined the statistics office (KRSO) GIS requirements and designed an appropriate GIS system,
- provided training of designated KRSO staff in GIS and GPS techniques applied to surveys involving random survey starting points
- Providing GIS, GPS and mapping services for Industrial Output surveys aimed to contribute to determining GDP of the Region
- Played key role in improving information management
- Managing fieldwork operations for Region-wide Industrial Output surveys
- Spatial analysis of survey data to determine expansion factors
- Managing finances of the GDP project

Name of assignment or project: Technical Assistance for Natural Disaster Risk Management **Year:** 2009

Location: Viet Nam

Client: Department of Dyke Management and Flood and Storm Control (DDMFSC) and Central Project Office (CPO), within the Ministry of Agriculture and Rural Development (MARD) - AusAID

Main project features: Consulting services and equipment (hard/software) for upgrading GIS facilities and capability for application of GIS to disaster risk management at central and regional level

Positions held: GIS Specialist (Disaster Management)

Activities performed:

- Preparation of Terms of Reference for a GIS software and hardware, and GPS package
- Field visits Da Nang, Ho Chi Min City

Name of assignment or project: Mongolia 2010 Population and Housing Census

Year: 2008

Location: Ulaan Baatar

Client: UNFPA - Census Bureau in the National Statistical Office (NSO) of Mongolia

Main project features: Introduction of GIS, GPS and Mapping for the Population and Housing Census

Positions held: GIS and GPS Advisor for Census

Activities performed:

- Assessed mapping capabilities in Mongolia
- Developed a plan for use of GIS and GPS in the 2010 Population and Housing Census
- Converted NSO database into thematic maps

- Provided basic and advanced GIS and GPS training to selected NSO staff. Emphasis on spatial analysis and population modelling using GPS household location waypoints.
- Training manual writing and final reporting

Name of assignment or project: Coordination of national mapping activities

Year: 2005 - 2006

Location: Timor-Leste

Client: National Directorate for Land and Property (DNTP), Ministry of Justice - AusAID

Main project features: As National Mapping Adviser charged with assisting the National Directorate for Land and Property (DNTP) in the coordination of national mapping.

Positions held: National Mapping Advisor

Activities performed:

- Capacity building of GIS and mapping staff at DNTP
- Assessed and upgraded base maps, and
- Established the Timor-Leste national Spatial Data Infrastructure (SDI), involving developing of policies for updating, exchange and integration of spatial data, and setting standards for cartographic output
- Extensive reporting to AusAID

Name of assignment or project: Timor-Leste Population and Housing Census

Year: 2003 - 2005

Location: Dili, Timor-Leste

Client: United Nations Population Fund (UNFPA) - Timor-Leste National Statistics Institute

Main project features: Population and Housing Census. The first to develop and implement a comprehensive GPS-based system to create a national Census household location database.

Positions held: Census Mapping Manager

Activities performed:

- Trained counterpart staff at National Statistics Directorate in the use of GPS and GIS for census purposes
- Produced some 2000 Enumeration Area maps for the 2004 Census
- Pioneered the use of GPS for census – a first worldwide
- Organized and managed a comprehensive GPS survey of all households nationwide,
- Purchased 730 handheld GPS units
- Delivered enumerator training
- Linked GPS waypoints with census questionnaire database
- Produced thematic maps for each census topic
- Through spatial analysis and modelling, established correlations and causalities from the combination of Census results with 3rd party spatial information

12B. Selected Work Undertaken Prior to 10 Yrs Ago that Additionally Illustrates Capability to Handle the Tasks Assigned

Name of assignment or project: Satellite Assessment of Rice in Indonesia (SARI)

Year: 1998 - 2001

Location: Jakarta, Indonesia

Client: European Community ALA/96/01– Badan Penkajian dan Penerapan Teknologi (BPPT – Agency for the Assessment and Application of Technology)

Main project features: The project aimed to introduce (and render operational) the use of space-borne remote sensing data (both

microwave and optical), with agro-statistical techniques and numerical crop growth modelling in a GIS environment, for nationwide rice monitoring and production forecasting.

Positions held: Project Manager (Consortium) - Co-Director (Europe)

Activities performed:

- Responsible for all financial, administrative, and technical aspects of the project. In particular, performed the following tasks:
- Heading and coordinating a consortium of European companies (French, Dutch, Italian)
- Liaison with Indonesian Project partners
- Liaison with European Union Representation
- Liaison with European remote sensing, GIS, and agricultural research institutes to ensure a two-way flow of information related to the Project
- Preparation of budgets and work plans
- Ensuring timely and correct implementation and execution of the Project in accordance with work plans
- Establishment and implementation of appropriate accounting and financial management procedures
- Preparation of financial accounts and progress reports

Name of assignment or project: Second Land Resource Evaluation and Planning Project

Year: 1993 - 1997

Location: Indonesia

Client: Asian Development Bank (Loan 1099 - INO) - Directorate General of Regional Development

Main project features: Strengthening of Provincial Physical Planning Capabilities in East Java, Bali, West and East Nusa Tenggara, and East Timor Provinces

Positions held: Regional Team Leader & Physical Planner / GIS Specialist

Activities performed:

- Assisting Provincial Planning Bureaus (Bappeda) in setting-up of a framework for rational planning by establishing land zones based mainly on land suitability
- Development of an efficient and easy-to-use procedure of digitizing and geo-coding for ARC/INFO, using AutoCAD, simplifying the GIS process for staff with low exposure to GIS
- Development of a technique to extract high-detail Land Facet information from RePPPProT Land Systems through combination with slope class information. This technique allows determination of high-detail land suitability in uncharted areas
- Supervision and on-the-job training of counterparts in GIS and the production of topographic and thematic maps for land use, environmental monitoring, etc.
- Supervision on data consistency, field verification of findings
- Overall regional project coordination of various long & short term international and local experts
- Liaison with government authorities at national, regional and provincial level
- Preparation of monthly, quarterly progress reports, progress-briefings
- Financial, administrative and personnel management

Name of assignment or project: Merauke III Transmigration Project

Year: 1983 - 1986

Location: Indonesia (Papua Province)

Client: The World Bank - Directorate General of Transmigration

Main project features: Site selection of land for transmigration purposes in marginally suitable areas on the larger outer islands of Indonesia

Positions held: Soils and Land Evaluation Specialist

Activities performed:

- Managing and executing soil surveying field-work
- Design of a physiographic legend which was adopted project-wide

- Interpretation of aerial photographs of vast areas (larger than UK) of upland in South-East Papua (formerly Irian Jaya)
- Production of land unit base maps, land suitability and land use maps and soil maps through air photo interpretation
- Development of a cartographic method based on Landsat images and aerial photographs to produce high-precision base maps as an alternative to the Slotted Template method

Name of assignment or project: Nationwide Survey of Tidal Lands

Year: 1981 - 1983

Location: Indonesia (Sumatra, Kalimantan, Papua)

Client: The World Bank - Directorate General of Public Works
Directorate Swamps (P3S)

Main project features: Site selection of areas suitable for resettlement of population from Java and Bali to tidal regions on the three major outer islands

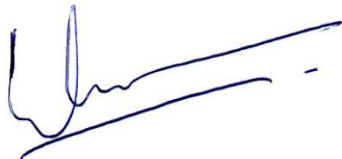
Positions held: Remote Sensing Specialist

Activities performed:

- Interpretation and obtaining ground-truth of all Landsat images, Synthetic Aperture Radar (SAR) imagery and aerial photographs of Indonesia's coastal and semi-coastal swamp areas with a total area of about 10 million ha (approx. size of UK landmass)
- Set up a low-cost image preparation laboratory based on Diazo and photographic techniques for the production of imagery to be used in the field for navigation and interpretation check
- Field work in Papua (formerly Irian Jaya) in Mamberamo, Asmat, Bird's Head regions, Kalimantan and Sumatra tidal swamp lands
- Training of Indonesian counterparts in satellite image and air photo interpretation techniques

13. Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience. I understand that any wilful misstatement described herein may lead to my disqualification or dismissal, if engaged.



Wijnand Durk LANGERAAR

Signature of staff member or authorised representative of the staff

Date: 1 April 2015
Day/Month/Year

Full name of authorised representative:



UNIVERSITAS RHENOTRAIECTINA

L.S.

FACULTAS DISCIPLINARUM MATHEMATICARUM ET PHYSICARUM

Iuveni ornatissimo *Wijnand Durk Langeraar*

nato die *24* mensis *augusti* anno *1948* in urbe *s. Gravenhage*

EXAMINE DOCTORALI rite absoluto *geologiae*
cuius examinis partem principalem obtinebat

sedimentologia
partes secundarias autem
geologia structuralis et usui applicata
ius metallicum
ius summos petendi in hac Facultate honores concedit;

idque propter egregia eius merita CUM LAUDE.

Datum Traiecti ad Rhenum

die *26* mensis *septembris* anno *1977*

Facultatis ab actis

Facultatis decanus

Ex albo Facultatis no. *0322*



Universitas Maastricht

Facultas Disciplinarum

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