Personal Data

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| 1. **Surname: ZHOU**
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| 1. **Name: PETER PINAS**
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| 1. **Nationality: ZIMBABWEAN**
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| 1. **Date of birth: 9-JUNE, 1954**
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| 1. **Marital status: MARRIED with 3 Children**
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1. **Educational Background**

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| **Year Awarded** | **Degree** |  |
| 1995 | D Phil Applied Geophysics | University of Zimbabwe in collaboration with Clausthal University in Germany |
| 1982 | MSc Exploration Geophysics | University of Zimbabwe |
| 1977 | BSc Physics (Hons) | University of Rhodesia |

1. **Language Skills:**

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| **Language** | **Speaking** | **Writing** | **Reading** |
| English | 5 5 5 |
| Zulu | 3 2 3 |
| Setswana | 2 1 1 |

1. **Member of Professional Bodies:** Lead author (SAR2-AR5) of Intergovernmental Panel on Climate Change
2. **Other Skills:** Computer literacy, etc.) MS word, excel/spreadsheet,

PowerPoint, Energy **modelling**

1. **Present position:** **Director/Chief Consultant- specializing as an** energy, water, transport, tourism, climate change/environment, M&E, institutional and capacity building geotechnical expert**.**
2. **Years with the Company: 25 years (overall years of experience 38 years)**
3. **Key qualifications**

Dr. Peter P. Zhou is an experienced consultant and researcher spanning infrastructure sectors of **energy,** water, transport, tourism,and cross cutting issues of climate change, gender, environmental/geotechnical. M&E aspects with over 35 years working experience in sub-Saharan Africa.

Since 1993, he has served as the Director of EECG Consultants Pty Ltd in Botswana; a Centre specializing in Energy, Environment and Climate Change Research activities.

Dr Zhou has successfully brought to completion over 100 consultancy and research projects funded by various **development agencies** (World Bank, USAID, UN agencies (UNEP, UNDP, UNFCCC, UNITAR, IHDP, UNIDO), GTZ/GIZ, CIDA, Sida, DANIDA, EC/EU, DFID, Australian Aid through DFAT and African Development Bank), **African host governments** (Botswana, Ethiopia, Lesotho, Ghana, The Gambia, Zimbabwe); **Utilities** (Eskom of South Africa, Nampower of Namibia, Botswana Power Corporation) and private sector entities (fertilizer company-FerroGrow, Base metal company (BCL Ltd), Hotel industry (Cresta), Research and Technology Organizations-Botswana (RIPCO); Global Village Energy Partnership Int; Southern African Development Community (SADC). In many of these projects he held the position of Team leader as reflected in his experiences below.

He has accumulated experience in baseline/scoping studies, market assessment and feasibility studies for projects, policy/strategy/ action plan/programme formulation, project development, project management, and skills and institutional development. He has skills for undertaking consultancy/research projects at country, regional and global level and preparing both research proposals and project reports, has experience in workshop organization, facilitation, rapporteuring and proceedings compilation. .

He has extensive knowledge of development issues in the sectors of energy (power sector, petroleum and gas, biomass energy, renewable energy and energy efficiency), water development and management strategies, agriculture and energy nexus, forestry management; transport (road, Rail, aviation studies), environment resource and impact assessment and management, technical assistance; project evaluation organizational audits and repositioning/restructuring.

He is versed with various M&E tools including logical framework, result based monitoring, impact assessment, outcome mapping, DAC criteria . To that effect he has developed M&E frameworks and conducted Mid term reviews for projects, programmes and institutional restructuring for individual organizations, countries and regional economic commuinities

He has been extensively involved in climate change activities encompassing mitigation, Vulnerability and Adaptation, Greenhousegas Inventories; Clean Development Mechanism, Global Environmental Facility and USIJ project development, carbon capture and storage assessments and consultations, supporting implementation of national climate change policies , developing country and regional grid and sector emission factors, and monitoring vulnerability to climate change for the power sector.

He is a long time resource person in the Intergovernmental Panel on Climate Change (IPCC) as lead author on energy policy and measures and was part of the IPCC Lead authors that were awarded the Nobel Peace Price in 2007. He has been involved in the United Nations Framework Convention on Climate Change (UNFCCC) Technology Transfer assignments, Clean Development Mechanism (CDM) activities and Performance Monitoring and Evaluation of UNFCCC frameworks.

Apart from funded research projects, he has been involved in academic work examining PhD and MSc theses from South African universities; and reviews of project development documents and journal papers for publications;

 The details on projects experience below provide the evidence.

**Specific experience in the region for projects (excluding workshops)**

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| **Country** | **Period** |
| Angola | 2013 |
| Zimbabwe | 1982- 2005; 2008, 2011, 2013, 2017 |
| Botswana | 1991-2013, 2015, 2016, 2017 |
| Ethiopia | 2000-2000; 2010-2012 |
| Kenya | 2012, 2014/15, 2016 |
| Mozambique | 1997; 2004; 2005; 2007; 2008; 2009; 2010, 2011, 2012, 2015, 2017 |
| Uganda | 2000-2000 |
| Ghana | 2000, 2008 |
| The Gambia | 2000-2000 |
| Lesotho | 1997-1997; 2008, 2012, 2017 |
| Namibia | 1997-1997; 2007-2008; 2010, 2013, 2016, 2017 |
| Mauritius | 1996-1998, 2011, 2017 |
| South Africa | 1995-2006; 2008, 2009-2010; 2011, 2012, 2013; 2014; 2015, 2016 |
| Swaziland | 2007-2008; 2009, 2012, 2013, 2017 |
| Zambia | 1994-2007, 2012, 2013, 2015, 2017, 2018 |
| Tanzania | 2007-2008, 2011, 2013 |
| Malawi | 2008-2008, 2013, 2015 |
| Ivory Coast | 1994 |
| Senegal | 2009 |
| Niger | 2003 |
| Germany (short term assignments | 1999-2000; 2002-2007; 2008-2009 |
| Denmark- expert visits | 1994-1997; 2000 |

Workshop/conference visits to over 50 countries worldwide

1. **Professional experience (divided into Energy, Climate Change, Water and Other Projects)**

| **Period** | **Location** | **Employer** | **Position** | **Description** |
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| May –June 2018 | Zambia | **AECOM Spain****Tristan Goldthorpe**Project Manager Project Management DivisionM +34 647 925 044D +34 91 919 7858 tristan.goldthorpe@aecom.com | Capacity Building Expert | Developing a capacity Building Programme Estimate for an EU Project on “**Enhancement of Policy, Legal and Regulatory Environment and Capacity Building for Renewable Energy and Energy Efficiency”** under the programme EU **Increased Access to Electricity and RE Production.** |
| January 2018 –July 2018 | SADC Region | **Dimitris Papastefanakis**Key Expert Energy EfficiencyThe EU 's Technical Assistance Facility (TAF) for the Sustainable Energy for All (SE4ALL) initiative Eastern and Southern AfricaEmail       d.papastefanakis@gmail.comSkype       Papastefanakis.Dimitris1Mob         +30 69 45 492545 | Team Leader and Policy, economy and planning expert |  **Development of the SADC Industry Energy Efficiency Programme.** Leading the actual development of the SIEEP basing on the scoping findings conducted and approved in 2017. The project entails fleshing out the actual projects to be conducted as part of the project, allocating roles & responsibilities; and costing the programme. |
| Oct 2017/Feb 2018 | SADC region | Martin BurianCompetence Centre for Energy and ClimateGFA Consulting GroupPhone: +49 (40) 6030 6805Fax.: +49 (40) 6030 6899E-mail: martin.burian@gfa-group.de | Short Term Expert | **Reactive Power Compensation assessment study in Southern and East Africa.** Assessment of energy efficiency potential related to reactive power compensation among maximum demand customers and related energy, cost and GHG savings to inform creation of a RE/EE financial mechanism. Expert was working on the Zimbabwe case study |
| Sept/October 2017 | SADC region | Martin BurianCompetence Centre for Energy and ClimateGFA Consulting GroupPhone: +49 (40) 6030 6805Fax.: +49 (40) 6030 6899E-mail: martin.burian@gfa-group.de | Short Term Expert | **Assessing Financial barriers to Implementation of the RE/EE programs in the SADC region** Analysing various financing mechanisms and barriers to implementation of RE/EE projects in selected SADC countries-South Africa, Botswana, Namibia and Zambia. This entails consultations with power utilizes, energy regulators and Independent Power Producers (IPPs). |
| March -Sept 2017 | SADC Region | **Dimitris Papastefanakis**Key Expert Energy EfficiencyThe EU 's Technical Assistance Facility (TAF) for the Sustainable Energy for All (SE4ALL) initiative Eastern and Southern AfricaEmail       d.papastefanakis@gmail.comSkype       Papastefanakis.Dimitris1Mob         +30 69 45 492545 | Team Leader and Policy, economy and planning expert |  **Development of the SADC Industry Energy Efficiency Programme.** Leading the scoping and assessment study for the design and development of the SIEEP. The exercise entails assessment of current EE practices, measures and gaps and barriers and seeking opportunities for the SIEEP programme. The study will also recommend actions and guidelines for developing the SIEEP. |
| Oct 2016- June 2017 | Africa | Alejandro MorenoEnergy SpecialistThe World Bank+1 (202) 473-9360 | UNECA Consultant | Global Tracking Framework (GTF) for Economic Commission for Africa on Sustaina­ble Energy for All (SE4All)/Sustainable Development Goals (SDG) #7 goalsDevelopment of UNECA Global Tracking Framework profiles and reports under Sustainable Energy for All (2017) for Africa region-involving energy access, energy efficiency, renewable energy for the regional profile. For the regional report enabling environment, financial flows and data collection, validation and management systems were also analyzed for the countries |
| April-October 2016 | SADC Region | Ms Regine ReuterRecruiting SpecialistGFA Consulting GroupRecruiting DepartmentTel.:  +49 (40) 60306-121Fax.: +49 (40) 60306-129E-mail: regine.reuter@gfa-group.deSkype: regine.reuter.gfa-group | Team Leader | Technical assistance to develop a consultation process and communication strategy for the establishment of a SADC **Renewable Energy and Energy Efficiency Strategy and Action Plan** in the frame of the EU TAF for SE4ALL initiative. |
| January 2016- Dec 2016 | East and Southern Africa | Cardno Emerging Markets (Australia) Pty LtdLevel 4501 Swanston StreetMelbourne VIC 3000AustraliaPhone: +61 3 9819 2877Fax: +61 3 9819 4216emergingmarkets.australia@cardno.com[www.cardno.com/emergingmarkets](http://www.cardno.com/emergingmarkets)Ms Cleo Chadwick cleo.chadwick@evolvingways.com.au | Mentor for Infrastructure Skills for Development- Power sector and Transport Sectors | **Infrastructure Skills for Development (IS4D):** Phase 2. Involved in the planning of the IS4D2 with IS4D Management (January 2016-April2016). April to December 2016 Support development of skills for project managers involved in implementation of infrastructure development projects under Programme for Infrastructure Development for Africa (PIDA) in East and Southern Africa. Skills development was through mentoring the project managers. The project was undertaken in collaboration with NEPAD with support from the Australia-Africa Partnership Facility. The mentoring process employs a tool called Action Learning with 6-7 mentees that are working on a diverse range of energy and road projects. |
| Oct 2015-August 2016 | Botswana | ECA-UK/World Bank | Local Renewable Energy Expert | **Botswana Renewable Energy Strategy:** Stakeholder engagement, assessment of off-grid renewable energy projects, policy/legal/regulatory framework analysis and recommendations, development of Roadmap for scaling up renewables and investment programme. Financing options, project packaging and procurement strategy for various sizes and types of projects, preparation of bidding documents for selected set of short term investment projects. |
| Aug-2015- March 2016 | Selected countries in Asia and Africa | DTU - Dept. of Management Engineering (Formerly UNEP Centre at Risoe)UN City,  Marmorvej 51, DK2100 Copenhagen Ø DenmarkEmail: goma@dtu.dk Direct: +45 4533 5271Mobile: +45 3045 5748[www.unepdtu.org](http://www.unepdtu.org/)Gordon A. MackenzieHead of Programme, Cleaner Energy Development | Sole Consultant |  **Assessing the outcomes of the Global Network on Energy for Sustainable Development (GNESD).** Undertake outcome mapping on policy changes, adoption and implementation that have taken place during the implementation of GNESD. The assessment was conducted in all the countries and regions (Africa- 3 countries, Asia- two countries, Latin America 2 countries) for the period 2003 to 2015. |
| July 2015-October 2015 | Selected SADC and EAC countries-  | Danish Energy Management & Esbensen A/S - a part of Danish Management GroupVestre Kongevej 4-6, 8260 Viby J. DENMARKTlf:: +45 87 340 600 / Fax: +45 87 340 601 E-mail: arh@dem-esb.dk / Web: [www.dem-esb.dk](http://www.dem.dk/) Mobile: + 44 78 74 74 59 15 | Regional Expert | **Mid-Term Evaluation of the Environment and Energy Partnership** Southern and East Africa (EEP): Mid Term Review of- a challenge fund provided by Finland, Austria and UK governments to support start-up project development and scale-up of Renewable Energy and Energy Efficiency projects in 13 East and Southern African countries. Visited project to evaluate performance of the supported projects-completed, on-going, discontinued- largely RE off-grid projects in Botswana and South Africa. |
| Feb 2015- Nov 2015 | East and Southern Africa | Cardno Emerging Markets (Australia) Pty LtdLevel 4501 Swanston StreetMelbourne VIC 3000AustraliaPhone: +61 3 9819 2877Fax: +61 3 9819 4216emergingmarkets.australia@cardno.com[www.cardno.com/emergingmarkets](http://www.cardno.com/emergingmarkets)Ms Cleo Chadwick cleo.chadwick@evolvingways.com.au | Energy Sector Specialist Mentor for Infrastructure Skills for Development | **Infrastructure Skills for Development (IS4D):** Support implementation of infrastructure development projects under Programme for Infrastructure Development for Africa (PIDA) through mentoring project managers in East and Southern Africa. The project was undertaken in collaboration with NEPAD with support from the Australia-Africa Partnership Facility. The mentoring process employs a tool called Action Learning with 7 mentees that are working on a diverse range of energy and road projects. |
| June-Oct 2014 | Africa | UNIDO on behalf of the UNECAMs Smeeta FOKEER, <S.Fokeer@unido.org> | Principal Researcher | Developing a UNIDO Internal publication on Inclusive and Sustainable Industrial Development (ISID) considering RE/EE energy projects, financing options and the necessary support systems to promote ISID. |
| Feb –Feb 2015 | Kenya | HCL on behalf of EU BizCLIMNick CrazeHCL ConsultantsPhilopappou 3611741 AthensGreeceTel: + 30 210 924 0885Fax + 30 210 924 0769E-mail: office@hcl-consultants.comWeb Site: [www.hcl-consultants.co](http://www.hcl-consultants.com/) | Team Leader | **Development of Investment Prospectus for Sustainable Energy for All in Africa**: Support to Kenya to develop its SE4ALL action plan and investment prospectus" . This culminated in priority SE4ALL projects for investment (mainly renewable energy-both grid and off-grid) and reforms to meet the SE4ALL goals of for the country. |
| July- September 2013 | COMESA/EAC/SADC | DFID- TMSASharon Brown, WYG International Limited, Geneva Building, Lake View Drive, Sherwood Business Park, Annesley, Nottingham, NG15 0ED, UK (email: sharon.brown@wyginternational.com) | Energy and climate change Reviewer | Undertaking **Mid Term review of the Trade Mark South Africa** programme supported by DFID, focussing on energy and climate change interventions- national and Transmission interconnectors. |
| May-June 2013 | Zambia and SADC | EU DelegationSilvia ProdiItaltrendvia Gramsci 56I-42100 Reggio EmiliaTel: +39 0522 516401Fax: +39 0522 511113[www.italtrend.it](http://www.italtrend.it/)  | Team Leader and Renewable expert | Undertaking **an asessment and gap analysis of the energy sector in Zambia in** consideration of prioritization of both national and regional investment opportunities by EU under **EDF 11** and other funders to augment energy security, energy access., enhance private participation and be a hub for electricity trade in the SADC region. The project included identoification of RE energy projects- regional and national grid, national minigrid and off-groid projects. |
| April to November 2013 | Africa | UNIDO on behalf of the UNECAMs Smeeta FOKEER, <S.Fokeer@unido.org> | Energy Expert | Development of the 5th Sustainable Development Report for Africa SDRA V **Energy and Industry Chapters** focussing on **inclusing green growth**. The report presents opportunities and challenges that can be translated into a strategic agenda for developing the energy sector for Africa. The assignment was commissioned by UNECA and apointed UNIDO to deliver the energy and industry chapters for SDRA V report. The project had a focus of RE/EE projects implementation. |
| Oct 2012- May 2013 | SADC | SADC Secretariat**Mr Remigius Makumbe**Director of Infrastructure and ServicesSADC Secretariat, Gaborone, BotswanaTel +267361194 or 7Mobile =267-71444655Rmakumbe@sadc.int | Regional Infrastructure Expert | Mid Term review (2005-2010) of the SADC Regional Indicative Strategic Development Plan (blue print for all SADC interventions towards eliminating poverty and enhancing economic development).My role was focussing on all the **infrastructure sectors** that **include energy, water, transport, tourism, ICT and meteorology** assessing based on DAC Criteria of relevance, effectiveness, efficiency, sustinability, impacts of the past implementation and refocussing the RISDP going another 10 years (2010-2020). For energy both transboundary interconnections and RE for poverty reduction were part of the review and recommendations. As part of this exercise for SADC countries, extensive consultations were also made witrh the Department of Energy in Swaziland. |
| Nov 2012-Feb 2013 | South Africa | GFA Envest of Germany under KFW Contract**Jose-Luis Bobes**Team-LeaderFinancial Systems DevelopmentS.A. Office at IDC: +27 11 269 3578 S.A. Cell: +27 78 399 2511 Tel.: +49 (40) 60306-193Fax.: +49 (40) 60306-399 | Consultant | Developing a Excel based Tool for assessment **of Renewable and energy efficiency projects** for funding under KFW Credit line . The credit line is being operated by the Industrial Development Corporation of South Africa. The Tool derives energy saved or substituted, carbon emissions avoided/saved and financial viability and thois assessment forms part pof the evaluation criteria for qualifying for credit financing. |
| May 2012-October 2012 | SADC | UNDP-Regional Office-Africa**Gregory Woodsworth**Energy Policy AdvisorUNDP Regional Service CentreJohannesburg, South Africagregory.woodsworth@undp.orgPhone: +27 (0) 11 603-5113Mobile: +27 (0) 72 574 3939 | Regional Consultant | Deverlopment of **Sustainable Energy for All** -Gap analysis reports and Action Plans for Botswana and Lesotho and development of a synthesis report for SADC region and contribute to all Africa synthesis Report. Championed developed of proposed guidelines for development of SE4ALL Action Plans for African countries. The country SE4ALL Gap analysis involved identification of RE/EE and energy access opportunities and potential interventions. |
| Jul2012-Oct 2012 | SADC- Angola, Swaziland, Zambia | IRENA-International Renewable Energy Agency**Dr Safiatou Alzouma**Regional Programme Officer (Africa )IRENA, C 67 Office Building, Khalidiyah (32nd) Street | P.O. Box 236 | Abu Dhabi, United Arab Emirates | Tel: +97124179071 | Mob: +971506411584 | SAlzouma@irena.org | [www.irena.org](http://www.irena.org/)  | Regional Project manager | Support countries to develop their **Renewable Energy Readiness and Action Plans** for investment support. Directly inviolved as a Regional Consultant to support and prepare RRA reports for Zambia, Swaziland and Angola, working with 2 other Regional Consultants, national consultatnts and energy stakeholders in the participating countries. The project involved identification of RE action areas that can attract funding in the study countries. |
| March 2012 | SADC/EAC | Southern Africa Trade Hub funded by USAID and Regional Electricity Regulators Association of SADC.Mr Romance SampaBox 602090, Gaborone, Botswana | Renewable Energy ExpertCo-Consultant | Preparation of training modules and training of SADC Energy Regulators and Utility officers.on **Renewable energy barriers and opportunities, policy/regulatory/institutions options for deployment of RE, strategic frameworks for RE deployment and Financing options for RE projects.**  |
| Mar-Aug 2012 | SADC/EAC Regions | Ministry of Foreign Affairs Finland and Development Bank of South Africa**Anne Tarvainen**Counsellor (Natural Resources and Energy)Embassy of Finland P.O Box 443, 628 Leyds Street, Pretoria 0001, Republic of South AfricaTel: +27 (0)12 343 0275 ext. 212Cell: +27 (0)82 449 9938Fax: +27 (0)12 343 3095 | M&E Expert and Team Leader | Development of a **Result Based Monitoring and Impact Assessment Framework** for the Energy and Environment Partnership (EEP) programme in SADC and EAC countries. This is a programme covering 13 countries in Southern and East Africa. The project also assessed the results being achieved by the already supported projects largely **off-grid projects involving solar, biofuels, wind, biomass technologies (charcoal production, biogas, gasification).**  |
| Oct 2011-Aug 2012 | SADC Region | SADC SecretariatMr Freddie Mothlathledifmothlathledi@sadc.int | Energy Expert | Development of the **Energy** infrastructure sector strategic framework component of the **SADC Regional Infrastructure Development Master Plan** mainly covering the Power, petroleum & gas, coal, nuclear and **renewable energy** subsectors. The plan includes energy projects that require funding. |
| Oct-Dec 2011 | Tanzania | **Indevelop**Stockholm, SwedenJessica Rothman PMP[jessica.rothman@indevelop.se](http://email15.secureserver.net/webmail.php?login=1) | Regional Expert | **Mid-term Review of the ‘Capacity Development Project of the Rural Energy Agency, Tanzania’ supported by Sida**. The assessment applied the OECD Development Assistance Criteria (DAC): efficiency, effectiveness, relevance, impact, sustainability and cross cutting issues. The review involved visits to some of the funded projects (solar/wind) and rural electrification grid and recommended how off-grid systems can be sustainable. |
| Jul 2011 to Oct 2011 | East and Southern Africa | **FCG International Ltd** Riikka OtsamoOsmontie 34; 00101 Helsinkiriikka.otsamo@fcg.fi | Regional Consultant | Undertake a **midterm review** of the **Renewable Energy and Energy Efficiency Partnership Programme being** supported in 8 of the East and Southern Africa region with support from the Governments of Finland and Austria. The MTR was undertaken at the same time as in the MEKONG Region in Asia. The assessment also applied the DAC Criteria and largely involved interaction with project developers and how the EEP programme was performing and governed. |
| May 2011- Aug 2011 | East and Southern Africa | World Wildlife Fund KenyaDr. Taye TeferiConservation Programme DirectorWWF Eastern Africa Regional Programme  OfficeTTeferi@wwfearpo.org | Co-Consultant | **Preparation of a WWF energy strategy for the East and Southern African Region.** The strategy has been adopted and is being implemented and contained both projects and reforms towards reaching the WWF 50% RE by 2050. |
| May 2011-Janaury 2012 | SADC region | SADC SecretariatMr Freddie Mothlathledifmothlathledi@sadc.int | Team Consultant/coordinator | Preparation of SADC **Renewable energy strategy and action plan** involving situational analysis, techno-economic analysis, environmental/social impact analysis, project investments (RE/EE) and financing options, the strategic component with Vision, strategic objectives, targets and activities, and M&E frameworks. |
| Aug-2009 Dec 2010 | Global but focusing on Africa | UNEP through ECN of Netherlands Dr Heleen de Coninck  deconinck@ecn.nl | Team member | **Contribution to a Renewable energy Report for the UNEP Green Report** -Analysis of renewable energy solutions for poverty alleviation; investment opportunities and financing mechanisms in developing countries. |
| 2009-2012 | Africa RECS- SADC  | EU through UNEP Paris Dr Gordon MackenzieUNEP Centre; RISOE National Labgoma@risoe.dtu.dk | SADC coordinator  | **Capacity Needs and Mobilization Action for Africa -Identification** of capacity needs for engagement of SADC energy stakeholders in the context of the **Africa-EU Energy Partnership;** assisting with capacity building through development of research studies, stakeholder consultations and workshops. |
| September 2009 |  South Africa | Dr Gordon MackenzieUNEP Centre; RISOE National Labgoma@risoe.dtu.dk | Training participant | Participated in a ODI Outcome mapping training workshop for 2 weeks |
| 2008-2009 | SADC | SADC SecretariatMr Freddie Mothlathledifmothlathledi@sadc.int  | Lead Consultant | **Development of Petroleum and Gas Association (REPGA) for SADC** -Development of an operational programme (including infrastructure at upstream, midstream and downstream), institutional framework, funding mechanism and constitution for the REPGA |
| 2008 | Botswana | GTZ**Anne Rehner**anne.rehner@gtz.de | Team Leader and Lead Consultant | **Biomass Energy Strategy** for Botswana Developing a strategy for biomass in Botswana-with situational analysis, interventions, cost benefit analysis, environment and social impact and risk analysis, policy/legal adjustments, institutional partnerships, Action Plan (biomass projects), Communication strategy and M& E framework |
| 2007-2008 | SADC | Global Village Energy PartnershipDr Wendy Anecke+27844473977 | Sole Consultant | **M&E Facility for Energy Projects** -Develop a business Plan for the establishment of a Monitoring and Evaluation Facility for Energy projects in Southern Africa involving consultations with energy and donor stakeholders in SADC countries. Undertook follow-up workshops as resource person on principles and experiences with M&E systems for energy and development. |
| 2007-2008 | Sweden | Sida/Orgut Jenny Larssonjenny.larsson@orgut.se | Team consultant | **Energy-Climate Action Plan** -Developing an Action Plan for Sida on energy and Climate- stipulating key energy interventions and adaptation measures for countries in Sub Saharan Africa (Zambia, Uganda) and East Europe |
| 2007 | Botswana | Ministry of Minerals, Energy and Water ResourcesMr Boiki Mabowe+bmabowe@gov.bw | Team Leader | **Biofuels Feasibility Study-production and use** -Analysing markets, land availability and suitability, energy crop type analysis, feedstock production modalities, biofuels production technologies, environmental assessment, and economics, Implementation Plan and M&E Framework |
| 2007 | SADC region | SADC/ East and Southern African Institute of management Prof. Joseph Mumba (ESAMI)Tel(Office): +255 27250 8383Cell: +255 786 704 661 | Lead Consultant | **Impact assessment of SADC rural energy planning and environment** Programme (REPEM)-Evaluating impact of the REPEM programme on behalf of DGIS and redesigning a new reoriented programme to improve energy access in rural areas of Southern Africa. The new programme was endorsed by SADC and due for implementation. This involved assessing energy interventions in Swaziland, Mozambique, South Africa and Tanzania. |
| 2006 | Botswana | ENERGIA/ BOTECMs Nozipho Wright.+267-314161 | National Team Member | Gender and Energy Audits -Assessed the gender-energy related planning baseline information and statistics for Botswana and compiled the whole country report on Gender and Energy that was submitted to Energia. |
| 2007 | Botswana, Mali, Ghana, Senegal, Tanzania, Zambia  | EU-Energy Initiative with UNEP Risoe and ECN- Netherlands Dr Gordon MackenzieUNEP Centre; RISOE National Labgoma@risoe.dtu.dk | Short term Consultant | **Development and Energy in Africa -**Synthesis report on energy policy interventions and impacts on development in the six countries of Botswana, Ghana, Senegal, Mali, Zambia and Tanzania. |
| 2005-2007 | Botswana | EU-Energy Initiative with UNEP Risoe and ECN- Netherlands Dr Gordon MackenzieUNEP Centre; RISOE National Labgoma@risoe.dtu.dk | National Expert | Development and Energy in Africa- Analysis of energy policy interventions and impacts on development. |
| 2005-2007 | Botswana | Danish Energy Management of Denmark for DANIDAJesper VauvertJesper.Vauvert@dem.dk | Energy Management expert | **Energy Efficiency and Conservation in buildings** – Assessment of operation and maintenance of energy equipment in government buildings (clinics, schools, policy offices, line ministries). Assessment of energy management (EM) opportunities and Development of EM manuals and training. Contributed to development of EE strategy. |
| 2005 | Botswana | Cresta Group of HotelsMr T. Makaya, MD+267-71302036 | Project designer and Energy expert | **Energy and water audits** in Hotels -Auditing energy and water consumption and analysing measures for improved efficiency. This assessment provided the investment required by the hotel to implement the mapped EE measures and the benefits realized. |
| 2004 | SADC Region | International Institute of Education- Energy Group- USA | Team Leader on Energy | Energy and the Media onEnergy for the PoorEnergy Reforms Energy Investments Prepare resource papers and presented at 1-week workshop of journalists. |
| 2003-2004 | Botswana | World BankMr Robert Baconrbacon@worldbank.org | Project Leader and Principal Consultant | **Energy Use, Energy Supply and Energy Reforms** and the Poor -Household and institutional surveys to determine impact of reforms on energy use and supply in Botswana (other countries were Honduras, Senegal and Ghana). |
| 2003 | Botswana | Ministry of Minerals, Energy and Water Affairs-BotswanaMr Keneth Kerekangkkerekang@gov.bw | Project Leader and Principal Consultant | Development of **Energy Plan and Policy** for Botswana ( with component for recommending Energy Reforms and Regulation Development of the current Botswana Energy Master Plan and the first draft white paper on energy policy.  |
| 2002 | Botswana | Rural Industries Promotion Company of BotswanaMr Morei +267-71303351 | Project Leader and R & D Consultant | Evaluation of an Energy Research and Development -Organization Evaluation of current performance and redesign of a more effective R&D programme, institutional structure and financial management |
| 2001-2002 | Africa | University of Cape TownProf Harald Winkler | Researcher | **Solar Energy With a Focus on Photovoltaics in Africa** -Analysis of government and Development Agency supported solar PV programmes in a number of African countries and regions. The results culminated into a book chapter. |
| 2001 | Botswana | Government of Botswana Mr Keneth Kerekangkkerekang@gov.bw | Team Leader and Energy Expert | **Fuelwood Management Practices-** CBNRM Pilot Project design Participatory and questionnaire surveys for communities and design of a pilot project for Government demonstration |
| 2001 | Botswana | Energy Research Centre- University of Cape Town Mr Yaw Okese0027788026430 | Co-author | Preparation of Synthesis Report on Botswana’s urban and rural energy Synthesis of surveys results- emanating from separate rural and urban household and institutions studies on energy needs and requirements. |
| 2000-2001 | Botswana | Government of Botswana Mr Keneth Kerekangkkerekang@gov.bw | Project Leader and Principal Consultant | **Rural Energy Needs & Requirements** Energy Supply and Demand Surveys and Energy Planning- All Energy Sectors. The study involved surveys and forward planning employing the LEAP Model. |
| 2000-2001 | Botswana | Government of Botswana Mr Keneth Kerekangkkerekang@gov.bw | Team Leader and Principal Consultant | **JICA PV Master Plan Study**- Socio-economic Study to determine the demand for solar PV systems and services in rural Botswana. |
| 1999 | Botswana | Government of Botswana Mr Keneth Kerekangkkerekang@gov.bw | Team Leader and Principal Consultant | **Evaluation of Rural Electrification programme** -Evaluated the Grid Rural electricity collective scheme and its impact on connections. We also redesigned the loan scheme parameters which when implemented resulted in increased connections. That recommendation is the one still in operation now.  |
| 1998 | Botswana | IUCNMr Ruud Jansen | National Consultant | **Energy and Water Resource Management by Business Sector** -Assessment of environment and resource management in the large, medium and small enterprises on Botswana, with a view to encourage good practice. |
| 1997 | Botswana | ECN/SHELL of Netherlands | Sole Consultant | **Market Potential assessment for Solar Home systems** -Demand assessment for solar PV systems in selected parts of Botswana, before Solar International started business in Botswana |
| 1996 | Botswana | Government of Botswana Mr Keneth Kerekangkkerekang@gov.bw | Team Leader and Principal Consultant | **Solar PV Rural Electrification** in 3 villages- **Feasibility Study** to assess potential market for solar PV systems before rolling out a national PV electrification programme. |
| 1995 | Africa | United Nations FAODr Gustavo Best | Short Term Consultant | **Energy and Agriculture** Nexus- Updated a UNFAO report on baseline situation of energy and agriculture in six African countries and designed a forward looking programme. I also organized a side event at the solar ISES summit to present the new programme. |
| 1994-95 | Botswana | African Development Bank | Team Leader/Principal Consultant | Energy-Environmental Interactions- Assessed the impacts of energy systems on the environment, and on health and safety. |
| 1993-94 | Botswana | African Development Bank | Team Leader/Principal Consultant | Domestic Energy Consumption-Urban and Rural Conducted household energy Surveys to assess energy fuels use and supply chains and impacts on the environment, health and safety. There was also an element of energy planning. |
| 1991 | Zimbabwe | Biomass Users NetworkDr R S Maya00263912963683 | Sole Consultant | Biomass Integrated Energy development and utilization- Made an analysis of the infrastructure in place for integrating piggery, farm fish farming and market gardening |
| 1988 | Zimbabwe | Zimbabwe Government Biomass Users NetworkDr R S Maya00263912963683 | Sole Consultant | Small Scale Coal development assessment- Assessment of the potential for small scale coal mining along the lines of China-considering cost benefit analysis and resource availability. |
| 1984 | Zimbabwe | United Nations Development Programme Biomass Users NetworkDr R S Maya00263912963683 | Sole Consultant | Technical Cooperation among Developing Countries Information Referral System Survey -Assessment of the capacity of tertiary institutions to manage information on agriculture and energy issues. |
| **CLIMATE CHANGE PROJECTS** |
| Nov 2016- March 2018 | Southern African countries | Martin BurianConsultantCompetence Centre for Climate and EnergyGFA Consulting GroupEulenkrugstraße 8222359 Hamburg, Germany+49-40-60306-805 (Tel)+49-40-60306-899 (Fax)martin.burian@gfa-envest.com | Team Consultant | **Revision of the grid emission factor for Southern African Power Pool (SAPP) regional grid** to assist investments into carbon projects that supply the SAPP Grid and to promote investments into Renewable energy and energy efficiency.There will be a follow up to develop a financial scheme for supporting carbon reduction projects targeted at the African Development Bank. |
| July –October 2015 | Selected SADC countries- Zambia, Mozambique and Malawi | Ms Varsha Ramballey**Managing Director****WYG ( Southern Africa)****NB** *we have moved office to:*Ground Floor, Block G,  Hatfield Gardens333 Grosvenor Street, Pretoria, South Africa  0083 P.O. Box 2851, Brooklyn Square, 0075 Business Mobile : +27 (0)82 858 8013 Fax : +27(0)86 524 4460 Email : varsha.ramballey@wyg.com   | Team Leader | **A scoping study for a non-renewable resources, climate change and environmental programme in Southern Africa:** Assessing impacts of mining, oil/gas sectors on climate change, environmental degradation and impacts of climate change on the sector. Propose a climate compliance regime in form of a carbon offset standard. |
| Nov 2014-July 2015 | South Africa | Mr Jongikaya WitiDepartment of Environmental Affairs; Pretoria. South Africa**jwiti@environment.gov.za**Tel 0027839919913 | Expert 2 | Measurement of **emission factors at the fossil fuel based power stations in South Africa** to support development of reliable National GHG Inventory. |
| Dec 2013-Oct 2015 | South Africa | Cardno Emerging Markets of UK under a DFID supported ProjectMr George MukkathPhone +44 1844 216500  Direct +44 1844 267024  Mobile +44 7889 001954    Address Oxford House, Oxford Road, Thame, Oxon, OX9 2AH, UKEmail george.mukkath@cardno.uk.com | Team Leader | **Providing technical services for the Implementation of the National Climate Change Response Policy of South Africa.** This was through selection of priority projects to implement, developing project priotization criteria, Needs Assessment studies for identifying projects, undertaking procurements for technical services from service providers (from development of TORs, floating bids, evaluation criteria, information session, supervising service providers, liaising with Department of Environmental Affairs (beneficiary organization), tracking delivery of project results, coordination meetings with DFID/DEA and reports on the project to DFID. |
| 2012-2014 | South Africa | Eskom of South AfricaMs Maria Coutomaria.couto@eskom.co.za | Main consultant | Assessment of climate change impacts in the power sector with reference to Eskom generation, transmission and distribution assets. This will culminate into development of adaptation measures and projects for financing through the Adaptation Fund. |
| 2012-2013 | South Africa | Industrial Development Corporation and KFW of Germany through GFA- Envest | Consultant | Development of an assessment and monitoring Tool to appraise Green projects being funded under a credit line supported by KfW. |
| 2011-2014 | Global  | IPCC Technical Support UnitIPCC Travel, e-mail: IPCC-Travel@wmo.int, Fax: +41 22 730 80 25 | IPCC Lead Author under WGIII Mitigation. | Contributing to Chapter 5 on Drivers, Trends and Mitigation providing a developing world perspective on drivers that have shaped the transport, buildings, industry and human settlements.. |
| 2010-2014 | Global | IPCC Technical Support UnitIPCC Travel, e-mail: IPCC-Travel@wmo.int, Fax: +41 22 730 80 25 | Programme Committee Member | Spatial Planning and Climate Change Mitigation and Adaptation with my involvement in Disaster Preparedness and Prevention ; and Meeting transport and energy needs in low-income countries that are resilient to climate change impacts (and that minimize greenhouse gas emissions) |
| May 2011- June 2011 | SADC Region | UNEP-Risoe/ German GovernmentMartin BurinGFA ENVEST GmbHMartin.Burian@gfa-envest.com | Team Consultant | **Development of grid emission factors for SADC countries and for the SAPP regional grid** to assist investments into carbon projects that supply the SAPP Grid and to promote investments into Renewable energy and energy efficiency. |
| April 2011 | Botswana | Gender and Energy Network of Botswana (GENBO)Tiro Ngidi; GENBOTel: 267-3607570tiro@botec.bw | Resource Person | Resource material Preparation and presentation on interactions of **Gender, energy and climate change**. |
| Feb 2011- Jan 2013 | Botswana | UNEP-Risoe/ Govt of Botswana**Karen Holm Olsen**Researcher, PhDPhone direct +45 4677 5195karen.olsen@risoe.dk | Lead Consultant | Supporting **CDM project development to Project design Documents** and sensitization of the local financial sector to support carbon projects. |
| Aug 2010 to Novt 2010 | Mozambique | DFID- UKAIDDr Rita Zacariasr-zacarias@dfid.gov.uk | International Consultant | **Development of A Climate Change Mainstreaming Programme** (Adaptation and Mitigation aspects) with capacity building as one of the key components. The programme also addressed all stakeholders from national government to community involvement. This also entailed developing Terms of Reference for Revision of the National Adaptation Programme of Action (NAPA) and for developing Mozambique’s first Climate Change Strategy |
| Sept 2010-Dec 2010 | Botswana | Food Agriculture and Natural Resources Policy Analysis Network of SADC (FANRPAN)Dr Lindiwe Sibanda[lmsibanda@fanrpan.org](http://mail.wise.co.bw/webmail/src/compose.php?send_to=lmsibanda%40fanrpan.org) | Team Leader | Assessing the Vulnerability of Agriculture to Climate Change in Botswana. Part of "Strategies for Adapting to Climate Change in Rural Sub-Saharan Africa: Targeting the Most Vulnerable", funded by BMZ |
| Nov 2009-May 2010 | SADC | ECN of The Netherlands Dr Heleen de Coninck  deconinck@ecn.nl | Regional coordinator | **Quick scan of potential for Carbon storage and formulation of regulatory frameworks for the participating countries of Botswana, Mozambique and Namibia**. Writing of workshop reports and fact sheets |
| Aug 2009-Jan 2012 | SADC Region | ESKOM of South AfricaMs Maria Coutomaria.couto@eskom.co.za | Lead Researcher and project initiator and coordinator | **Assessment of the vulnerability of the SADC power sector** to extreme climatic events in the last 30 years Analysis of past climatic events and their impacts on the power sector, developing of plausible adaptation measures for the sector |
| 2008-2009 | Global | UNFCCC Bert van der Plasbvanderplas@unfccc.int | Co-leading consultant/author | **Development of performance indicators** for the technology transfer process under the convention. Working with a Belgian counterpart |
| 2009 | Swaziland | Restructuring and Diversification Management Unit (RDMU)- GFA=-ENVEST of Germany GFA Envest of GermanyJoachim Schnurrjoachim.schnurr@gfa-envest.comwww.gfa-envest.com | Resource consultant | **Development Grid emission factor for development of CDM** projects in the sugar industry-- Developing a national electricity grid emission factor and a regional baseline emission factor that would allow implementation of carbon projects in the sugar industry |
| Jan/Feb 2009 | East and Southern Africa | UNEP/UNOPSJohn WeatherbyTel: 41 - 22 - 917 8426 | Workshop coordinator |  **Capacity building workshop for East and Southern Africa negotiators** and their technical counterparts with emphasis on preparing them for Copenhagen COP 15. Subjects of workshop around AWG-LCA and Kyoto. |
| 2008 | Namibia | Nampower of Namibia Danie LouwEnvironmental ManagerNampower, Windhoek NamibiaTel +264-811222746Danie.Louw@nampower.com.na | Lead Consultant | Air Pollution and **carbon foot print for a coal power station van Eck** in Namibia Determination of air pollutants and carbon emissions at the only coal power station of van Eck, in Windhoek  |
| 2007 | SADC region | ECN- NetherlandsDr Heleen de Coninck  deconinck@ecn.nl | Consultant | **Organization of regional workshop on carbon capture and storage and CDM approaches** Workshop organization and facilitation, presentation on CDM modalities, prepared the workshop report. |
| 2006-2007 | Global | UNFCCCcdmregistration@unfccc.int | Methodological Expert | **Reviewing CDM Project Design Documents and Validation Reports** for project activities that were due for Executive Board for Registration and Issuance- looking at appropriate application of approved methodologies |
| 2004-2007 | Global | Peter BoschIPCC Technical Support Unit WG IIItel: +31 30 274 2285 | Lead Author | Co-Authored chapter on transport sector for the Fourth Assessment report and was also awarded Nobel Peace Prize as a member of IPCC. The involvement was on mitigation analysis of transport options related to policies and biofuels/natural gas. |
| May 2005-April 2007 | Zambia | UNEP/World BankProf Francis Yambayambafd@yahoo.com | Team expert | **Development of CDM project ideas and baselines**. The projects were at PIN level but were approved by the sponsors for further development. The project also involved supporting forming a Designated National Authority- which is now in place |
| 2005-2006 | Southern Africa | Eskom of South Africa Ms Maria Coutomaria.couto@eskom.co.za | Project Manager | **Greenhouse Gas Emission factor Improvements** (contd project)Measurements and analysis of Emission Factors at additional coal and diesel power plants in Botswana, Namibia and Mozambique. |
| 2006 | Botswana | FerroGrow-Sivest and Process Projects of South AfricaMr Moteza Abkenari+267-73300362 | EIA consultant | **Team Leader and Consultant.** Developedc EIA for a Multinutrient fertilizer plant as part of the feasibility study for the project |
| 2003-2005 | Southern Africa | European Commission- EU Synergy Programme Luís Manuel Alves, PhD lalves@navier.ist.utl.pt | Botswana Team Leader | **Capacity Building** for CDM in Sub-Saharan Countries Support for Project development and building capacity among key stakeholders through national and regional workshops. |
| 2004 | Botswana | UNDP- BotswanaMr Balisi Gopolangbgopolang@gmail.com | Consultant | **UNFCCC Technology Needs Assessment** Identification and analysis of environment sound technologies applicable to the Botswana economy- energy, agriculture, waste etc sectors. |
| 2003-2004 | Botswana | UNDP- Botswana**Leonard Dikobe****Programme Specialist** **Tel: +267 3952121 x247** | Consultant |  **GEF Demonstration project for non-motorised transport in Botswana** Developed a GEF Project starting at project conceptualization, PDF level and development of the project brief. The project is currently under implementation |
| 2002-2004 | Global | UNFCCC-CDM | Member | **Methodological Panel Member of the CDM Executive Board-** Provided guidance to the EB on submitted new and revised methodologies with regard to adequacy for approval. |
| 2002 | Botswana | BCL LtdThe Environmental managerMs Nchadi00267 71637618 | Team Leader & Principal consultant | **Environmental audit for sand mining in the Motloutse River to supply the BCL smelter-** this was auditing performance of operations and adherence to the Environmental Management Plan |
| 2002 | Botswana | Kalahari Resources Development Ltd Mr Moteza Abkenari+267-73300362 | Lead consultant | EIA of the FERROGROW multinutrient fertilizer plant as part of the pre-feasibility study. Team leader for the Project |
| 2002 | Southern Africa | European Commission- EU Synergy Programme. Dr Felicity Thomas. University of Stutgart. Germany | Botswana Team Leader | **Capacity Building for CDM among the Private Sector in Southern Africa** Support for Project development to private sector proponents and supporting building an enabling environment among key stakeholders. |
| 2002 | Southern Africa-SA, Tanzania, Zambia & Zimbabwe | ESKOM of South AfricaMr Clive Turnerclive.turner@eskom.co.za | Regional Coordinator | **Determination of Region specific Emission Factors in Power Sector of Southern Africa** Project design, development and coordination of a project to determine emission factors at coal and diesel power stations in South Africa, Tanzania, Zambia and Zimbabwe. |
| 2001 | Botswana | UNDP Botswana /Dept of MeteorologyMr David Lesollerralekgotla@yahoo.com | Consultant | **Launching of Botswana’s Initial National Communication to the UNFCCC** Workshop Organization & facilitation; presented papers on mitigation options in both energy and non energy sectors; and adaptation measures for the water sector |
| 2000 | Botswana | Minerals and Energy Policy Centre of South Africa & Shell FoundationDr Rukato | Sole Country Consultant | Capacity Building for Clean Development Mechanism Stakeholder Consultations, Organize& Facilitate workshop for appreciation of CDM and produced workshop report |
| 2000 | of Uganda, Ghana and The Gambia | UNEP Centre- Risoe National Laboratory. Denmark and Governments of Uganda, Ghana and The Gambia**Dr Gordon A. Mackenzie**goma@risoe.dtu.dk | Sole Consultant/Resource Person | **Training of National Teams on CDM:** Support to national teams to produce CDM Project pipelines. The support involved both technical and financial analysis of potential CDM projects. |
| 2000 | Africa | Department of Energy- National Renewable Energy Laboratory USAMs Sandy Guill | Organizer and Sole Consultant | **Resource person for USIJI** Provided support for Development of USIJ projects; organized workshop to discuss project proposals and produced the workshop reports |
| 2000 | Southern Africa | ESKOM of South Africa | Regional Coordinator | **Scoping Exercise for improving greenhouse gas emissions factors**: Project conceptualization and Building project teams for determination of emission factors for the SADC power sector. |
| 2000 | Ethiopia | United Nations Institute of Training and Research (UNITAR) and Government of Ethiopia | Main Consultant | **Training national** team on energy planning and mitigation analysis using LEAP Trained national climate change team on mitigation analysis and energy planning and modelling using the LEAP model. |
| 1999 | Africa | UNFCCC Secretariat. Bonn GermanyMr Roberto Acosta. Coordinator ATS, UNFCCC | One of 3 African Consultants | **Climate Related Technology Transfer for Africa** Made a comprehensive assessment of the technology transfer that could have taken place through GEF, AIJ and other programmes in Africa. Presented the African experience in El Salvador and also to SUBSTA side event. |
| 1999 | East and Southern Africa | IHDP Office. Bonn GermanyDr Youba Sokona | Principal Consultant | **Assessing International Human Dimension Programme Research** Assessment on institutional capacity for global climate change in East and southern Africa. |
| 1999 | Botswana | UNDP Country Office and Government of BotswanaMr David Lesollerralekgotla@yahoo.com | Team Leader and Principal Consultant | **GEF Enabling Activities-** Mitigation of Non-energy sector; Upgrading GHG inventory; Climate Related Policies Analysis of greenhouse gas emissions mitigation options in the non energy sector providing cost curves and ranking for implementation. |
| 1999 | Lesotho | Government of LesothoDirectorDept of Meteorological Services | Consultant | **Training of National Team on Mitigation Analysis** ; Energy and Non-Energy Mitigation Analysis for National Communication Trained national climate change team on mitigation analysis and energy planning and modelling using the LEAP model. |
| 1999 | Botswana | UNDP Country Office/Government of BotswanaMr David Lesollerralekgotla@yahoo.com | Short Term Consultant | **National Climate Change Committee workshop** Presented paper on climate change issues and Facilitated a stakeholder workshop to deliberate on the issues as they affect Botswana |
| 1997-98 | Botswana | US Country Studies Programme/ Government of Botswana | Team Leader and Principal Consultant | **Vulnerability and Adaptation of the Water Resources Sector** Performed a Water balance modelling and adaptation measures for the Botswana water Sector |
| 1994-1998 | Botswana | UNEP Centre- Risoe National Laboratory. Denmark and Government of Botswana**Dr Gordon A. Mackenzie**goma@risoe.dtu.dk | Team Leader and Principal Researcher | **Economics of Greenhouse Gas Mitigation in the Energy Sector Analysis** of greenhouse gas emissions mitigation options in the energy sector providing cost curves and ranking for implementation |
| 1996-99 | Southern Africa | Southern Centre (Harare) and GTZ of Germany Biomass Users NetworkDr R S Maya00263912963683 | One of Regional Consultant | **Implications of GHG emissions and Mitigation under Southern Africa Power Pool** Prepared GHG inventory of the SADC power sector and Analysed of greenhouse gas emissions mitigation options for the sector |
| 1997 | Southern Africa | UNEP Centre- Risoe National Laboratory. Denmark  | Sole Researcher | Transport Energy Sector Mitigation policy Analysis for the southern Africa region. Was published as a book chapter- Earthscan |
| 1994-1998 | East and Southern Africa | African Energy Policy Research Network and Sida | Principal Researcher | **Transport Energy Sector policy analysis** Analysed potential Transport energy mitigation options for the East and Southern Africa transport corridors. . |
| 1995 | Botswana | Southern Centre (Harare) and Institute of Environmental Studies-Netherlands Biomass Users NetworkDr R S Maya00263912963683 | Country Researcher | **National Consultations on Joint Implementation** Stakeholder consultations on potential of JI as a mechanism. Results were presented at a regional workshop in Zimbabwe. |
| 1994-95 | Global | World Meteorological Organization | Reviewer | **IPCC Second Assessment Report** Was a reviewer of the second assessment report |
| 1993-94 | Africa | Stockholm Environment Institute | Theme Consultant | **Technology acquisition and transfer for Climate in Africa** Prepared a research paper of conventional means of technology transfer and how to apply them to climate change and development. The paper is a chapter in a book. |
| 1994-1998 | Botswana/Southern Africa | African Energy Policy Research Network and Sida | Principal Researcher | Coal and Global warming Produced extent of GHG emissions from coal mining and combustion |
| 1993 | Zimbabwe | Southern Centre (Harare) and IDRC of Canada Biomass Users NetworkDr R S Maya00263912963683 | Consultant | **Greenhouse Gas Emissions from Agriculture** Produced an inventory of greenhouse gas emissions for the Agriculture sector in Zimbabwe  |
| **WATER PROJECTS** |
| 2003-2007 | 8 SADC countries | Eskom of South Africa Ms Maria Coutomaria.couto@eskom.co.za | Water Balance modelling | Hydrological modelling of the Zambezi Valley Basin -Conducted a water balance analysis and implications on hydropower potential on the Zambezi River under a climate change regime. |
| 2003 | Southern Africa | USAID-RCSA | Team Leader | Technical Analysis of the Water Resources Management Strategic Option -Development of a water strategy for Southern Africa that would be supported by USAID |
| 2001-2002 | Southern Africa | IUCN-Regional Office of Southern Africa | Consultant | Climate Change, Water and Wetlands Study on the impacts of climate change on wetlands and water resources. Produced the resource paper and presented it to SADC stakeholders. |
| 2003 | Botswana | Institute of Water and Sanitation Development- HARARE | Consultant | Project Development in Botswana for Water Research Fund for Southern Africa -Provided technical support for Project identification and development, workshop organization & facilitation and supported writing of proposals. |
| 2003 | Southern Africa | USAID-RCSA | Team Leader | Technical Analysis of the Water Resources Management Strategic Option -Development of a water strategy for Southern Africa that would be supported by USAID |
| 1998 | Southern Africa | African Development Bank | Consultant | Regional Environment, Water and Wild Life -A Situational analysis on the environmental impacts on water and wild life for purposes of guiding AfDB support to the SADC region. |
| 1997 | Southern Africa | Management System International (USA)/USAID Regional Centre for Southern Africa | Regional Water Expert | Stakeholder Consultation and Issues Paper on Implementation of the SADC Water Protocol -Prepared an Issues paper through Regional stakeholder consultations and reviews. Presented the paper which became the subject of discussion at a regional workshop, which I organized |
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| 1982-1990 | Zimbabwe | UNDP/ Government of Zimbabwe/Hart Humphrey Civil Engineers | Independent Consultant |  Geotechnical Evaluation of Dam Sites -Foundation studies using seismic surveys involving small, medium and 9 large dam sites in Zimbabwe working with a renowned Civil Engineering companies. He also undertook water exploration surveys for government and invidual farmers and households. |
| 1982-1990 | Zimbabwe | Government of Zimbabwe/ SRK and Partners | Independent Consultant | Evaluation of Groundwater resources for Rural Supplies- Ground water Surveys and resource assessment for rural water supplies |
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| **OTHER EXPERIENCES** |
| Date | **Location** | **Company** | **Position** | **Description** |
| 2010 | Botswana | Institute of Global Dialogue | Team Leader | The state of municipal infrastructure in the southern African region the case for Botswana. |
| 2007 | SADC region | RETOSA/SADCMr Remmy Makumbermakumbe@sadc.int | Team Leader | Refocusing of the Regional Tourism Organization of Southern Africa (RETOSA)Restructured RETOSA to include a new operational programme, institutional framework, funding mechanism and M&E framework |
| May, 2006 | Gaborone-Botswana | UNDP Botswana**Leonard Dikobe****Tel: +267 3952121 x247** | Review Team Consultant | Mid Term Review of the 2003 to 2007 UNDP-Botswana country programme. This project involved evaluating performance of the Botswana (Poverty, governance, HIV/AIDS and environment) country programme that is being supported by the UNDP in that country. This was done with the view to refocus the programme for better delivery before the end period in 2007. I was in charge of reviewing the environment component. |
| 2005-2006 | Botswana | Ms Lesego Motoma+2673932435 | Team Leader and Lead consultant | Development of the Innovation Capabilities database Developed baseline information on research science and technology and developed a database for the country. |
| 2005 | For Kenya (regional workshop in Mozambique) | Risoe National Laboratory **Gordon A. Mackenzie**goma@risoe.dtu.dk | Facilitator | Stakeholder Dialogue facilitation on energy and development in Kenya Facilitating programme development, for project proposals that were submitted to the EU Energy facility. |
| 2005/06 | SADC countries | Michigan State University PFID Project | Rapportuer | Rapportuer for Regional workshop on Agriculture and HIV/AIDS Produced the workshop reports |
| 2002 | SADC countries | Chemonics | Rapportuer | Rapporteur for FANRPAN regional workshop Produced the workshop reports |
| 2000-2003 | South Africa | Energy Research Centre university of cape Town | External examiner | Maked MSc desertations on energy |
| 2000 | South Africa | University of Witwatersrand | External Examiner of PhD Thesis | Petroleum and Sustainable Development- case of Natural gas in South Africa |
| 1999 | USAID/RCSA | USAID/RCSA | Facilitator | Facilitation for Strategic Objective 2- Regional Market Integration at USAID Facilitation and produced workshop reports |
| **FULL TIME EMPLOYMENT** |
| 1991-1993 | Botswana | Geoflux Pty Ltd. Botswana | Principal Consultant  | Groundwater Resources Exploration, Evaluation and Management Ground water Surveys and water resource assessment for large scale water projects supplying ranching areas. |
| 1989-1991 | Zimbabwe | University of Zimbabwe | B Tech Physics Coordinator and Lecturer and later Senior Research Fellow (6 months) | This was 2 years of manging transition of the B Tech Programme from a Technical College into the University. The position involved institutional building of the B Tech Department within the University as this was a fresh start after closing operations in the Harare Polytechnic. The handover was a a challenging change management reselecting new staff and dropping others who were not acceptable at University teaching level. As Lead Coordinator, the task of managing change was on my shoulder and also getting acceptance into the University Departments and ensuring friendly merging of existing and arriving staff. The position also involved recruitment of both full time and part time lecturers. I was also involved in teaching/capacity building of students at undergraduate level. |
| 1981-1989 | Zimbabwe | Geological Survey, Ministry of Mines, Zimbabwe | Head of Geophysics Division (Full Time) with part time consultancies | Managing a Division of more than 6 professionals. Headed execution of national ground breaking geophysical projects spanning mining, oil exploration, water exploration and geotechnical work. The role also entailed institutional building by growing the Division from scratch and change management of technical staff and technicians. There was a signficant component of capacity building- enhancing skills of new graduates and technicians in geophysical approaches and use of equipment and managing crews on projects. |
| 1980-1981 | Zimbabwe | Government of Zimbabwe | Research Officer | Statistical -Evaluation of Dam yields Modelling of water resources in various reservoirs supplying Zimbabwe. |

**Publications:**

**Articles in Books/Publications**

* Lead Author. Climate Change - Mitigation of Climate Change. Working Group III To The Fifth Assessment Report of The Intergovenmental Panel on Climate Change.2014. IPCC. Cambridge University Press.
* CoAuthor: Zambia Renewables Readiness Assessment. 2013. IRENA.
* CoAuthor:Swaziland Renewables Readiness Assssment.2013.IRENA
* Peter P. Zhou, Tichakunda Simbini, Gorata Ramokgotlwane, Timothy S. Thomas, Sepo Hachigonta, and Lindiwe Majele Sibanda, 2013 Southern African Agriculture and Climate Change: A Comprehensive Analysis. A case for Botswana; in Hachigonta, S.; Nelson, G.C.; Thomas, T.S.; Sibanda, L.M. Southern African Agriculture and Climate Change: A Comprehensive Analysis. International Food Policy Research Institute, Washington DC, USA (2013) 337 pp. ISBN 978-0-89629-208-6 [DOI: 10.2499/9780896292086].
* Francis D. Yamba, Hartley Walimwipi, Suman Jain, Peter Zhou, Boaventural Cuamba, Cornelius Mzezewa 2011 Climate change/variability implications on hydroelectricity generation in the Zambezi River Basin. [Mitigation and Adaptation Strategies for Global Change](http://www.researchgate.net/journal/1381-2386_Mitigation_and_Adaptation_Strategies_for_Global_Change) (Impact Factor: 1.86). 01/2011; 16(6):617-628. DOI: 10.1007/s11027-011-9283-0
* Determination of Regional Emission Factors for the Power Sector In Southern Africa Peter P. Zhou; Francis D. Yamba , Philip Lloyd, Lovemore Nyahuma, Cornelius Mzezewa. Journal of Energy of South Africa. Journal of Energy- Southern Africa
* Impacts Of Local, Regional And Global Climate Change With Particular Reference To Hydroelectric Generation In The Zambezi River Basin Prof F.D Yamba Dr P.Zhou; Dr B. Cuamba; Mr H. Walimwipi;Mr C. Mzezewa; Eskom Book. Published by Crown Publications cc Johannesburg. SA
* Towards the Green Economy. Pathways to Sustainable Development and Poverty Eradication. Contributed to the renewable energy Chapter. This chapter makes the case for increasing investment to green the energy sector with a focus on the renewable energy supply. It describes the current world energy supply and the growing role of renewable sources of energy within it, as well as discusses the challenges and opportunities facing both governments and the energy sector 2010
* Lead Author. IPCC Fourth Assessment Report (AR4) Transport Sector Mitigation Working Group III Cambridge Press. 2007
* Zhou P. Peter. 2005. Opportunities for clean energy in the SADC under the UNFCCC the case for the electricity and transport sectors. In Climate Change and Africa. Ed. Pak Sum Low. Cambridge University Press.
* Introducing Cyclist and Pedestrian Pathways to the Urban Streets of Gaborone – Botswana”. Peter P. Zhou. Working Paper No. 305, Afrepren/Fwd, Nairobi, 2002. 13pp.
* Solar Energy With A Focus On Photovoltaics In Africa; In Energy & Sustainable Development In Africa Project; Peter P. Zhou; Coordinated By Energy And Development Research Centre University Of Cape Town
* Lead Author. IPCC Third Assessment Report (AR4) Transport Sector Mitigation Working Group III Cambridge Press. 2001
* Zhou P.P., 2000. The SADC Water Protocol. In Environmental Security in Southern Africa. Eds D. Tevera and S. Moyo. Environmental Policy Series. SAPES BOOKS Harare. Zimbabwe.
* Zhou, P, Rowlands, I. and Turkson, J (1998) Regional (SADC) Transport Greenhouse gas Mitigation Options. In Climate Change Co-operation in Southern Africa. Earthscan.
* Kgathi, D.L. and Zhou, P.P. (1995). Biofuel use in Africa: Implications for greenhouse gas emissions and mitigation strategies. US country Study Report. African Regional workshop on greenhouse gas emissions and mitigation (Environmental Monitoring and Assessment Vol 38 Nos. 2-3, Kluwer Academic Publishers).
* Zhou, P.P (1995) Joint Implementation under the United Nations Framework Convention on Climate Change- political and practical aspects with respect to developing countries.- A case for Botswana. In Joint Implementation: Carbon Colonies or Business Opportunities. Southern Centre Climate Change Series Vol 3 eds. R.S. Maya and J Gupta.
* Davidson, O.R., Maya, R.S and Zhou, P., 1995. Climate Change Policy Options for Africa in A Climate for Development. Eds. H.W. O. -Ogendo and J.B. Ojwang. Stockholm Environment Institute and African Centre for Technology Studies. Nairobi.
* .Zhou, P.P. 2000. Sustainable Mobility. Perspectives from the Transport Sector in East and Southern Africa. Industry and Environment. ISSN 0378-9993. Vol.23 No. 4. UNEP Paris.
* .Zhou, P.P. 2000. Climate Change Mitigation, Options and Strategies for Africa. In Climate Change for Africa. A GLOBE Southern Africa Publication.
* Zhou, P.P. 1999 Energy Use in Urban Transport in Africa. In Energy-Environment Linkages in African Cities. Final Report of the Regional Workshop. United Nations Centre for Human Settlements (HABITAT).
* Zhou, P.P. 1999. Integrated Assessment and Mitigation. In Global Warming and the Third World. Issue 34, December 1999. **TIEMPO. ISN 0962-7030**. Institute of Environment and Development IIED), London and University of East Anglia. Norwich. UK.
* Zhou, P.P (1995) Greenhouse gas mitigation in the energy sector of Botswana. **The Environmental Professional Vol 18 No.1. Blackwell Science, Inc.**

**H. Referees:**

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**Certification:**

I, the undersigned, certify that this CV correctly describes me, my qualifications, and my experience.

 Date: 21/8/2018