

**Environmental Impact Assessment for the
proposed Ubuntu Wind Energy Project near
Jeffrey's Bay, Eastern Cape:
Final Environmental Impact Assessment Report**

APPENDICES:

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APPENDIX A:

**Curriculum Vitae:
Paul Lochner and Minnelise Levendal**

CSIR
Jan Cilliers Street
PO Box 320
Stellenbosch 7600
South Africa

Phone: +27 21 888 2400
Fax: +27 21 888 2693
Email: plochner@csir.co.za



Curriculum Vitae

Paul Lochner

Name of firm	CSIR
Name of staff	Paul Andrew Lochner
Profession	Environmental Assessment and Management
Position in firm	Project Leader in Environmental Assessment & Management
Date of birth	13 June 1969
Years with firm	18 years
Nationality	South African

Biographical sketch Paul Lochner commenced work at CSIR in 1992, after completing a degree in Civil Engineering and a Masters in Environmental Science, both at the University of Cape Town. His initial work at CSIR focused on sediment dynamics and soft engineering applications in the coastal zone, in particular, beach and dune management. He conducted several shoreline erosion analyses and prepared coastal zone management plans for beaches. He also prepared wetland management plans.

As the market for environmental assessment work grew, he led Environmental Impact Assessments (EIAs), in particular for coastal resort developments and large-scale industrial developments located on the coast; and Environmental Management Plans (EMPs), in particular for wetlands, estuaries and coastal developments. He has also been involved in researching and applying higher-level approaches to environmental assessment and management, such as Strategic Environmental Assessment (SEA). In 1998 and 1999, he coordinated the SEA research programme within the CSIR, and was a lead author of the Guideline Document

for SEA in South Africa, published jointly by CSIR and the national Department of Environmental Affairs and Tourism in February 2000.

In 1999 and 2000, he was the project manager for the legal, institutional, policy, financial and socio-economic component of the Cape Action Plan for the Environment ("CAPE"), a large-scale multi-disciplinary study to ensure the sustainable conservation of the Cape Floral Kingdom. This was funded by the Global Environmental Fund (GEF) and prepared for WWF-South Africa. The study required extensive stakeholder interaction, in particular with government institutions, leading to the development of a Strategy and Action Plan for regional conservation.

In July 2003, he was certified as an Environmental Assessment Practitioner by the Interim Certification Board for Environmental Assessment Practitioners of South Africa. In 2004 he was lead author of the *Overview of IEM* document in the updated Integrated Environmental Management (IEM) Information Series published by national Department of Environmental Affairs and Tourism (DEAT). In 2004-2005 he was project manager for an Environmental and Social Impact Assessment (ESIA) conducted for a bauxite mine and alumina refinery in the Komi Republic (Russia), prepared in accordance with World Bank and EU policies, guidelines and standards.

In 2004-2005, he was part of the CSIR team that coordinated the preparation of the series of *Guidelines for involving specialists in EIA processes* prepared for the Western Cape Department of Environmental Affairs and Development Planning (DEADP); and authored the *Guideline for Environmental Management Plans* published by the Western Cape government in 2005.

Over the past 6 years has been closely involved with several environmental studies for industrial and port-related projects in Coega Industrial Development Zone (IDZ), near Port Elizabeth. This included an EIA and EMP for a proposed aluminium smelter, and assistance with environmental permit applications for air, water and waste. He has also conducted environmental assessments for port development, manganese export and rail development at the Coega IDZ and port.

He is currently leading the EIA for a desalination plant in Namibia; an EIA for a wind energy facility near Jeffreys Bay, South Africa; and an EIA for a proposed crude oil refinery at Coega.

Education

1990	B.Sc. Civil Engineering (awarded with Honours)	University of Cape Town
1992	M. Phil. Environmental Science	University of Cape Town

Employment record *January 1992 to June 1992:* Completed Masters thesis, working in conjunction with the Environmental Evaluation Unit at the University of Cape Town. The thesis investigated the potential future ecological and socio-economic impacts resulting from the closure of a large diamond mining operation, and developed actions to mitigate these impacts.

October 1992 to present: Employed by the CSIR in Stellenbosch. Involved in coastal engineering studies; and various forms of environmental assessment and management studies. (A track record of experience is listed below).

PROFESSIONAL INVOLVEMENT IN COMMITTEES:

<i>1996/97:</i>	Committee Member of the Western Cape Branch of the International Association for Impact Assessment (IAIA)
<i>1997/98:</i>	Chairperson of the Western Cape Branch of IAIA and member of the national IAIA committee
<i>1998/99:</i>	Committee Member of the Western Cape Branch of IAIA
<i>1996 to present:</i>	Chairperson of the Intaka Island/Blouville Environmental Committee at Century City, Cape Town (This committee is tasked with overseeing the management of a wetland in the midst of a new mixed-use urban development)

Experience record The following table presents an abridged list of projects that Paul Lochner has been involved in, indicating his role in each project:

Completion Date	Project description	Role	Client
2011 <i>(in progress)</i>	EIA for the proposed Ubuntu wind energy project, Eastern Cape, South Africa	Project leader	Windcurrent SA (Pty) Ltd in a Joint Venture with WKN Windkraft Nord AG
2011 <i>(in progress)</i>	EIA for the proposed Banna ba pifhu wind energy project, Eastern Cape, South Africa	Project leader	Windcurrent SA (Pty) Ltd in a Joint Venture with WKN Windkraft Nord AG
2009/2010 <i>(in progress)</i>	EIA for the proposed BioTherm wind energy project, Overberg region, South Africa	Project leader	Biotherm South Africa (Pty) Ltd
2009/2010 <i>(in progress)</i>	Basic Assessment (BA) for monitoring masts for the proposed Biotherm wind energy project, Overberg region, South Africa	Project leader	Biotherm South Africa (Pty) Ltd
2009/2010 <i>(in progress)</i>	EIA for the proposed InnoWind wind energy project, Western Cape, South Africa	Project leader	InnoWind South Africa (Pty) Ltd
2009/2010 <i>(in progress)</i>	BA for the proposed InnoWind test turbines and monitoring masts, Western Cape, South Africa	Project leader	InnoWind South Africa (Pty) Ltd
2009/2010 <i>(in progress)</i>	EIA for the proposed Electrawinds Phase 2 wind energy facility, Coega IDZ, Eastern Cape	Project leader	Electrawinds N.V. (Belgium)

Completion Date	Project description	Role	Client
2009/2010 (in progress)	BA for the national wind Atlas for South Africa	Project leader	SANERI and SA Wind Energy Programme, Dept of Energy
2009/2010 (in progress)	EIA for the proposed Gecko soda plant, Otjivalunda and Arandis, Namibia	Project leader	Gecko, Namibia
2009	BA for the proposed Electrawinds test turbine and monitoring mast, Coega IDZ, Eastern Cape	Project leader	Electrawinds N.V. (Belgium)
2009	EIA for the proposed desalination plant at Swakopmund, Namibia	Project leader	NamWater, Namibia
2009	EMP for the Operational Phase of the Berg River Dam, Franschhoek, South Africa	Project leader and report co-author	TCTA, South Africa
2009/2010 (in progress)	EIA for the proposed crude oil refinery at Coega, South Africa	Project leader and lead author	PetroSA, South Africa
2008	Environmental Risk Review for proposed LNG/CNG import to Mossel Bay, South Africa	Project leader and lead author	PetroSA, South Africa
2008	Review of the Business Plan for catchment management for the Berg Water Dam Project, Franschhoek, South Africa	Project reviewer and co-author	TCTA, South Africa
2007 – 2008 (in progress)	EIA for proposed Jacobsbaai Tortoise Reserve eco-development, Saldanha, Western Cape	Project Leader and co-author	Jacobsbaai Tortoise Reserve (Pty) Ltd
2007 – 2008 (in progress)	Independent reviewer for the EIA proposed Amanzi lifestyle development, Port Elizabeth	Independent reviewer appointed to advise EAP	Public Process Consultants and Pam Golding
2007 – 2008 (in progress)	EIA for proposed Kouga wind energy and pumped storage scheme, Eastern Cape	Project Leader and co-author	Genesis Eco-Energy
2007	Review of EIA for the proposed Hanglip Eco-Development, Plettenberg Bay, Western Cape	Co-author of review of EIA, undertaken on behalf of DEADP	Dept of Environmental Affairs & Development Planning, Western Cape
2006-2007 (in progress)	Environmental Impact Assessment for the proposed Coega LNG-to-Power Project at the Port of Ngqura, Coega IDZ	Project Leader and co-author	Eskom and iGas
2006-2007 (in progress)	Guideline for Scoping, Environmental Impact Assessment and Environmental Management Plans for mining in South Africa	Project leader and co-author	Dept of Minerals and Energy (DME), South Africa
2006	Environmental Impact Assessment (EIA) for the extension of the Port of Ngqura, Eastern Cape	Project Leader and co-author	Transnet
2006	Integrating Sustainability Into Strategy: Handbook (Version 1)	Project Leader and co-author	CSIR (STEP research report)
2005	Technology Review for the proposed aluminium smelter at Coega, South Africa	Project Leader and lead author	Alcan, Canada
2005	Environmental and Social Impact Assessment (ESIA) report for the proposed alumina refinery near Sosnogorsk, Komi Republic, Russia	Project manager and co-author	Komi Aluminium, Russia, IFC, EBRD
2005	Guideline for Environmental Management Plans (EMPs) for the Western Cape province, including conducting a training course for provincial government	Author	Dept of Environmental Affairs & Development Planning, Western Cape
2005	Guideline for the review of specialist studies undertaken as part of environmental assessments	Member of Steering Committee and project facilitator	Dept of Environmental Affairs & Development Planning, Western Cape
2004	Review of Strategic Management Plan for Table Mountain National Park (2001-2004)	Reviewer and co-author	South African National Parks

Completion Date	Project description	Role	Client
2004	Strategic Needs Assessment Process for mainstreaming sustainable development into business operations	Researcher and co-author	CSIR (internal research)
2004	Environmental Monitoring Committees booklet in the IEM Information Series for DEAT	Contributing author	Department of Environmental Affairs and Tourism (DEAT)
2004	Overview of Integrated Environmental Management (IEM) booklet in the IEM Information Series	Lead author and researcher	DEAT
2003	Environmental Screening Study for gas power station, South Africa	Project Manager and lead author	Eskom, iGas and Shell
2003	Environmental Management Programme (EMP) Framework for the proposed Coega Aluminium Smelter; and assistance with preparing permit and licence applications	Project Manager and lead author	Pechiney, France
2003	Environmental Management Plan for the Operational Phase of the wetlands and canals at Century City, Cape Town	Project leader and lead author	Century City Property Owners' Association
2002	Environmental Impact Assessment for the proposed Pechiney aluminium smelter at Coega, South Africa	Project Manager and lead author	Pechiney, France
2002 - 2003	Research project: Ecological impact of large-scale groundwater abstraction on the Table Mountain Group aquifer	Project Manager	Water Research Commission
2002	Environmental Management Plan for the Eskom Wind Energy Demonstration Facility in the Western Cape	Co-author	Eskom
2001-2002	Environmental Impact Assessment for the Eskom Wind Energy Demonstration Facility in the Western Cape	Quality control & co-author	Eskom
2001	Environmental Due Diligence study of four strategic oil storage facilities in South Africa	Project manager and co-author	SFF Association
2000	Cape Action Plan for the Environment: a biodiversity Strategy and Action Plan for the Cape Floral Kingdom - legal, institutional, policy, financial and socio-economic component	Project manager and contributing writer	World Wide Fund for Nature (WWF): South Africa
1999	Environmental Management Plan for the establishment phase of the wetlands and canals at Century City, Cape Town	Project manager and lead author	Monex Development Company
1999	Environmental Management Programme for the Thesen Islands development, Knysna	Process design and Co-author	Chris Mulder Associates Inc; Thesen and Co.
1999	Management Plan for the coastal zone between the Eerste and Lourens River, False Bay, South Africa	Project manager and lead author	Heartland Properties and Somchem (a Division of Denel)
1998	Environmental Assessment of the Mozal Matola Terminal Development proposed for the Port of Matola, Maputo, Mozambique	Project manager and author.	SNC-Lavalin-EMS
1998	Strategic Environmental Assessment (SEA) for the Somchem industrial complex at Krantzkop, South Africa	Project manager and co-author	Somchem, a Division of Denel
1997	Strategic Environmental Assessment (SEA) for the proposed Industrial Development Zone and Harbour at	SEA project manager and report writer	Coega IDZ Initiative Section 21 Company

Completion Date	Project description	Role	Client
	Coega, Port Elizabeth, South Africa		
1996	Environmental Impact Assessment of Development Scenarios for Thesen Island, Knysna, South Africa	Project manager and report writer	Thesen and Co.
1996	Environmental Impact Assessment of the Management Options for the Blouville wetlands, Cape Town	Project manager and report writer	Ilco Homes Ltd (now Monex Ltd)
1995	Environmental Impact Assessment for the Saldanha Steel Project, South Africa	Report writing and management of specialist studies	Saldanha Steel Project
1994	Environmental Impact Assessment for the upgrading of resort facilities on Frégate Island, Seychelles	Member of the project management team, co-author, process facilitator	Schneid Israelite and Partners
1994	Environmental Impact Assessment for exploration drilling in offshore Area 2815, Namibia	Project manager and co-author	Chevron Overseas (Namibia) Limited
1994	Management Plan for the Rietvlei Wetland Reserve, Cape Town	Project manager and lead author	Southern African Nature Foundation (now WWF-SA)
1993	Beach management plan for Stilbaai beachfront and dunes, South Africa	Project manager and lead author	Stilbaai Municipality
1993	Beach and dune management plan for Sedgefield for the beach east of the mouth of the Swartvlei estuary	Project manager and lead author	Nel and De Kock Planners, George
1993	Coastal Stability analysis and beach management plan for the Table View coastline north of Blaauwberg Road, Cape Town	Project manager and lead author	Milnerton Municipality

Publication record

A comprehensive list of publications, book chapters and contract reports is available upon request, with a summary provided below.

Publications in journals, peer reviewed conference proceedings and CSIR internal research reports:

Lochner P, Munster F and Burns M, 2006. Integrating Sustainability into Strategy (ISIS): a process to inform sustainability strategies and frameworks, *In: IAIA South Africa Annual Conference proceedings*, South Africa.

Rossouw N and Lochner P, 2006. Environmental Monitoring Committees (EMCs): purpose, function and structure. *In: IAIA South Africa Annual Conference proceedings*, South Africa.

Munster F and Lochner P, 2006, Integrating Sustainability Into Strategy: Handbook (Version 1) – describing a process to inform sustainability strategies, frameworks and reports, *CSIR Report ENV-S-1 2005-001*, ISBN 0-7988-5560-6, Stellenbosch.

Van Zyl H, de Wit M, Munster F, Lochner P, Gerber G, 2005. Economics in Environmental Impact Assessment: demystifying the

theory and practice, *In*: Conference Proceedings of the IAIA South Africa 2005 Annual National Conference. South Africa.

Lochner P, Weaver A, Gelderblom C, Peart R, Sandwith T and Fowkes S, 2003. Aligning the diverse: the development of a biodiversity conservation strategy for the Cape Floristic Region. *Biological Conservation Vol. 112, ISSN: 0006-3207.*

Lochner P, Münster F, Msutu M, Wren S, 2003. The role of stakeholder engagement in the EIA for the Coega Aluminium Smelter. *In*: Conference Proceedings of the IAIA South Africa 2003 Annual National Conference. ISBN 1-919891-04-8. South Africa.

Lochner P, Brooks W, Pesch P & Münster M. 2003, Stakeholder engagement process in the EIA of an aluminium smelter, Published in *Light Metals 2003* (Ed. Paul Crepeau), Published by TMS (the Minerals, Metals & Materials Society), ISBN Number 0-87339-531-X, USA.

Rossouw N, Audouin M, Lochner P, Heather-Clark S and Wiseman K, 2000. Development of strategic environmental assessment in South Africa. *Impact Assessment and Project Appraisal*. Vol 18, no. 3, pp 217-223. United Kingdom.

Lochner P and Fowkes S, 2000. Building partnerships for the conservation of the biodiversity of the Cape Floral Kingdom: experiences and lessons learnt from the Cape Action Plan for the Environment. IAIA-SA Conference Proceedings 2000. South Africa.

Lochner P and Rossouw N, 1997. The development of an Environmental Management Plan for incorporating a wetland into a large mixed use development: the Century City example. IAIA-SA Conference Proceedings 1997. South Africa.

Language capability

	<i>Speaking</i>	<i>Reading</i>	<i>Writing</i>
English	Excellent	Excellent	Excellent
Afrikaans	Average	Average	Average

Paul Lochner
August 2011

CSIR
Jan Cilliers Street
PO Box 320
Stellenbosch 7600
South Africa

Phone: +27 21 888 2400
Fax: +27 21 888 2693
Email: mlevendal@csir.co.za



Curriculum Vitae

Minnelise Rouchelle-Ann Levendal

Name of firm	CSIR
Name of staff	Minnelise Levendal
Profession	Environmental Assessment and Management
Gender:	Female
Years with firm	Seven years
Nationality	South African
Languages	Afrikaans and English

CONTACT DETAILS:

Postal Address:	P O Box 320, Stellenbosch, 7599
Telephone Number:	021-888 2495/2661
Cell:	0833098159
Fax:	0865051341
e-mail:	mlevendal@csir.co.za

EDUCATION

- M.Sc. (Botany) Stellenbosch University 1998
- B.Sc. (Hons.) (Botany) University of the Western Cape 1994
- B.Sc. (Education) University of the Western Cape 1993

MEMBERSHIPS:

- International Association for Impact Assessment (IAIA), Western Cape (member of their steering committee from 2001-2003)
- IUCN Commission on Education and Communication (CEC); World Conservation Learning Network (WCLN)
- American Association for the Advancement of Science (AAAS)
- Society of Conservation Biology (SCB)

EMPLOYMENT RECORD:

- **1995:** Peninsula Technicon. Lecturer in the Horticulture Department.
- **1996:** University of the Western Cape. Lecturer in the Botany Department.
- **1999:** University of Stellenbosch. Research assistant in the Botany Department (3 months)
- **1999:** Bengurion University (Israel). Research assistant (Working in the Arava valley, Negev – Israel; 2 months). Research undertaken was published (see first publication in publication list)
- **1999-2004:** Assistant Director at the Department of Environmental Affairs and Development Planning (DEA&DP). Work involved assessing Environmental Impact Assessments and Environmental Management Plans; promoting environmental management and sustainable development.
- **2004 to present:** Employed by the CSIR in Stellenbosch:
 - September 2004 – May 2008: Biodiversity and Ecosystems Services Group
 - May 2008 to present: Environmental Management Services Group (EMS)

PROJECT EXPERIENCE RECORD:

The following table presents a list of projects undertaken at the CSIR as well as the role played in each project:

Completion Date	Project description	Role	Client
2011 (in progress)	EIA for the proposed Ubuntu wind energy project, Eastern Cape, South Africa	Project Manager	Windcurrent SA (Pty) Ltd in a Joint Venture with WKN Windkraft Nord AG
2011 (in progress)	EIA for the proposed Banna ba pifhu wind energy project, Eastern Cape, South Africa	Project Manager	Windcurrent SA (Pty) Ltd in a Joint Venture with WKN Windkraft Nord AG
2011 (in progress)	BA for a powerline near Swellendam	Project Manager	BioTherm Energy (Pty Ltd)
2010 (in progress)	EIA for a proposed wind farm near Swellendam in the Western Cape	Project Manager	BioTherm Energy (Pty Ltd)
2010 (in progress)	BA for a powerline as part of the proposed wind farm project near Swellendam in the Western Cape	Project Manager	BioTherm Energy (Pty Ltd)
2010 (complete)	Basic Assessment for the erection of two wind monitoring masts near Swellendam and Bredasdorp in the Western Cape	Project Manager	BioTherm Energy (Pty Ltd)
2010 (complete)	EIA for the erection of two wind monitoring masts near Jeffrey's Bay in the Eastern Cape	Project Manager	Windcurrent (Pty Ltd)

Completion Date	Project description	Role	Client
2010 (in progress)	EIA for a proposed wind farm near Jeffrey's Bay in the Eastern Cape	Project Manager	Windcurrent (Pty Ltd)
2010 (complete)	Basic Assessment Process for the proposed erection of wind monitoring masts as part of the national wind atlas project	Project Manager	Department of Energy and SANERI
2010 (complete)	South Africa's Second National Communication under the United Nations Framework Convention on Climate Change	Project Manager	SANBI
2009 (complete)	Basic Assessment Report for a proposed boundary wall at the Port of Port Elizabeth, Eastern Cape	Project Manager	Transnet Ltd
2008	Developing an Invasive Alien Plant Strategy for the Wild Coast, Eastern Cape, South Africa	Co-author	Eastern Cape Parks Board
2006-2008	Monitoring and Evaluation of aspects of Biodiversity	Project Leader	Internal project awarded through the Young Researchers Fund
2006	Integrated veldfire management in South Africa. An assessment of current conditions and future approaches.	Co-author	Working on Fire
2004-2005	Biodiversity Strategy and Action Plan Wild Coast, Eastern Cape, SA	Co-author	Wilderness Foundation
2005	Western Cape State of the Environment Report: Biodiversity section. (Year One).	Co-author and Project Manager	Department of Environmental Affairs and Development Planning

PUBLICATIONS:

Bowie, M. (née Levendal) and Ward, D. (2004). Water status of the mistletoe *Plicosepalus acaciae* parasitic on isolated Negev Desert populations of *Acacia raddiana* differing in level of mortality. *Journal of Arid Environments* 56: 487-508.

Wand, S.J.E., Esler, K.J. and **Bowie, M.R** (2001). Seasonal photosynthetic temperature responses and changes in ¹³C under varying temperature regimes in leaf-succulent and drought-deciduous shrubs from the Succulent Karoo, South Africa. *South African Journal of Botany* 67:235-243.

Bowie, M.R., Wand, S.J.E. and Esler, K.J. (2000). Seasonal gas exchange responses under three different temperature treatments in a leaf-succulent and a drought-deciduous shrub from the Succulent Karoo. *South African Journal of Botany* 66:118-123.

LANGUAGES

Language	Speaking	Reading	Writing
<i>English</i>	<i>Good</i>	<i>Good</i>	<i>Good</i>
<i>Afrikaans</i>	<i>Excellent</i>	<i>Excellent</i>	<i>Excellent</i>

Minnelise Levendal



August 2011