

APPENDIX 1: EAP CV

CURRICULUM VITAE

PAUL FURNISS

ENVIRONMENTAL ADVISOR / ENVIRONMENTAL ASSESSMENT PRACTITIONER

BACKGROUND

Paul is a Director of ABS Africa. He has 16 years environmental assessment and management experience in the energy, water, mining and infrastructure sectors. His project experience includes conducting environmental assessment studies in South Africa, Guinea, Lesotho, Democratic Republic of Congo, Sudan, Namibia, Botswana, Zimbabwe, and Mozambique.

In the role of environmental manager, he has been responsible for the setup and auditing of environmental construction management procedures for a range of developments. Having led various environmental due diligence assessments for mining clients and project financiers, he has a good understanding of international environmental governance requirements including Equator Principles and IFC Performance Standards.

FIELDS OF COMPETENCE

- Environmental and Social Impact Assessments for the energy, water, mining, and infrastructure sectors
- Integration of environmental management principles into EPCM activities throughout the project lifecycle
- Environmental risk and screening assessments
- Environmental permitting
- Environmental auditing
- Environmental due diligence studies
- Strategic environmental assessment
- Integrated waste management

ACADEMIC QUALIFICATIONS

- Bachelor of Agricultural Science in Animal Science: University of Pretoria, 1998
- Bachelor of Science (Honours) in Wildlife Management: University of Pretoria, 1999
- Master of Science in Environmental Science (Water Resource Management): University of Pretoria, 2000

PROFESSIONAL REGISTRATION

Pr.Sci.Nat. Professional Natural Scientist (Environmental Science): The South African Council for Natural Scientific Professions, 2007

Certified Environmental Assessment Practitioner: Environmental Assessment Practitioners Association of South Africa

ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT STUDIES

PRIESKA ZINC COPPER PROJECT – SOUTH AFRICA (2017-2018)

Environmental Assessment Practitioner for an environmental authorisation, waste management license and integrated water use licence for the proposed re-establishment of the Prieska Copper Mine, near Copperton in the Northern Cape Province.

TRI-K GOLD PROJECT – GUINEA (2017-2018)

Environmental Assessment Practitioner for an IFC-compliant ESIA for a greenfields gold mining project in the Mandiana Prefecture of Guinea.

LENASIA SOUTH HOSPITAL PROJECT – SOUTH AFRICA (2016)

Environmental Assessment Practitioner for an environmental authorisation, waste management license and atmospheric emission license for the conversion of a community health centre into a Level 1 District Hospital.

SEDIBENG WATER HARTSWATER REGIONAL OFFICE PROJECT – SOUTH AFRICA (2016-2017)

Environmental Assessment Practitioner for a rapid environmental screening assessment and compilation of an Environmental Management Plan for the new Sedibeng Water Regional Office in Hartswater.

SPRINGS FRESH PRODUCE MARKET EXPANSION PROJECT – SOUTH AFRICA (2016-2017)

Environmental Assessment Practitioner for an environmental authorisation for the expansion of the Springs Fresh Produce Market.

MORUPULE B UNITS 5 & 6 – BOTSWANA (2015-2016)

Specialist consultant for a JBIC and IFC compliant ESIA for a 300 MW thermal coal power plant.

EDF PROJECT TIZERT – MOROCCO (2015-2016)

Technical advisory services for an IFC-compliant ESIA for a copper mine and associated facilities in the Taroudant Province.

PUMPI COPPER AND COBALT PROJECT – DEMOCRATIC REPUBLIC OF CONGO (2014 – 2016)

Project Environmental Manager responsible for a comprehensive update of the Environmental Impact Study for an open-cast copper and cobalt mine, process plant and associated infrastructure.

HASSAI VMS PROJECT – SUDAN (2014 – 2015)

Lead consultant responsible for the legal register, review and gap analysis of environmental and social aspects for a gold mining and processing prefeasibility study at the Hassai Mine.

THUSANANG HOUSING PROJECT – SOUTH AFRICA (2013)

Project Environmental Manager for the EIA and EMP for a 4000 unit residential 1 housing development for Anglo American Platinum, Rustenburg Local Municipality and the Department of Human Settlements.

MANGANESE PROJECT – BURKINA FASO AND CÔTE D’IVOIRE (2013)

Environmental coordinator for a prefeasibility study for a proposed mine, port and rail project for the export of Manganese from Burkina Faso to the Port of Abidjan.

MINERAL SANDS PROJECT – MOZAMBIQUE (2012)

Environmental programme manager responsible for establishing and coordinating all social and environmental studies for a pre-feasibility study for a large mineral sands project in Mozambique.

CONFIDENTIAL PROJECT – MOZAMBIQUE (2012)

Project Environmental Manager responsible for the preparation of environmental and social design criteria and high-level comparison of different rail alignment and port location options for a coal export project.

LANDAU LIFEX PROJECT - SOUTH AFRICA (2012)

Project Environmental Manager responsible for the compilation of non-mineral waste management plan and hazardous substances plan as part of a pre-feasibility study for Anglo American Thermal Coal.

CONFIDENTIAL PROJECT – SOUTH AFRICA (2011-2012)

Project Environmental Manager for a pre-feasibility study for the development of a new iron and steel plant in South Africa including all associated infrastructure. Inputs included a multi-criteria site selection analysis and coordination of all environmental and social assessment inputs to the study.

NATIONAL INTEGRATED RESOURCE PLAN – NAMIBIA (2011)

Environmental advisor responsible for the assessment and description of the environmental and social issues associated with primary and secondary generation options.

150 MW WIND FARM PROJECT – LESOTHO (2011)

Project Environmental Manager responsible for the management and coordination of all environmental studies and environmental approval processes required for a 150 MW wind farm development in the Lesotho Highlands.

TRANSNET CAPITAL EXPANSION PROGRAMME – SOUTH AFRICA (2008-2011)

Mobilised as a full-time Environmental Manager for the Richards Bay region for the HMG-Joint Venture. The latter was established as the EPCM agent for the Transnet Capital Projects operating division of Transnet Limited. The role involved management and coordination of numerous environmental studies throughout the project lifecycle process including an environmental resource economic study for the Port of Richards Bay, environmental authorisation processes and fatal flaw assessments.

NUCLEAR 1 PROJECT – SOUTH AFRICA (2008)

Senior Project Scientist for the EIA and EMP for the proposed construction of a conventional nuclear power station and associated infrastructure in the Western Cape.

PEBBLE-BED MODULAR REACTOR DEMONSTRATION POWER PLANT PROJECT – SOUTH AFRICA (2007-2008)

Project Manager and Senior Project Scientist for the Impact Assessment Phase of the EIA and EMP for the proposed Pebble Bed Modular Reactor Demonstration Power Plant in the Western Cape.

600 MW MORUPULE B POWER STATION PROJECT – BOTSWANA (2008)

Team Leader for the 600 MW Morupule B coal-fired power station in Botswana. Compilation of the ESIA in a manner that complied with Botswana legislation and World Bank Group requirements.

INGULA PUMPED STORAGE SCHEME – SOUTH AFRICA (2007)

Project Manager for seven mining permit applications for borrowpits in the Free State and KwaZulu-Natal Provinces for the Ingula (previously Braamhoek) Pumped Storage Scheme Project.

GABORONE WASTEWATER RECLAMATION PROJECT– BOTSWANA (2007)

Senior Project Scientist for the Gaborone Wastewater Reclamation EIA. This project was aimed at determining the feasibility of reclaiming wastewater for direct potable reuse in Gaborone and its satellite villages.

SELEBI-PHIKWE WATER MASTER PLAN – BOTSWANA (2006)

Senior Project Scientist for the EIA, EMP and Public Consultation Process for the Selebi-Phikwe Water Master Plan.

HYDRA-PERSEUS 765kV POWER LINE EIA – SOUTH AFRICA (2007)

Senior Project Scientist for the EIA for the 260 km 765 kV transmission power line from the Hydra to Perseus Substations.

ENVIRONMENTAL MANAGEMENT, COMPLIANCE MONITORING AND REGULATION

DINGLETON RESETTLEMENT PROJECT – SOUTH AFRICA (2014)

Project Environmental Control Officer responsible for compilation of an Environmental Execution Plan for the Feasibility Study and the setup and implementation of the environmental compliance monitoring requirements for the project implementation phase.

DEA COMPLIANCE MONITORING PROJECT - SOUTH AFRICA (2007)

Task Team Leader for the Department of Environmental Affairs (DEA) Compliance Monitoring Project. The project involved the development of guidelines, systems and programmes for the Compliance Monitoring Directorate of DEA including compilation of a guideline for Emergency Incident reporting in terms of section 30 of the National Environmental Management Act, 1998 (Act 107 of 1998) and a compliance monitoring protocol for environmental authorisations.

JOHANNESBURG CITY PARKS GENERIC EMP - SOUTH AFRICA (2006)

Project Manager and Senior Project Scientist for the Generic EMP for Johannesburg City Parks (JCP). The Generic EMP was developed as a tool for managing the activities of all contractors employed to undertake construction work in the Public Open Spaces within the jurisdiction of the JCP.

ENVIRONMENTAL AUDITS AND DUE DILIGENCE

CONFIDENTIAL PROJECT – SOUTH AFRICA (2017)

Technical due diligence of environmental risks and closure liabilities associated with several operating gold and coal mine assets in South Africa.

CHROME ASSET ACQUISITION – SOUTH AFRICA (2016)

Technical due diligence review of an existing chrome washing facility. The due diligence required identification of environmental and social risks, a review of all existing environmental licenses and consideration of rehabilitation and closure liabilities.

CONFIDENTIAL PROJECT – GUINEA (2012)

Environmental specialist responsible for advising on environmental risks associated with a potential project acquisition of an iron ore resource in West Africa.

SOLAR ENERGY FACILITY – SOUTH AFRICA (2012)

Environmental specialist for a lender's technical due diligence review against local regulations, International Finance Corporation performance standards and Equator Principles for a proposed 30 MW solar energy facility in the Western Cape Province.

WIND ENERGY FACILITY – SOUTH AFRICA (2012)

Environmental specialist for a technical due diligence review against local regulations, International Finance Corporation performance standards and Equator Principles for a proposed new wind energy facility in the Western Cape Province.

SUSTAINABILITY REPORTING

SASOL LIMITED SUSTAINABILITY ASSURANCE PROJECT – SOUTH AFRICA (2009)

Project Manager for the 2009 sustainability reporting assurance engagement for Sasol Limited. The engagement consisted of assuring sustainable performance data from health and safety, environmental and social indicators. Site audits were undertaken at numerous operational sites representative of Sasol's different business units.

ANGLO AMERICAN PLC SUSTAINABILITY ASSURANCE PROJECT – VARIOUS COUNTRIES (2009)

Project Manager for the 2009 sustainability reporting assurance engagement for Anglo American plc. This assurance engagement comprised of site audits at representative operations within Anglo Platinum, Kumba Iron Ore, Scaw, Anglo Coal and Tarmac. The site audits were undertaken in South Africa, Brazil, Chile, Australia and the United Kingdom with twenty sustainability indicators in key performance areas of human capital, natural capital and social capital.

STRATEGIC ENVIRONMENTAL ASSESSMENTS

SEA FOR THE PORT HARCOURT MASTERPLAN – NIGERIA (2008)

Project Manager and Senior Project Scientist for the Strategic Environmental Assessment of the Masterplan for the city of Port Harcourt. The Masterplan was to provide for the development of a new city, appropriately designed for the current and future population of the existing Port Harcourt.

SEA FOR ELECTRICITY DISTRIBUTION INFRASTRUCTURE FOR THE MAGALIESBERG AND SURROUNDING AREAS - SOUTH AFRICA (2007)

Project Manager and Senior Project Scientist for the Strategic Environmental Assessment of the Magaliesberg and Surrounding Areas for Eskom Distribution. The SEA considered the environmental attributes of the study area and provided an environmental planning framework specific to the needs of Eskom Distribution.

SEA FOR HERITAGE PARK - SOUTH AFRICA (2006)

Senior Project Scientist for the Strategic Environmental Assessment of the one million ha Heritage Park. This ecologically sensitive and socio-economically complex Park encompasses Pilansberg and Madikwe Nature Reserve and crosses the border between South Africa and Botswana.

APPENDIX 2: EAP COMPANY EXPERIENCE



Company Profile

www.abs-africa.com

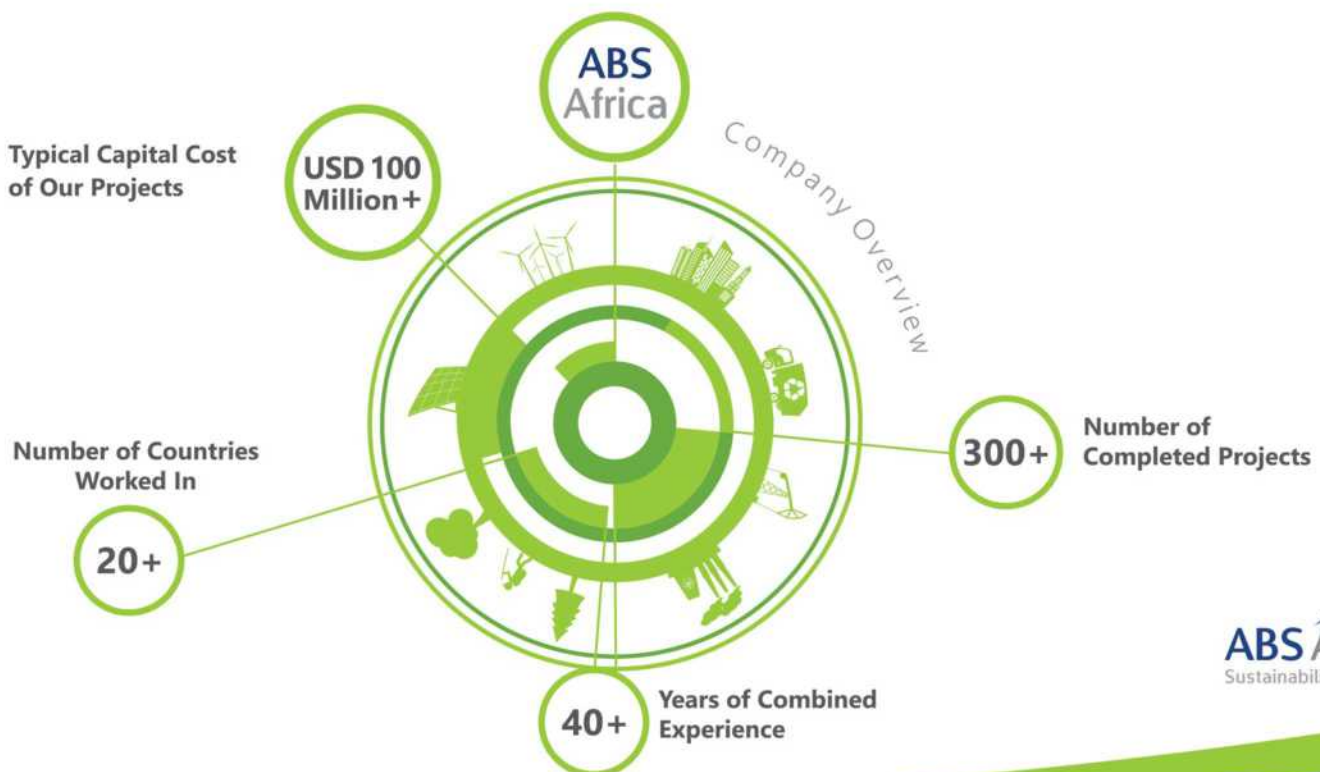
Company overview



Advisory on Business and Sustainability Africa (Pty) Ltd. (ABS Africa) provides advisory and consulting services focussed on sustainable development. The company was established in recognition of the need for business-specific and flexible professional advisory services on sustainability planning and implementation.

With more than 40 years collective experience in the mining, energy, and infrastructure sectors, our capabilities include prefeasibility and feasibility environmental assessments, independent competent persons reporting, environmental licensing, sustainability reporting, due diligence audits, compliance monitoring, resettlement planning, mine closure planning and spatial analysis.

The foundation of our service offering is our value system. We are committed to being unconditionally honest, excellent in the services we offer and available to our clients for as long as they think we can add value to their business.



ABS Africa

ABS Africa offers a complete range of sustainability services to clients in the mining, infrastructure and energy sectors.

We understand the complexity of environmental and social systems and the significant role these play in the long-term sustainability of a business.

From complex Environmental and Social Impact Assessments (ESIAs) to specialist advisory services in water, biodiversity, air quality, soils, and waste, our team of social and environmental professionals have been privileged to work for public and private sector institutions across the African continent.

We have established a network of selected specialist expertise and in-country sustainability professionals across Africa to complement our team. Through this network, we are able to ensure that our service, quality and value proposition remains consistent, regardless of where we work.

Developed from our success in the resources sector, we have gained considerable experience in the application of best practice standards and guidelines including the IFC Performance Standards and Equator Principles.



Our Core Services are as Follows:

- 🌱 Sustainable Development Advisory Services
- 🌱 Due Diligence Investigations and Review
- 🌱 Environmental Assessment
- 🌱 Environmental Audits and Compliance Monitoring
- 🌱 Environmental Management Programmes
- 🌱 GIS, Spatial Analysis and Spatial Planning
- 🌱 Mine Closure and Rehabilitation Planning
- 🌱 Permitting and Licensing



Sustainable Development Advisory Services

From early sustainable development interventions in the mid-1990s to the more recent commitments reached at COP21 and the UN Post-2015 Development Agenda, the ABS Africa team of professionals are privileged to be involved in advising clients on a range of sustainability aspects. We provide advisory services across the sustainable development continuum including sustainability business risk and opportunity assessments, carbon, GHG and climate change planning, and sustainability reporting. ABS Africa is a member of the Green Building Council of South Africa (GBCSA).



Due Diligence Investigations and Review

As trusted advisors to financial institutions, private investors, project owner's and some of the largest project engineering companies in the world, we have applied our expertise in advising clients on the potential risks and mitigation measures associated with acquisitions, third party reviews, recommissioning and other related activities.



Environmental Assessment

Our team of social and environmental professionals have completed numerous Environmental and Social Impact Assessments (ESIAs) in the mining, energy and infrastructure sectors. We have experience in applying our environmental assessment expertise throughout the project development process, from screening studies in concept stage to the successful completion of complex ESIAs compliant with international standards. With a project footprint encompassing most regions in Africa, we are familiar with the need to ensure that the assessment process addresses both in-country legal requirements and the IFC Performance Standards and Equator Principles.



Environmental Audits and Compliance Monitoring

From rapid gap analysis audits to comprehensive facility audits of complex industrial sites, we have experience in conducting audits against license conditions, company management systems and international best practice. We have assisted in the development of a guideline on compliance monitoring for a regulatory agency and provided compliance monitoring services during the construction phase of various developments including residential, port, rail and petroleum storage.

Capabilities



Environmental Management Programmes

Having been responsible for the setup and implementation of environmental management controls for the construction phase of a variety of large infrastructure projects, we are familiar with the challenges of constructing a development within the ambit of overly restrictive or inflexible management measures. From basic construction environmental management plans for small infrastructure developments to IFC-compliant Environmental Management Programmes with Action Plans, we have experience in compiling management plans and programmes which are risk-based, flexible and pragmatic.



GIS, Spatial Analysis and Spatial Planning

Our GIS capability includes a range of services including basic mapping for environmental assessments, environmental monitoring, floodline analysis and environmental permit applications. Spatial analysis, 3D analysis, geodatabases and the classification and interpretation of remotely sensed data is also undertaken. With access to a range of spatial data through our preferred partners, we also advise clients on the selection of the most appropriate spatial data for a particular project application.



Mine Closure Planning and Implementation

Working with selected specialists, ABS Africa has experience in the quantification of closure liabilities, the development and compilation of closure plans, specifications and the more practical aspects of setting up and managing rehabilitation and closure contracts.



Permitting and Licensing

Supported by our selected network of specialists and in-country environmental professionals, ABS Africa has considerable experience in obtaining the various environmental permits that may be required for a development. These include waste management licences, atmospheric emission licences, heritage permits, water use licences and permits for the relocation and/or removal of fauna and flora.





CONTACT US

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Company Profile

APPENDIX 3: SUMMARY LIST OF KEY POLICY AND LEGISLATIVE INSTRUMENTS

Access to Land, Land Use and Development Planning

- Upgrading of Land Tenure Rights Act 112 of 1991
- Less Formal Township Establishment Act 113 of 1991
- Restitution of Land Rights Act 22 of 1994
- Land Reform (Labour Tenants) Act 3 of 1996
- Communal Property Associations Act 28 of 1996
- Interim Protection of Informal Land Rights Act 31 of 1996
- Extension of Security of Tenure Act 62 of 1997
- Fencing Act 31 of 1963
- Prevention of Illegal Eviction from and Unlawful Occupation of Land Act 19 of 1998
- Communal Land Rights Act 11 of 2004
- The Development Facilitation Act 67 of 1995
- Local Government Transition Act 209 of 1993
- Local Government: Municipal Structures Act 117 of 1998
- Local Government: Municipal Systems Act 32 of 2000
- National Building Regulations and Building Standards Act 103 of 1977
- Northern Cape Planning and Development Act 7 of 1998
- Spatial Planning and Land Use Management Act 16 of 2013
- Astronomy Geographic Advantage Act 21 of 2007

Mining and Mineral Rights

- Minerals and Petroleum Resources Development Act 28 of 2002 (MPRDA)
- Minerals and Petroleum Resources Development Amendment Act 49 of 2008
- Mine Health and Safety Act 29 of 1996
- Nuclear Energy Act 46 of 1999
- National Nuclear Regulator Act 47 of 1999

Environmental Assessment

- National Environmental Management Act 107 of 1998 (NEMA)
- National Environmental Management Amendment Act 62 of 2008 (NEMA)
- National Environmental Management Laws Second Amendment Act 30 of 2013 (NEMA)
- National Environmental Management Laws Amendment Act 14 of 2013 (NEMA)
- National Environmental Management Laws Amendment Act 25 of 2014 (NEMA)

Protected Areas

- National Environmental Management: Protected Areas Act 57 of 2003 (NEMPAA)
- National Environmental Management: Protected Areas Amendment Act 21 of 2014
- National Forests Act 84 of 1998

Astronomy Geographic Advantage Act 21 of 2007

Agricultural Resources

- ↻ Conservation of Agricultural Resources Act 43 of 1983
- ↻ Subdivision of Agricultural Land Act 70 of 1970

Biodiversity

- ↻ National Environmental Management: Biodiversity Act 10 of 2004 (NEMBA)
- ↻ Game Theft Act 105 of 1991
- ↻ Animals Protection Act 71 of 1962
- ↻ National Veld and Forest Fire Act 101 of 1998
- ↻ Nature Conservation Ordinance 19 of 1974
- ↻ Northern Cape Nature Conservation Act 9 of 2009
- ↻ Municipal Ordinance PN955 of 1975

Water

- ↻ National Water Act 36 of 1998
- ↻ National Water Amendment Act 27 of 2014
- ↻ Water Services Act 108 of 1997

Roads and Traffic

- ↻ National Land Transport Act 5 of 1998
- ↻ Road Traffic Act 29 of 1989

Pollution

- ↻ Health Act 63 of 1977
- ↻ Hazardous Substances Act 115 of 1973
- ↻ National Environmental Management: Waste Act 59 of 2008
- ↻ National Environmental Management: Air Quality Act 39 of 2004 (NEMAQA)
- ↻ National Environmental Management: Waste Amendment Act 26 of 2014
- ↻ Municipal Ordinance PN20 of 1974

Heritage Resources

- ↻ National Heritage Resources Act 25 of 1999
- ↻ World Heritage Convention Act 49 of 1999