



THE MSA GROUP

Specialist Consultants to the Mining Industry

ENVIRONMENTAL (MINING, OIL AND GAS, INFRASTRUCTURE)

The MSA Group (MSA), has entrenched itself as a trusted and holistic service provider and contractor for over 30 years. MSA's track record is synonymous with quality, technical integrity and safety compliance.

MSA provides specialist services on numerous international and local projects. Its client base includes the largest multi-national companies, private equity and sovereign wealth funds, governments and juniors listed throughout the world. MSA has worked on five continents and in over fifty countries.

MSA's services encompass Exploration and Geology, Mining Studies and Environmental Consulting.

The philosophy underpinning our environmental approach is to assist clients in minimising their environmental risks. We do this by:

- Assisting our clients navigate their way through the complex maze of country and project-specific legal requirements, so as to ensure compliance, as well as
- Developing optimal and innovative solutions to environmental challenges in order to advance environmental, social and financially sustainable solutions, and
- Providing ongoing advice, support and assessments throughout the life of the project.

MSA's experience also ensures compliance with international best practice guidelines as prescribed by the IFC and the Equator Principles.





ENVIRONMENTAL OFFERING

AREAS OF EXPERTISE

MSA's comprehensive environmental service offering includes:

Environmental Management

- Environmental Impact Assessments (EIAs)
- Social Impact Assessments (SIAs)
- Environmental Management Plans (EMPs)
- Integrated Water Management Plans
- Understanding Environmental, Social and Governance risks
- Rehabilitation Costing and Closure Plans
- Environmental Management Systems including ISO 14001 implementation
- On-site Environmental Management through all phases of the operation
- Environmental Monitoring Programs
- Operational and system procedures including incident response plans
- Environmental Health and Safety system implementation

Mineral tenure

- New prospecting right applications
- Renewals Applications
- Conversion of prospecting rights into mining rights
- New mining right applications
- Management of prospecting and mining rights

Feasibility and Due Diligence Studies

- Pre-feasibility and Feasibility Studies: in conjunction with the other units at MSA, we provide the technical and risk quantification of environmental and social liabilities associated with proposed projects and expansions of existing projects
- Environmental Risk Assessments and Due Diligence Assessments: Review and quantify all environmental and social risks such as legal, financial and reputational associated with a business, site, venture or investment. This service includes the identification of mitigation options, ranging from management controls, engineered solutions and financial transfer of risk, to identification of potential risks arising from imminent legislative changes

Permits and Licensing

- Waste License Applications
- Integrated Water Use License Applications and the development of Integrated Waste and Water Management Plans
- Air Emissions License Applications
- Municipal waste water treatment works licensing including waste management licenses and compliance reporting

Legal review, compliance assessments and auditing

- Legal Reviews and Registers: the identification of all applicable environmental and social legislation associated with the Client's products, services and activities, and the evaluation of compliance against such
- Specialist review of environmental processes
- Environmental Compliance Audit Reports
- Monthly, quarterly and annual performance assessments on the approved environmental authorisations
- Closure audits and reporting
- IFC and Equator Principles compliance assessments
- ISO 14001 compliance assessments

Socio-Economic Assessments

- Understanding your Social License to Operate
- Social and Labour Plans (SLPs)
- MSA provides specialised service in terms of identifying social risks associated with proposed activities and advise a client on how to deepen its 'social license' to operate
- This service also includes identification of all Interested and Affected Parties (I&AP's), the design and execution of consultation strategies with I&AP's, advertising and executing any public meetings, compilation of Background Information Documents, recording of minutes and all proceedings of consultations and liaison with stakeholders
- Sustainability assessments
- Public participation as required by legislation and best international practice



ENVIRONMENTAL OFFERING

Training

- Development of environmental training modules
- Environmental Education and Awareness Programmes including training on approved Environmental Management Plans offered on-site to staff as well as mentorship to Client's personnel
- Training of environmental site officers / control officers

Energy and Carbon Management

- Energy and Carbon footprint audits
- Calculation of Corporate or Project Carbon Footprints and Carbon Disclosure Project submissions
- Development of energy and carbon management strategies

OUR EXPERIENCE AND TRACK RECORD

MSA and its associates have successfully delivered the following services:

MINING INDUSTRY

We have delivered environmental services for multi-commodity mining projects in Africa, the Middle East and Asia to clients such as Ma'aden (Saudi Arabia), Nkwe Platinum, Impala Platinum, Veremo Iron Ore, Kumba, Xstrata, Witsgold, Royal Bafokeng Holdings, Blackthorn Resources, Exxaro, Midwinter Resources, West African Minerals Corporation, Ironveld plc, Minmetals First Chrome Mining Co, Metorex, Anglo Platinum, Vedanta Resources.

- The mineral tenure management and environmental management of prospecting right applications
- Facilitating the mining right application and the associated environmental impact assessment process for listed mining and exploration companies
- Due diligence reporting, risk determinations and closure assessments for gold, coal, niobium, platinum, chrome, copper and nickel mines to meet IFC and Equator Principal requirements
- Implementation of Environmental Management System and on site environmental management support for exploration and mining operations in Southern Africa
- Numerous integrated water use licence applications for surface and underground mining operations as well metallurgical plants and urban developments
- The development of integrated waste and water management plans and water optimisation studies
- Waste licence applications and waste minimisation strategies

OIL AND GAS (Including upstream, midstream and downstream sectors)

MSA and its associate consultants have provided environmental and sustainability consulting services and EIA co-ordination for projects internationally including oil and gas processing plants, liquefied natural gas terminals, major oil and gas trunk lines, gas fired power stations, onshore and offshore oil and gas exploration and drilling, and seismic acquisition programmes for Offshore Oil and Gas Exploration.

GHANA

2017: ESIA coordination of a fuel pipeline

CAMEROON / CHAD

2003: Advisory Services: Sustainability Strategy Chad-Cameroon Pipeline

ETHIOPIA / DJIBOUTI

2014: Horn of Africa Pipeline Project Environmental and Social Screening Study

MOZAMBIQUE

2015: Fuel Pipeline Environmental and Social Screening Study

2004 - 2014: Project Review Consultant: Sasol Ltd's Natural Gas Project, Mozambique, for World Bank

2005 - 2012: Environmental Auditor: Environmental Due Diligence of Sasol Temane Mozambique Project Infrastructure

2006 - 2007: EIA Co-ordinator: EIA for Seismic Acquisition for Offshore Oil and Gas Exploration in the Quirimbas Archipelago, Mozambique

2004 - 2009: Environmental Management System implementation: Implement an EMS for the Sasol Petroleum Temane CPF operation and ongoing support



ENVIRONMENTAL OFFERING

PAPUA NEW GUINEA

2009 - 2010: Social Impact Management Implementation Training: Liquefied Natural Gas Project for ExxonMobil

SOUTH AFRICA

2007 - 2010: EIA Co-ordinator: EIA / EMP for the Transnet National Multi-Product Pipeline, 540km pipeline

2006 - 2008: Advisory Services: Sasol Ltd on Sustainability Strategy and Public Reporting

2005: Advisory Services: ENGEN Sustainability Reporting

2003 - 2004: Project Review Consultant: Strategic Environmental and Social Assessment of the Development of the Ibhubezi Gas Fields off the West Coast of South Africa, for PetroSA

INDUSTRIAL AND INFRASTRUCTURE

Industrial and Infrastructure projects range from various township developments to power transmission and distribution, road and water and sewage infrastructure networks with clients such as Basil Read, Vela VKE, PD Naidoo and Associates, Arcus Gibb and local municipalities. These projects include:

- Implementation of Environmental Management System and on site environmental management support for operations in Southern Africa
- Numerous integrated water use licence applications for urban developments
- The development of integrated waste and water management plans
- Waste licence applications and waste minimisation strategies
- Facilitating environmental and impact assessment application processes for large township developments and associated infrastructure
- EIA co-ordinator on projects including housing developments, cement production and Power Transmission Lines

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ISO 9001:2008 Certified.

OHSAS 18001 Certified.

SANAS ISO/IEC 17025 Accredited.

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