

# CES ENVIRONMENTAL CONSULTING IN MOZAMBIQUE

CES WAS ESTABLISHED IN 1990 WHEN WE WERE INVOLVED AS LEAD CONSULTANTS FOR A LARGE MINERAL MINING ENVIRONMENTAL IMPACT ASSESSMENT IN SOUTH AFRICA.



CES started working in Mozambique in 1995, on a large mineral mining EIA in Zambezia Province, and have been involved in projects in Mozambique every year since then.

We are well acquainted with the EIA process and regulations in Mozambique. CES opened an office in Maputo in early 2012 to consolidate our presence in Mozambique. We are a certified environmental assessment consultant with the Mozambique environmental agency, MITADER (License Number 08/2019). CES is also registered with DINAB (License Number 0031EC/2017) as a resettlement planning consultant.

**We are able to offer a wide range of environmental and social advisory services in Mozambique, including:**

- Environmental, Social and Health Impact Assessments (ESHIA's);
- Environmental and Social Impact Assessments (ESIAs);
- Environmental Risk Assessments;
- Environmental Auditing;
- Environmental Monitoring;
- Social Impact Assessments (SIAs);
- Socio-Economic Baseline Studies (SEBS);
- Resettlement Action Plans (RAPs)

Our principal area of expertise is in assessing the impacts of development on the natural, social and economic environments and in so doing we have made a positive contribution towards environmental management and sustainable development in Mozambique and many other African countries.

CES staff are all exceptionally well qualified, with many being recognised experts in their particular disciplines. Several of our staff hold PhD degrees, and most have post-graduate qualifications in the environmental and social sciences.

For more information see [www.cesnet.co.za](http://www.cesnet.co.za)

## A SELECTION OF ENVIRONMENTAL WORK UNDERTAKEN BY CES FOR VARIOUS CLIENTS IN MOZAMBIQUE

### **Kenmare Moma titanium mineral sands mining projects, Nampula Province (2000 - current)**

We have provided E&S advisory services to Kenmare Resources since conducting the first ESIA and Resettlement Action Plan (RAP) for their heavy mineral mine at Moma in 2000. We prepared additional ESIA's for the main 250km powerline between Nampula and the mine, the Phase II expansion and the scoping studies for the Phase III expansion. The latter includes three new deposits along a 70km length of coastline. In 2010 CES was contracted to assist the mine to meet their commitment to comply with the IFC Performance Standards (2006). This assignment involved a comprehensive E&S gap analysis and extensive technical guidance on development of an IFC-compliant Environmental and Social Management System for the mine. Full compliance was achieved in 2011 and CES has recently completed a gap analysis against the updated 2012 IFC Performance Standards. The company has also been actively involved in the development and execution of annual monitoring programmes for the facility including wetland biomonitoring, terrestrial biodiversity monitoring, air quality monitoring, review of water quality monitoring data and regular marine ecological & fisheries monitoring. The rehabilitation strategy and plan for the mine were also developed by CES who have also been involved in auditing the success of rehabilitation efforts prior to return of the mined areas to the local communities. CES was appointed in 2017 to undertake the ESIA reporting and resettlement planning for the Pilivilli deposit that forms part of the larger Phase 3 expansion that is currently still in process.

### **Suni Resources Montepuez graphite mining projects, Cabo Delgado Provinces (2016-2019)**

Suni Resources S.A. is a Mozambican subsidiary company of the Battery Minerals Group and is focused on developing graphite mining projects in Mozambique. Suni Resources S.A. intend to develop a graphite mine in the Ancuabe and Balama Districts located near to the city of Montepuez in Cabo Delgado Province, northern Mozambique. Each deposit contains large flake graphite which is ideal for creating cost efficient battery grade anode material which will be sold into the American and Asian markets for primary use

in Lithium ion storage batteries. Lithium ion storage batteries are used for clean, renewable energy. CES completed the ESIA process for the Ancuabe project in 2017 that subsequently received environmental authorisation, with the Balama project ESIA process currently being finalised.

### **Triton Minerals Nicanda Hills and Ancuabe graphite mining projects, Cabo Delgado Provinces (2014-2018)**

Triton Minerals plan to develop two graphite mines at the Nicanda Hills deposit and its Ancuabe deposit located in Cabo Delgado Province in northern Mozambique. CES were appointed to conduct both ESIA's, as well as the resettlement planning for the Nicanda Hills project.

### **Baobab Resources Tete iron ore project, Tete, Province (2013-2016)**

CES was appointed to conduct the Environmental, Social and Health Impact Assessment (ESHIA) for the now approved Tete Iron Ore Project located in Tete Province, Mozambique. Numerous specialist studies were conducted to assess the environmental and social impact of the mine and associated infrastructure which included waste dump, landfill site, tailings storage facility, slag dump, accommodation camp as well as a 58km corridor containing a haul road and power line.

### **Green Resources Forestry Environmental and Social Management System (ESMS) Audits, Niassa and Cabo Delgado Provinces (2015-current)**

CES retains a contract to conduct annual ESMS performance audits on Green Resources forestry operations in Lichinga, Niassa Province, as well as their operations located near Nampula (including their Ugandan and Tanzanian operations) on behalf of a number of European banks funding the project. monitoring and reporting on company compliance to the ESMS and associated action plans are the core tasks of these audits, along with providing technical assistance to the company and its personnel. This has been ongoing from 2015 to date.

### **Eco Farm Sugar Mill, Sofala Province (2014-2016)**

CES conducted an ESIA for the EcoFarm Irrigation and Organic Sugarcane Project in the District of Chemba, Sofala Province, Mozambique. The ESHIA and supporting documents were completed in 2014 and were not submitted to the Ministry or subjected to public disclosure due to the expansion of the scope of work to include a sugar mill and power plant. CES produced an Addendum ESHIA to accommodate these changes, and the reports and supporting documents were submitted to MITADER for approval.

### **Sasol Nhangozha Coastal Stream Critical Habitat Biodiversity Assessment, Inhambane Province (2015)**

In 2014, Sasol commissioned an ESIA for an expansion of the Natural Gas Project in Inhambane Province, Mozambique. The specialist studies undertaken by this firm identified a 'Critical Habitat' within the area of direct influence of the project. The concept of a 'Critical Habitat' is defined in the IFC's Performance Standard 6 and refers to an area of great biological importance based on a number of specific criteria. In the initial botanical biodiversity studies prepared for the EIA, it was argued that the Nhangonzo coastal stream, which lies due west of Bazaruto Island, together with its catchment, which drains an area of some 4,339 ha, meets the IFC criteria for a Critical Habitat. CES was contracted to provide a Critical Habitat Assessment and second opinion of the site using the IFC performance standard guidelines.

### **Petroleum Geo-Services (offshore 3D seismic survey in the Zambezi Basin (2015)**

CES conducted the ESIA for the proposed oil and gas offshore seismic surveys in the Zambezi basin on behalf of the client who is a European bases oil and gas sector service provider.

### **Crookes Brothers ESMS and Resettlement Action Plan development, Zambezia Province (2015 - 2016)**

CES was appointed to develop an Environmental & Social Management System (ESMS) and RAP for

Crookes Brothers. The operation is a grains, fruits and nut growing agricultural operation located near the town of Gurue.

### **Green Resources Forestry, Niassa and Cabo Delgado Provinces (2012-2016)**

In 2014 CES completed the EPDA and ESHIA for the establishment of 30,000 ha of new forest plantations in Niassa Province (Lichinga) for Niassa Green Resources. In 2015 CES upgraded the Lurio Green Resources' ESIA to lenders standards for the establishment of a 126,000 ha of new hardwood forest plantation. This upgrade included the production of a Global Resettlement Framework, Pilot RAP, Site Specific templates for ESHIA and ESMP, training and various management plans including a Monitoring Plan, Cultural Resource Management Plan, Grievance Mechanism and a Stakeholder Engagement Plan. These studies were completed to comply with Mozambican standards, as well as international standards (IFC; African Development Bank; European Investment Bank; Forest Stewardship Council Policy and Standards; Climate, Community and Biodiversity Alliance Standards; and the Clean Development Mechanism Project Standards and activities).

### **Syrah Resources graphite mining project, Cabo Delgado Province (2013-2015)**

CES conducted an ESHIA for the proposed Syrah Resources graphite mine located outside Balama in the Montepuez District. In addition to the SHIA, CES produced the RAP and ESMP documents for submission to MITADER. The project was approved in 2015 and is currently in full operation.

### **Mozambique Anchor Tourism Investment Programme (2009-2010)**

The Government of Mozambique identified a number of tourism sites as part of a joint initiative with the Ministry of Tourism and the IFC. The objective of the program was to secure quality tourism investments in Mozambique through the development of eco-tourism, and tourism resort development. CES were appointed by the IFC as the lead consultant and used a strategic framework approach to identify sustainable development options on two sites identified by the Anchor Program, at Crusse / Jamali in Nampula Province and Inhassoro in the Inhambane Province. Several environmental and social studies were undertaken to identify opportunities, risks and constraints

for sustainable tourism. A proposed way forward from a social, environmental, economic and institutional perspective was presented. This approach was developed to help ensure that all positive outcomes of the development process could be enhanced, and that the environmental and social constraints of the site would be considered in designing future tourism ventures at the sites.

### **Grown Energy bio-ethanol project, Sofala Province (2007 – 2011)**

CES originally prepared two comprehensive pre-feasibility assessments for two sites selected for the proposed development of a bio-ethanol plantation and processing facility near the Zambezi River. A preferred site was selected and CES completed the EPDA, Specialist Reports and ESHIA for this site. The reports met all national and international requirements and were well received by the Dutch Development Funding Institute, the FMO.

### **GS Cimentos, cement quarry and factory, Maputo Province (2010)**

The GS Cimentos project comprised two parts, the first a limestone quarry in the Bela Vista / Salamanga area of the Matutuine District in Maputo Province, and the second a cement manufacturing plant, located in the Beluluane Industrial Park near Maputo. CES prepared both ESIA's, and all but two of the specialist studies.

### **Jatropha Dutch Consortium Biofuel project, Sofala Province (2009)**

CES managed and coordinated the ESIA process for a large-scale biofuels project in Sofala Province, Mozambique. The EPDA was completed, and the report met all international requirements. The first phase specialist studies (Social Impact Assessment and Ecological Impact Assessment) were also completed. By integrating this information with the technical soils and agricultural studies (and using remote sensing) CES assisted in identifying suitable areas for a sustainable Jatropha Estate and out-grower development. The ESIA was not completed as the project did not proceed.

### **Rio Tinto baseline ecological study, Inhambane Province (2009)**

CES prepared a baseline ecological study in two areas located along the coastline between Xai Xai and Inhambane, as part of an Order of Magnitude study. Studies included vegetation and biodiversity assessments, wetland ecology, fish, aquatic invertebrates (the study area has significant coastal lakes) and water quality monitoring. The information, together with other technical and geological information was used by Rio Tinto to decide on whether to move forward to pre-feasibility.

### **SABMiller plc and Cervejas de Mocambique Brewery in Nampula, Cabo Delgado Province (2008- 2010)**

CES completed the ESIA process for the proposed construction of a brewery in Nampula, Mozambique.

### **Corridor Sands Limitada heavy minerals sands mine, Chibuto, Gazi Province (1998- 2002)**

CES completed the Full Environmental Feasibility Study, which assessed all environmental and social impacts related to establishing a large scale integrated heavy mineral sands mine, mineral separation plant and smelter operation in the Chibuto district. CES coordinated and managed the entire EIA process, provided specialist input into a number of baseline studies, and managed and coordinated the production of the specialist volume. In addition to this, CES completed additional EIAs for this project for a power line, rail link and bulk cargo facility.

### **TiGen heavy minerals sands mine, Zambezia Province (1995- 1999)**

This project was initiated in 1995 with a pre-feasibility environmental assessment for a proposed heavy mineral mine in the Moebase area of Zambia Province. Subsequent to this, CES managed the entire ESIA process, and undertook six of the 14 specialist studies in house. The EIA was one of the first large scale EIAs undertaken in Mozambique, and when initiated pre-dated legislative requirements. An environmental licence was issued, but BHP Billiton did not proceed with the project.



#### **FOR MORE INFORMATION, CONTACT US ON:**

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