



BACKGROUND INFORMATION DOCUMENT

ENVIRONMENTAL PRE-VIABILITY AND SCOPE DEFINITION (EPDA) FOR DEVELOPMENT OF EUCALYPTUS PLANTATIONS IN THE ZAMBÉZIA PROVINCE OF MOZAMBIQUE

BACKGROUND INFORMATION DOCUMENT AND INVITATION TO COMMENT

Due date for comment: 31 January 2010



sappi



This document is available in English and Portuguese

INTRODUCTION



Sappi Manufacturing (Pty) Ltd (Sappi) is the Southern African division of South Africa-based global pulp and paper company, Sappi Limited. Sappi is investigating the feasibility of establishing a project in the Zambézia Province of Mozambique to position the company to meet the growing global demand for certified forest products.

The proposed project will take place in two phases:

Phase 1: To establish, over the next 10 to 15 years, about 150 000 hectares of *Eucalyptus* plantations (commonly known as gum trees, native to Australia) in which local communities will participate as part of an outgrower scheme.

Phase 2: To construct a modern pulp mill. The mill will use the wood from trees in the new plantations to produce pulp for the export market. This phase will only go ahead if Phase 1 is successful and economic conditions are good.

This Background Information Document focuses on Phase 1 of the project, namely the proposed plantation forestry.

The Mozambique Environmental Impact Evaluation Regulations (Decree 45/2004 of 29 September 2004) require Sappi to conduct an Environmental and Social Impact Assessment (ESIA). The purpose of the ESIA is to provide Sappi and the authorities with an understanding of the potential positive and negative environmental and social impacts of the proposed project. Sappi may only go ahead with the project if the ESIA is approved by MICOA, the Ministry for the Coordination of Environmental Action (Ministério para a Coordenação de Acção Ambiental).

The first phase of the ESIA is an Environmental Pre-viability and Scope Definition study (EPDA) or scoping study. The purpose of the scoping study is to provide MICOA with a report that describes the project and the receiving environment, and a preliminary indication of the potential environmental issues. In addition to this the report will specify the specialist studies that will be required, as part of the ESIA, in order to better understand these issues. Information provided by the study will assist Sappi to decide whether to pursue the project further. The information will also be assessed by MICOA in terms of Article 9 of Decree number 45/2004. Should MICOA approve the EPDA, then the specialist studies for the ESIA may proceed.

Sappi has appointed Golder Associates Africa, an independent environmental consultant with an office in Mozambique, to conduct the EPDA. The local Golder Office, Golder Associados Moçambique Limitada is registered with MICOA.

Purpose of this document

This Background Information Document provides stakeholders with information about the proposed plantation project. It describes the project and gives an overview of the EPDA process. The document forms part of the scoping study and provides stakeholders with an initial opportunity to comment on the proposed project. During the ESIA, stakeholders will have further opportunities to comment on the project.

If you would like to comment, please complete the enclosed comment sheet or contact the public participation office by letter, telephone or e-mail.

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Motivation for the project

The world-wide demand for forest products, such as paper and packaging, increases continuously. This provides Sappi with an opportunity to expand its forestry operations in southern Africa.

The company identified the Zambézia Province in Mozambique as a suitable area for plantation forestry, because:

- It has suitable growing conditions for fast-growing plantations;
- It is close to its operations in South Africa; and
- The project will contribute to economic growth in southern Africa, which is an ideal that Sappi supports.

Project history

In 2008, Sappi conducted initial studies and identified the Gurué, Alto Molócue, and Gilé Districts of Zambézia Province as suitable areas for fast-growing *Eucalyptus* plantations.

Sappi then consulted with the relevant Mozambican authorities to establish which land within these areas would potentially be available for the proposed 150 000 hectares of plantations.

The National Directorate of Geography and Cadastre (DINAGECA) gave an initial indication of portions of land that could be available.

Sappi then appointed a Mozambican company, Rural Consult Lda to consult the communities in these areas and to confirm the availability of the land.

The next step in the process is for Sappi to acquire the rights to use the available land. This process started in February 2009, with assistance from Rural Consult, and has included the following steps:

- desktop identification of potential land portions with the Cadastral Services in Quelimane (SPGC);
- reconnaissance work by field teams from Rural Consult, provincial Cadastral Services (SPGC) and District officials in mid-April 2009 to confirm the availability of the identified areas with input from community leaders;
- community meetings facilitated by Rural Consult to determine community willingness to make land available for the project;
- identification of areas suitable for planting *Eucalyptus* trees; and
- trial plots are now being established in order to test the response of the selected tree species to the growing conditions, and about 40 hectares will be planted.

WHO IS Sappi?

Sappi is a global pulp and paper company and is Africa's leading forest products company. It started in South Africa in 1936. Today it is listed on the Johannesburg and New York Stock Exchanges.

The company manufactures wood fibre products on four continents. It has 39 offices around the world and supplies paper to customers in over 100 countries. It also manages and owns over 550 000 hectares of timber plantations in South Africa and Swaziland.

Sappi produces 6.9 million tonnes of paper per year. It is the leading producer of coated fine paper, which is used in books, brochures and magazines. Its products are also used in plastics, fabrics, and pharmaceutical products. Other products include newsprint, uncoated graphic and business paper and packaging.

Sappi employs 17 400 people in its operations around the world.

Coated fine paper



Packaging



RESPONSIBLE PLANTATION MANAGEMENT

Sappi is a member of several internationally recognised certification programmes, such as:

- Forestry Stewardship Council (FSC);
- Sustainable Forestry Initiative (SFI); and
- Programme for the Endorsement of Forest Certification (PEFC).

These programmes ensure that Sappi's products are produced using sound environmental and social practices.

All wood grown on Sappi owned and managed land in southern Africa is FSC certified. The FSC is recognised internationally and is the only forest certification scheme supported by the World Wildlife Fund for Nature (WWF), Greenpeace and the Forests and European Union Resource Network (FERN). The forestry plantation project proposed in Zambézia Province of Mozambique will also be FSC certified.

In addition to this, Sappi will investigate how these plantations and their related activities can contribute to reducing global warming through providing a carbon sink (carbon sequestration).



PROPOSED *EUCALYPTUS* PLANTATION PROJECT



Location

Figure 1 shows the location of the land portions (blue areas on the map) within Gurué, Alto Molócue, and Gilé Districts that are being investigated for the proposed Sappi plantations. Together these areas total approximately 260 000 hectares. These areas have suitable soils and enough rainfall for fast-growing *Eucalyptus* plantations.

Various studies will be conducted on these land portions to find the most environmentally, socially and technically suitable 150 000 hectares of land required for the plantations. It may also be necessary for Sappi to look outside of these land portions at other areas within the larger project area (shown by the purple outline on the map). Further studies will be needed for this.

Most of the area is currently used by local communities for small-scale farming (beans, cassava, tobacco, bananas, maize, and rice) and charcoal making. There are also tea plantations and other forestry plantations in the larger project area.

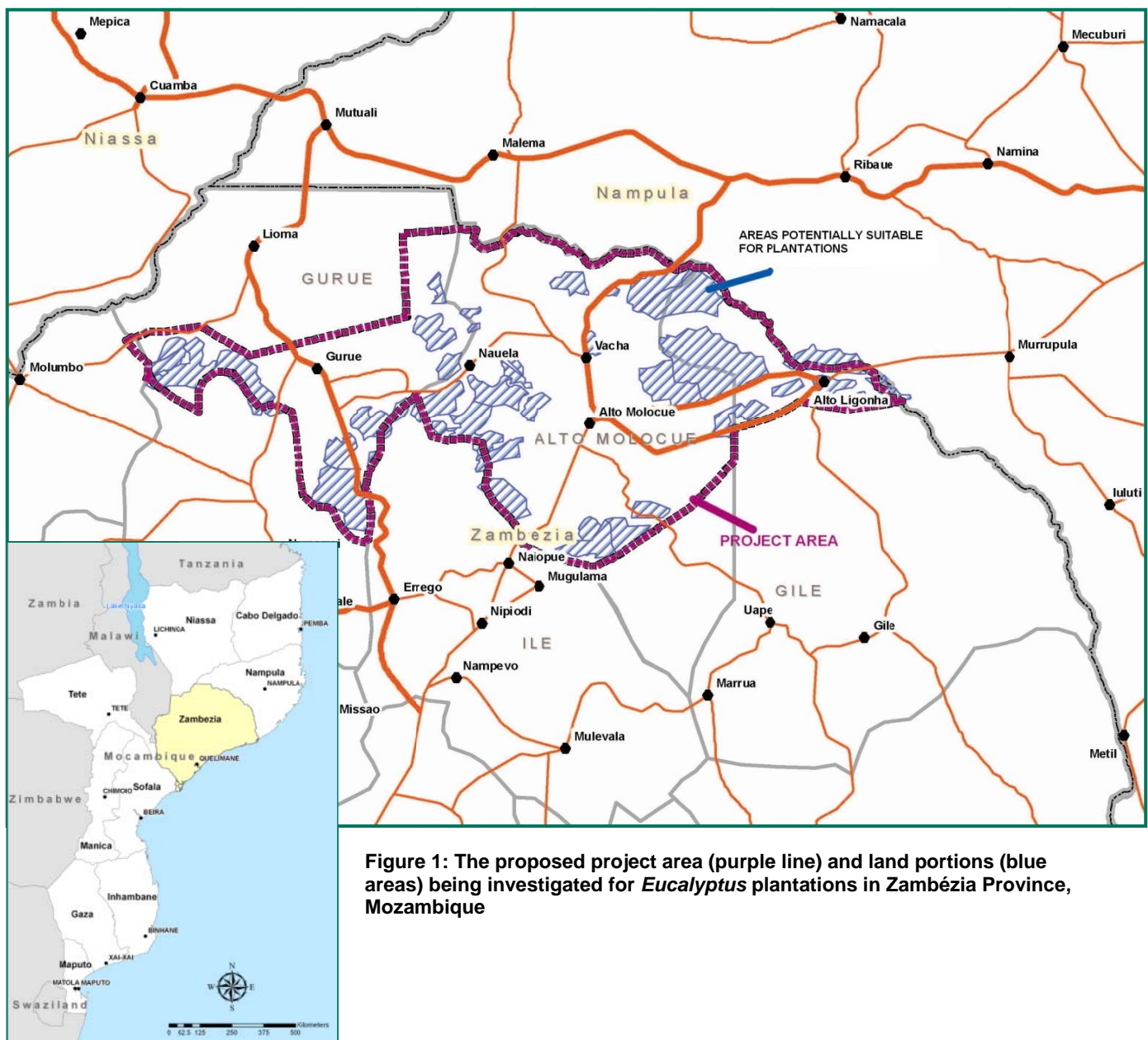


Figure 1: The proposed project area (purple line) and land portions (blue areas) being investigated for *Eucalyptus* plantations in Zambézia Province, Mozambique



PROPOSED *EUCALYPTUS* PLANTATION PROJECT

How will the plantation project work?

Of the 150 000 hectares of plantations that Sappi proposes to establish, at least 50% (75 000 hectares) will be managed as an outgrower scheme in partnership with the communities in those areas.

Participants in the outgrower scheme will provide the land and grow the trees. Sappi will provide them with seedlings and technical support to establish and maintain the plantations until the trees are ready for harvest. After harvesting, Sappi will buy the timber from the farmers.

The other 75 000 hectares will be established and managed directly by Sappi on land leased from the government. All forestry operations will be carried out according to Sappi's best operating procedures and standards.

How communities can participate in the outgrower scheme

Community members will be able to choose one of three outgrower scheme options:

- As individual or family farmers, providing 5 to 10 hectares of their own land;
- As community groups, providing 5 to 100 hectares of their own land;
- As commercial farmers, providing 100 to 1000 hectares of their own land.

HOW THE OUTGROWER SCHEME CAN WORK?

Sappi has a successful outgrower tree-farming scheme called *Project Grow* in South Africa. The project started in 1983 and is still running.

Subsistence farmers who participate in the scheme receive free seedlings, a farming loan, technical advice from Sappi, and a guaranteed market to sell their trees when they are harvested.

The growers receive an advance payment to be able to maintain their plantations for the 8 to 10 years it takes for the trees to mature and be harvested. In addition, outgrowers also receive upfront payment of a percentage of the expected profits.

Sappi buys the harvested timber from the growers at a market-related price, less the advance payments.

Outgrowers benefit by being paid for the use of their land and from the profits of the timber sales. The community benefits because the scheme provides employment for community members.

These photos show community members in South Africa with harvested timber from the Project Grow outgrower scheme. The outgrower scheme proposed in Zambézia Province will be similar to Project Grow in South Africa.



Sappi's Outgrower Scheme encourages entrepreneurship

Establishing the *Eucalyptus* plantations



Photograph 1: A typical nursery in which the *Eucalyptus* tree seedlings will be grown, also showing 3 to 6 month old seedlings.

Species to be planted

The species of tree that will most likely be planted is *Eucalyptus grandis x urophylla*. It is most suited to the climate of Zambézia Province and takes about 8 to 10 years to be fully grown to about 25 m in height.

Tree seedlings will be grown in a nursery (see Photograph). The nursery will be designed based on standards used in South Africa and will be able to produce about 20 million seedlings per year.

PROPOSED *EUCALYPTUS* PLANTATION PROJECT



Preparing the sites

Areas earmarked for plantations will be cleared using large machines like bulldozers, as well as by hand. Trees and shrubs will be cut down and made available to local people to be used as timber or to make charcoal.

Planting the seedlings

Teams of people will dig individual holes either mechanically or manually and plant the seedlings (see Photograph). Standard manual planting methods and small amounts of fertilizer will be used.

Plantation maintenance and management

Appropriate chemicals will be used to control termites and other pests. Weeds will be controlled by mechanical and chemical means. Fire fighting infrastructure like water points, access roads and airstrips will be provided in each plantation area.

Harvesting

Once fully grown, after 8 to 10 years (see Photograph), the plantations will be harvested mechanically according to best practice methods (see Photograph). The harvested timber will be stored in depots.

Transport

The harvested timber will be transported by road from the timber storage depots to the proposed pulp mill. The location of the mill is not known at this stage.

How much water will be required?

The nursery will require approximately 170 000 cubic metres (or 170 million litres) of water per year to irrigate the seedlings. This water will be sourced from streams and rivers or boreholes.

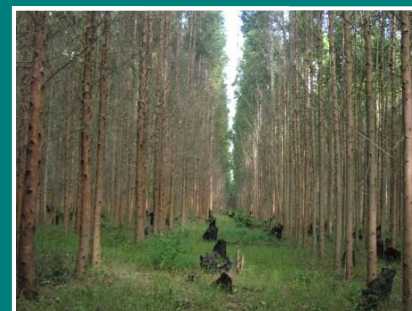


Teams of people ready to plant seedlings



These seedlings are about three months old

Fully grown 8 year old *Eucalyptus* trees, about 25 metres high.



Mechanical harvesting of fully grown *Eucalyptus* trees.

Harvested trees in the plantation before transportation to the depot.



Depot where harvested timber is stored before being transported to the pulp mill.



PROPOSED *EUCALYPTUS* PLANTATION PROJECT

What infrastructure will be required?

The main infrastructure required to establish and manage 150 000 hectares of timber plantations are:

- a large nursery to grow the *Eucalyptus* seedlings;
- three to four forestry stations, each with a small office complex, a workshop for servicing vehicles, store rooms (chemical store, oil store and equipment store), vehicle parking facility and fuel station;
- depots to temporarily store timber before it is loaded onto trucks and sent to the pulp mill;
- roads, and bridges across streams;
- waste management facilities for general waste from forestry stations and staff residential areas;
- water storage facilities;
- fire fighting facilities; and
- staff housing.

Employment and training

Based on current plans it is expected that once the project is fully operational, it will provide employment for up to 64 full-time senior forestry operational and technical staff.

An additional 2200 – 2500 permanent operational jobs will be created for local people once the project is fully established. It may also be necessary to employ some seasonal workers, especially during the initial stages of the project.

Sappi expects that there will also be a significant number of indirect jobs created as a result of the goods and services required by the plantation operations.

In line with its commitment to skills development and training, Sappi would train all employees so that they are skilled to carry out plantation work. Sappi would also support the development of a plantation based curriculum at local universities and agricultural colleges so that people interested in a career in forestry can receive formal training in Mozambique. In addition, individuals and communities will be trained and supported technically to participate in outgrower schemes.

Proposed project scheduling

The broad estimated timeframes for the overall plantation and pulp mill project are:

- **2008 to 2010** – Assess the feasibility of the project, apply for rights to use the land, and conduct an Environmental and Social Impact Assessment.
- **2011 to 2023** – Should the ESIA be approved by MICOA and the project is found to be feasible, establish nurseries and plantations up to harvesting of the first crop.
- **2012 to 2014** - Fulfill all legal requirements for establishment of pulp mill, including ESIA.
- **2020 onwards** – Construct and operate pulp mill.



Public consultation

The purpose of public consultation during the EPDA is to create awareness of the proposed project, benefit from people's local knowledge, and to receive issues of concern and suggestions for enhanced benefits from stakeholders. These contributions will assist to define the terms of reference for the Specialist Studies that will be conducted after the EPDA.

Technical studies

The environmental and social studies that are prepared for the EPDA will consist primarily of a review of existing information and preliminary field visits, to aid the professional team to develop an understanding of potential issues affecting the proposed plantation project. Aspects that will be considered include, among others, loss of natural resources through clearing of miombo woodlands, loss of agricultural land for food production, resettlement issues, the implications of increased demand for surface and groundwater resources, the effects of the project on cultural traditions and heritage and the effect of the project on the local and national economy.

The findings will be collated into an EPDA Report which will define the terms of reference for the ESIA and which will be available to stakeholders for comment before being submitted to MICOA for consideration. If MICOA approves the EPDA and Sappi find that the project is feasible, they may proceed with the ESIA.

The steps in the EPDA process are shown in Figure 2.

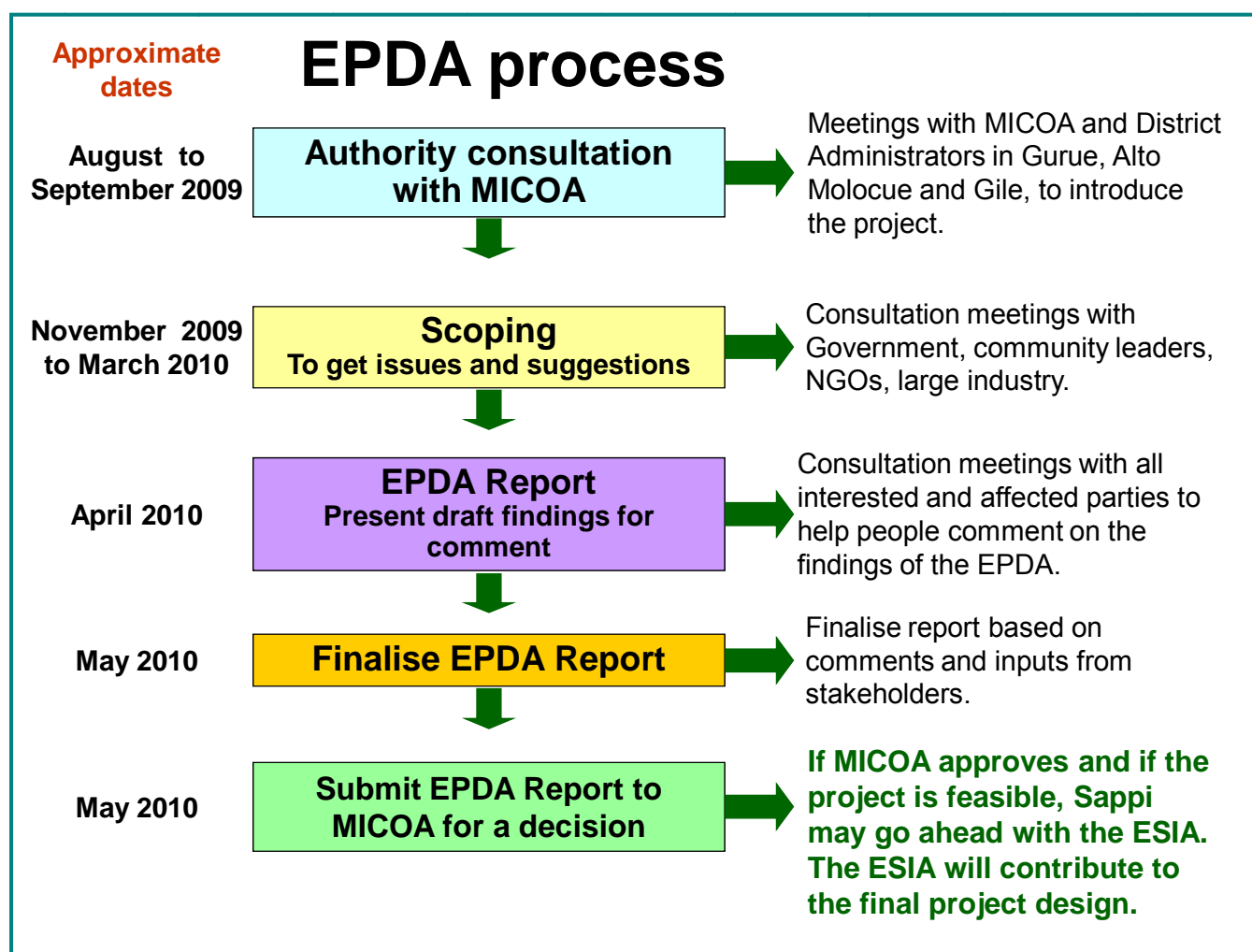


Figure 2: The steps in the EPDA process