



**Green Resources Limited (GRL)**

## **Public Summary of the management plan**

### **1.0 Introduction**

Green Resources Limited is a subsidiary company of Green resources AS Norway. It is a private and profit oriented company and was established in 1996. GRL is operating in the Southern Highlands of Tanzania and currently operate five plantations. These are Idete Forest Plantation (IFP) and Mapanda Forest Plantation (MFP) in Mufindi District -Iringa Region, Uchindile Forest Plantation (UFP), Kitete Forest Plantation (KFP) and Masagati Forest Plantation (MaFP) and are located in Kilombero District, Morogoro region. The main objectives of the company are to establish and manage forest plantations for sawn timber and poles production for profit, to mitigate climate change by reduction of greenhouse gases through carbon sequestration, to contribute towards socio-economic well being of the communities residing around its forests and to develop local infrastructure including roads, bridges, public buildings, water supply and communication systems and to promote environmental conservation.

In order to achieve the above objectives, GRL is involved in tree planting and implementing quality forest management systems which are environmentally friendly and economically viable, at the same time safeguarding social benefits and producing quality forest products according to acceptable international standards. To ensure the best forest practices are applied in the management of the plantations, GRL has committed to comply with the ten (10) principles and 56 criteria for forest management developed by the Forest Stewardship Council™ (FSC™) are adhered to. To date, Mapanda, Uchindile and Idete Forest Plantations are FSC certified, certificate number SGS-FM/COC-005066. Other plantations are in the process of implementing FSC principles and criteria in preparation for future certification.

### **2.0 Forest Management and Resources**

All plantations are owned by GRL under lease title of 99 years. GRL manages its forest plantations and patches of natural forest found in the plantations areas to ensure sustainable forest management. This is done through implementation of national policies

and company policy by analyzing the existing situation through consultation, dialogue with stakeholders, survey and continuous data collection with regards to human, physical, climate and financial resources. GRL improves social economic conditions of the surrounding villages in plantation areas by providing employment to the rural communities. In addition to job opportunities to the local communities, GRL contributes funds and materials for improving infrastructure e.g. roads, schools and health services. These contributions are in addition to wages and other social benefits provided to the labor force. Other social development areas to be assisted are worked out together with the local village after consultation with communities for the future. At National level, GRL contributes to the national revenues through various taxes and fees. The company will also produce wood products for the local and export market and create downstream jobs in the transport, engineering and other service sectors.

### **3.0 Plantation Management**

In the management system, GRL involves mostly in planting of *Eucalyptus* and *Pinus* species, and other proven promising species, including indigenous species, according to the planting plan. Typically, a spacing of 3m x 3m and 2.5m x 2.5m for *Pinus* and *Eucalyptus* species are utilized respectively. Whereby selection of these species are based on site suitability and market demand. Tree seeds were obtained from Tanzania Tree Seed Agency, Zimbabwe, South Africa, Kenya, Costa Rica, Argentina and Brazil. The plantation management activities such as nursery, plantation establishment, tending operations, fire protection, road construction and maintenance, and so on, are carried out according to the Work Instructions and Guidelines for plantation operations document prepared by GRAS. To date the area planted since the onset of the activities in all five projects is approximately 13,000 ha.

### **4.0 Monitoring of forest growth and dynamics**

In the provision for monitoring of forest growth and dynamics, survival assessment for the planted areas is normally carried out about two to three week after planting and further survival assessment is carried out after 6 months. The permanent sample plots

(PSPs) are established and maintained mainly to monitor volume increment and the quality of the trees in relation to the objectives of management in the plantation.

### **5.0 Rationale for rate of annual harvest and species selection**

Site index should be used in older stands to estimate the volume to be harvested through commercial thinning. Site index within the plantation will be determined through the established of permanent sample plots. Rate of annual harvesting will be based on market demand, rotation age of the species, sustainability and disaster occurrence. The equipment to be used during harvesting activities will be appropriate to the site conditions and the nature of the product to be harvested.

### **6.0 Forest Protection and Environmental Management**

GRL is committed to protect the rare, threatened, and endangered species in order to adhere/comply with the FSC standard, national legislation and international treaties and agreements. The plan for the identification and protection of RTE has been developed. The goal for managing rare species in the GRL plantations is to protect and conserve globally, nationally, regionally and locally rare, threatened, and endangered species and their critical habitats by applying careful ecological management, research, education, and outreach. Apart from rare, threatened and endangered species protection, appropriate disease, pest and fire prevention programs are in place.

In safeguarding the environment, GRL is implementing an Environmental Management Plan in all plantations in order to monitor changes in the vegetation, meteorology, diseases, soil quality, water quality, biodiversity and socio-economic aspects with the purpose of mitigating any negative impacts that may arise.

The natural vegetation found in the different habitats in all forest areas are being left intact to offer refuge to wildlife, improve biodiversity, safeguard some of the native grasses and trees that may contain endemic and rare, threatened and endangered species (RTEs) and protect the areas from erosion as well as protecting water resources. There are currently no High Value Conservation Forests (HVCFs) on GRL plantations, but Sites of Special Interest (SSIs), valleys and swamps are also protected. Protection of available wildlife and monitoring of their population dynamics to ensure their existence

and conservation is being implemented with the assistance of acknowledged experts. The plantations, together with the surrounding communities, are implementing the proposed Biodiversity Conservation Strategy by preventing any activities like fire, grazing, planting trees, and crop cultivation in all areas where by RTEs has been identified. Regular inventories are carried out to ascertain the continued viability of RTEs population.

### **7.0 Education and Extension Programs**

Education and extension programs e.g. on fire management training and tree planting are implemented in the communities around the plantation and for plantation workers. Social relations are reinforced through meetings, gatherings and discussions with village leaders and local communities with the aim of finding amicable solutions to perceived problems, enhancing fire protection programmes and improved workforce availability for achieving the set targets. GRL implement health and safety programs for all workers in compliance with labour Act and appropriate ILO conventions through provision of safety equipment and training on safety issues, medication and prevention of Sexual Transmission Diseases including HIV/AIDS.

### **8.0 Research and Survey Programs**

Research and Survey programs are carried out by staff in order to broaden the scope of knowledge within the company. Other research institutions such as Sokoine University (SUA), Tanzania Forest Research Institute TAFORI, and Tanzania Tree Seed Agency (TTSA) may also conduct research in the project areas for back services required for achieving the management objectives.

Other documents which provide supplementary information on the management plan such as maps, accounting system, action plan, annual operation plan, guidelines and procedures, EIA reports, Ecological reports, monitoring conservation and management of indigenous vegetation have been prepared as separate documents.

## **9.0 Monitoring and Evaluation**

For the purpose of monitoring and evaluation progress in the implementation of the Forest Management Plan FMP, a monitoring and evaluation mechanism will be adopted by GRL during the planning period to evaluate progress made and to make corrective measures where appropriate in case of deviations from the set targets. Monitoring performance will be done on a weekly and monthly basis to ensure that the annual budgets are being followed while evaluation of performance will be undertaken to be able to compare the actual and planned performance and make necessary corrections. The performance will be measured by use of already set standards, reports, work-studies, time studies, physical measurements, accounting data etc. The Plantation manager will also ensure that Compartment and Plantation registers are filled and updated.

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