



# GRL Tanzania Ltd

Progress Report  
Prepared for  
Tanzania Investment Centre

February 2022

## 1. Project Details & Background

Green Resources is East Africa's largest forest development and wood processing company. The company manages approximately 38,000 ha of plantation forest in Mozambique, Tanzania and Uganda.

Green Resources is a growing business with many of its forest resources still in a development phase. Green Resources aims to follow the highest operational and environmental standards by conserving natural forest and other valuable habitats. The company has a large number of its planted forests certified according to the Forest Stewardship Council (FSC) standard, the world's leading standard for responsible forest management. A core value of Green Resources' development strategy is the improvement of environmental, social and economic conditions for the surrounding communities.

Green Resources operates industrial facilities including two sawmills, three pole treatment plants, a briquetting plant and a veneer mill. Green Resources was established in 1995 and is a private Norwegian company with both private as well as institutional investors. GRL Tanzania was established in 1996.

## 2. Overview of Operations

Green Resources' plantation subsidiary in Tanzania, GRL Tanzania Ltd (GRL), manages three plantation blocks (Uchindele, Idete & Mapanda), with approximately 14,700 ha of plantation forest.

GRL' objectives:

- *Maximize returns through the sale of wood products* - GRL is planting eucalyptus and pine species to supply raw materials for the production of poles, logs and biomass. These products will, primarily, be sold to domestic markets.
- *Be a leading supplier of carbon offsets* - through its afforestation programme, the company aims at mitigating climate change by reducing greenhouse gases through carbon sequestration. GRL will mainly operate on the voluntary carbon market under the VCS standard. Ten percent of carbon revenues will be reinvested in the communities surrounding the project.
- *Maintain a strong focus on the environment conservation and social development* - GRL will only plant on land that has been adequately approved for planting, including land that has been abandoned or degraded.

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## 2.1 Overview of Land Holding

Area Name	Area ha	Plantation ha	Description
Idete (Farm 900)	11,663	3,927	Titled - Ministry of Land
Uchindile I (Farm 308)	6,647	3,345	Titled - Ministry of Land
Chogo (Farm 854)	1,605	898	Titled - Ministry of Land
Mapanda (Farm 837)	4,653	1,905	Titled - Ministry of Land
Makungu (Plot 4,5&6)	14	-	In Process - TIC
Uchindele (Farm 1185)	174	-	In Process - TIC
Uchindele (Farm 1184)	85	29	In Process - TIC
Kitete (Farm No 1173)	10,505	1,858	In Process - TIC
Uchindele II (Farm No 1172)	10,879	1,362	In Process - TIC
Chogo (Farm No 1014)	822	440	In Process - TIC
Chogo (Farm No 1015)	314	48	In Process - TIC
Incomet (Farm No 1022)	1,920	900	Titled - TIC
	<b>49,282</b>	<b>14,712</b>	

Figure 1. Land title status. Titles derived from MoL pre 2010 and TIC post 2010.

- 2013
  - Farm 1014, 1015 – Cadastral survey and land use plan
- 2014
  - Farm 1184 – Compensated
- 2018
  - Makungu Plots (4,5 & 6), Farm 1173 & Farm 1172 – Title application submission
  - Farm 1022 – Title acquired

## 3. Progress against planned activities

As per GRL business plan the following are the activities completed for the period 2012 to 201

- Establishment of Industrial plantations
- Conservation of Biodiversity
- Contribute to climate change mitigation
- Contribute to social and economic development of rural areas
- Further expansion and investment in planting programmes
- Management of Industrial operations

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### 3.1 Establishment of Industrial Plantations

Since inception in 1996, the company has established 14,700 ha of pine and eucalyptus plantations in the Southern Highlands and although there is potential for expansion this will be at a smaller scale and for the immediate future the focus of the company is on improving the quality of the existing plantations.

Genus	Ha
Euc	4,963
Other	36
Pine	9,402
<b>Total</b>	<b>14,402</b>

Figure 2. Planted area by genus as of 30.06.2021

GRL is planting several different species of Pine and Euc species and practice “site species matching” where, through research, the optimal species for each area is determined to ensure optimal growth, quality and resistance to pest and disease.

Currently GRL is planting 3 pine species and 2 Eucalyptus species commercially that has proved to have optimal performance in the different areas. This has been narrowed down from 28 species that was initially planted in the process of establish the better performing species for each site.

### 3.2 Conservation of Biodiversity

GRL plantations has been established and are being managed in such a way that areas with natural vegetation are set aside and protected.

All riverine areas are mapped and protected, and all clusters of natural forests are conserved. Consequently, the company has just under 70% of its total land holding under conservation management.

Land Use Cover	Distribution
Plantation	32.6%
Natural Forest	7.6%
Riparian Vegetation	49.9%
Grassland	5.0%
Wooded Grassland	2.4%
Shrubland	1.7%
Wetlands	0.2%

Figure 3. GRL Land Use Cover as of 30.06.2021

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The company promotes and supports establishment of woodlots by farmers in order to create an alternative source of wood products away from the natural forests resulting in conservation of biodiversity.

The company is estimated to have directly contributed to the establishment of nearly 2,000 ha of woodlots of various species since project start with a 1,000ha being from 2014 to 2021.

<b>Year</b>	<b>Pine</b>	<b>Euc</b>
2014	1,922	78,068
2015	102,064	4,699
2016	4,858	294
2017	328,438	77,750
2018	268,246	37,280
2019	23,128	23,226
2020	52,136	8,330
2021	47,530	28,864
	<b>828,322</b>	<b>258,511</b>

Figure 4. GRL seedling donations since 2014

GRL is also an established supplier of quality seedlings to 3<sup>rd</sup> parties for various afforestation projects.

### 2.3 Contribute to Climate Change Mitigation

A total of 6,570 ha of plantations in GRL has, since 2010, been managed as Voluntary Carbon Projects.

Trees planted by the company sequester carbon dioxide which is one of the Green House Gasses responsible for global warming.

GRL plantations currently hold 754,000 tons of verified carbon units and the amount is expected to increase with another 30,000 tCO<sub>2</sub>e when the project will reach its long time average.

In 2010, the company successfully sold the first forest plantation-based carbon offsets and continues to be a leading supplier on the carbon offsets market

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### 3.3 Contribute to Social & Economic Development of Rural Areas

GRL operates in remote areas in the Southern Highlands of Tanzania. These areas have limited infrastructure in terms of roads whilst access to health and education facilities are limited.

The company works closely with local communities and the Government in improving roads, health and educational facilities in the areas adjoining the forest plantations.

By creating formal employment in areas where alternative sources of jobs are limited, household incomes will increase and money will be available to improve housing, buy food and pay for medical and health services.

Since inception the company has spent over TZS 1.2 Billion building community development projects (CDP) such as classrooms, teacher’s houses, medical facilities, community halls, water wells, infrastructure and sanitation facilities.

<p><b>2011</b></p> <ul style="list-style-type: none"> <li>3 Village office</li> <li>2 Community hall</li> <li>5 Classrooms</li> <li>1 Nurse house</li> </ul> <p><b>2012</b></p> <ul style="list-style-type: none"> <li>1 Bridge</li> <li>2 Classroom (rehabilitation)</li> <li>3 Classroom</li> <li>Funds for land use plan (2 Village)</li> <li>1 Dispensary</li> <li>1 Doctors House</li> </ul> <p><b>2014</b></p> <ul style="list-style-type: none"> <li>2 Classroom</li> <li>1 school (rehabilitation)</li> <li>12 pit latrines</li> </ul> <p><b>2015</b></p> <ul style="list-style-type: none"> <li>105 school desks</li> <li>2 Village office</li> <li>2 Community hall</li> <li>1 Girls school dormitory</li> <li>8 pit latrines</li> </ul>	<p><b>2016</b></p> <ul style="list-style-type: none"> <li>4 Classroom</li> <li>1 Dispensary</li> </ul> <p><b>2017</b></p> <ul style="list-style-type: none"> <li>3 Classroom</li> <li>1 Maternity ward</li> <li>10 Pit latrine</li> </ul> <p><b>2018</b></p> <ul style="list-style-type: none"> <li>1 Maternity ward</li> <li>3 Duplex teacher's house</li> </ul> <p><b>2019</b></p> <ul style="list-style-type: none"> <li>2 Classroom</li> <li>1 Teachers House</li> <li>1 Village Office</li> <li>1 Community Hall</li> <li>1 Solar energy project</li> </ul> <p><b>2020</b></p> <ul style="list-style-type: none"> <li>4 Classroom</li> <li>2 Teachers house</li> <li>1 Water project</li> </ul> <p><b>2021</b></p> <ul style="list-style-type: none"> <li>2 Classroom</li> </ul>
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Figure 5. GRL implemented CDP as per village agreements

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10% of the revenue from Carbon Sales is disbursed to a Carbon Community Social Development fund with TZS 509 million disbursed to date. The funds are mainly focused on; education, health, infrastructure and sanitation and there is a clear framework and controls in place ensuring correct use of the funds.

Year	Disbursed (TZS)
2021	280,021,603
2020	9,018,371
2019	4,011,203
2018	5,982,891
2017	9,077,806
2016	2,446,572
2015	43,325,080
2013	31,233,799
2010	124,263,106
<b>SUM</b>	<b>509,380,431</b>

Figure 6. GRL carbon fund disbursement

In 2020 GRL introduced Social Development Fund (SDF) in order to continue to support communities where the community projects specified in the village contracts are fully implemented. The management of the funds follows the same framework as the Carbon Funds.

Year	Disbursed (TZS)
2021	24,951,015
2020	24,951,015
<b>SUM</b>	<b>49,902,029</b>

Figure 7. GRL SDF disbursement

### 3.4 Expansion and Investment in Planting Programmes

For the past 24 years GRL Tanzania Ltd has invested Tshs 70 billion towards the establishment of about 14,700 ha of pine and eucalyptus plantations.

A substantial proportion of this amount has been used in developing infrastructure such as roads, bridges, offices, staff housing and worker's accommodation.

With no immediate expansion of plantation area planned the focus has been on harvesting and increasing the replanting program which has seen a significant increase over the last 5 years.

Year	Euc	Pine	Sum
2017	1		1
2018	18		18
2019	60		60
2020	106	311	418
2021	96	351	447
<b>Total</b>	<b>282</b>	<b>662</b>	<b>944</b>

Figure 8. GRL replanting program

### 3.5 Industrial Operations

Green Resources AS, through GRL's sister company, Sao Hill Industries, operates the largest sawmill in East Africa.

Construction of a new small log sawmill (Hew Saw) with a capacity to produce 80,000 m3 of sawn timber annually was done and represent the biggest investment in the forest industry sector in East Africa the last two decades. This sawmill which comes with new timber drying kilns produces high quality timber for the domestic and export market.

- 2011
  - ISO 14001 & OSHAS 18001 certified
  - Kiln dryers commissioned with annual capacity of 30,000m3 of sawn timber
- 2012
  - Joinery and pallet production line commissioned
  - Hew Saw in full production; 80,000m3 annual capacity at double shift.
- 2014
  - Purchase of Semi-Mechanized harvesting equipment
- 2015
  - Briquetting line commissioned
- 2021
  - First pole kiln in Tanzania commissioned the with an annual capacity 48,000 poles.

The sawmill provides a market and value for logs produced in GRL's forests and ensures a sustainable forest existence. Provision of high-quality products to the market helps to lessen pressure on harvesting natural forest.

## 4. Project Financial Expenditure at end of June 2021

Below is a summary of Summary for Project Financial Expenditure at end of June 2021

Property & Equipment	Costs value	Financing		
		Foreign	Local	Total
Land & Buildings	1,935,000,000	1,935,000,000	-	1,935,000,000
Motor Vehicles	791,000,000	791,000,000	-	791,000,000
Equipment, Furniture & Fixtures	4,251,000,000	4,251,000,000	-	4,251,000,000
<b>Grand Total</b>	<b>6,977,000,000</b>	<b>6,977,000,000</b>	<b>-</b>	<b>6,977,000,000</b>

At present the financing is done fully through a combination of equity and shareholder loans. At the inception of the project there was a component of lending from 3<sup>rd</sup> party funders (IFC and Norfund) however these loans were paid or converted into equity.

## 5. Challenges and Solutions

At present the company faces a number of challenges most specifically:

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- Fires – the company is concerned about the level of fires that threaten forestry in the Southern Highlands each year. Enforcement of Village By-Laws will be crucial to avoid fires to damage the plantation forest industry
- Taxes & Taxation – like many businesses in Tanzania the forestry sector is faced with a multitude of taxes both on local and national level. Implementation of the Blueprint for Business Reform is paramount to the success of the industry.
- Resin Tapping – recently the government of Tanzania banned the tapping of pine resin; this has removed a key (interim) revenue earner for the company negatively impacting the business performance. The company is actively engaging with the Minister of Natural Resources and Tourism to see this ban overturned.
- Export of Veneer – recently the government of Tanzania banned the export of veneer; this has resulted in closure or production stoppages at a number of key customer locations and consequently resulted in significant loss of revenue for the company (up to 75% of production capacity of veneer logs was discontinued). The company is actively engaging with the Minister of Natural Resources and Tourism to see this ban overturned.

## 6. Outlook and Future Operational Plans

With no immediate plans for expansion and the plantations areas reaching maturity, the focus is shifting towards improved practiced in terms of silviculture, genetic material, infrastructure and harvesting.

The split between pine and eucalyptus is expected to be maintained as 70% pine and 30% eucalyptus.

### 6.1 Nursery Activities

GRL’s nursery has a capacity to produce 6 million seedlings. Nursery operations will continue to service the company’s existing plantations which will require approximately 1.5 million seedlings per annum.

Sales to 3<sup>rd</sup> party tree planters are expected to be a core revenue source for the company going forward.

### 6.2 Harvesting

GRL Harvesting Schedule (m3)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Pine (m3)	83,917	84,659	99,466	118,020	151,687	123,764	156,993	155,449	186,958	179,701
Euc. (m3)	60,652	57,447	66,909	64,876	95,991	96,898	86,445	94,467	89,809	79,359
<b>Total (m3)</b>	<b>144,568</b>	<b>142,105</b>	<b>166,375</b>	<b>182,896</b>	<b>247,678</b>	<b>220,662</b>	<b>243,439</b>	<b>249,916</b>	<b>276,767</b>	<b>259,060</b>

Figure 9. GRL harvesting volumes by genus

Harvesting is steadily increasing during the coming years as the plantations are maturing and is being done semi-mechanized with the bulk of products being supplied to the local industry in Mafinga district. Main products categories are; Poles, Peeler Logs & Saw logs.

### 6.3 Planting

GRL adheres to the best practice in its planting operations where each high quality seedling is planted in an environment free from competition, an effective rooting depth of more than 60cm and with correct use of chemicals and fertilizer ensures optimal growth and survival

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The replanting program is being significantly ramped up over the coming 5 years bringing the plantation in rotation with an annual clear-fell and planting area of approximately 1,200ha

GRL Harvesting & Planting Schedule (ha)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Fell Area	801	773	835	838	1,303	1,141	1,127	1,168	1,194	1,146
Plant Area	775	823	848	911	1,165	1,284	1,192	1,294	1,340	1,395

Figure 10. GRL Planting program

### 6.4 Silviculture Operations

Tending operations are important for the survival and growth of seedlings. Regular weeding creates a weed free environment and this minimizes competition for nutrients and water. Thinning and pruning schedules are adhered to with the aim of improving growth and quality of logs and poles

	UoM	2022	2023	2024	2025	2026
<u>Pruning</u>	UoM	-	-	-	-	-
1st pruning	ha	495	380	330	300	338
2nd pruning	ha	-	-	-	-	-
3rd Pruning	ha	-	-	-	-	-
4th pruning	ha	-	-	-	-	-
Corrective pruning	ha	-	-	-	-	-
Brashing	ha	101	207	212	286	305
<b>Total Pruning</b>	ha	<b>596</b>	<b>587</b>	<b>542</b>	<b>586</b>	<b>643</b>
		-	-	-	-	-
<u>Tending / Weeding</u>	UoM	-	-	-	-	-
Ring cleaning	ha	1,062	1,550	1,647	1,695	1,822
Manual slashing	ha	2,124	3,126	3,609	3,905	4,054
<b>Total Weeding</b>	ha	<b>3,186</b>	<b>4,677</b>	<b>5,256</b>	<b>5,600</b>	<b>5,876</b>

Figure 11GRL 5 year silviculture plan

### 6.5 Fire Protection

Fire poses the biggest threat to the forest investment. In order to secure the investment from forest fires, the existing infrastructure consisting of roads, fire lines and fire breaks are being upgraded and properly maintained.

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<u>Fire Protection</u>	UoM	Sum
Slashing of external Firebr	km	200
Burning of external Firebr	km	300
Fire stand by	md	13,088
Slashing of internal Firebr	km	57
Preparation of external Tra	km	300
Preparation of internal Tra	km	57
Spraying of external Fireb	km	101
Prescribed Burn	ha	500
Burning of Internal Firebre	Km	57

Figure 12. GRL annual km of fire-breaks and man-days of fire-crew maintained.

Specialized standby-crews and maintained during the fire-season and scheduled as per fire-danger index.

There are ongoing initiatives to improve coordinated fire-fighting between the different industry stakeholder.

### 6.6 Infrastructure Development (Buildings)

Currently all plantation staff is accommodated in houses and barracks constructed in the plantation. GRL HQ is located at SHI industrial area

### 6.7 Plant & Machinery

The company is undergoing a process of where most activities are outsourced hence also the equipment. Currently most of the functions and equipment within; Harvesting, Silviculture & transport is outsourced to 9 different service providers based in Mafinga employing more than 300 people.

In 2021 a capex investment in specialized semi-mechanized harvesting equipment was made as capacity is not yeat available locally in Tanzania.

### 6.8 Research & Development

Research and Development program is strengthened with major focus on tree breeding activities and commercial deployment of varieties with good trial performance.

All Eucalyptus planted in GRL is currently hybrid clones with superior performance identified in the trials. The growth is approximately 30% better compared the best pure species seeds sources available.

Own pine hybrids are also in the process of being developed and is expected to have similar gains in terms of yields as the Eucalyptus clones

### 6.9 Forest Inventory & Yield Assessment

Information about the different timber stands, their quality, sizes, stocking and other existing forest information access, is vital for the long-term planning of the development of GRL forests.

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GRL has its own specialized planning department using the latest technology such as; drones, GPS and AI-remote sensing to monitor the forest status, future yields as well as harvested volumes and assortments

#### 6.10 Community Projects

GRL will continue to implement community projects as agreed between the company and the villages.

With community projects being completed as per the agreements Social Development Fund has been created to provide annual funds for community development through the entire project time.

A total of TZS 49 million has been disbursed to Social Development Fund community accounts to date since 2020 and the fund will increase to an annual disbursement of approximately TZS 100 million over a period of 5 years.

### 7. Concluding Remarks

GRL is about to enter a phase of its business where it will be able to operate independently from shareholder support and will become a commercial business.

GRL is committed and will continue to follow the highest operational and environmental standards by conserving natural forest and other valuable habitats.