

RL SUKHRAM & SONS

SFEP 2/2017

PROJECT SUMMARY

RE APPLICATION FOR AN ENVIRONMENTAL AUTHORIZATION



March 29, 2018

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FOREWORD

RLSS has some US\$25 million in sawmilling and logging assets and will grasp the opportunity provided by more than 432,000ha of intact forests to create a major positive impact on the forestry sector.

RLSS is currently engaged with local and foreign expertise and businesses to introduce state of the art technology in timber harvesting and wood processing respectively.

This investment is testimony to RLSS' conviction that the forest industry will (re) emerge as a major economic sector within a few years to the extent that RLSS predicts a 40% increase in national timber exports by December 2020.

ACRONYMS

AAA	Annual Allowable Area
AAC	Annual Allowable Cut
Dbh	Diameter at breast height
FTCI	Forestry Training Centre Inc.
GFC	Guyana Forestry Commission
GGMC	Guyana Geology & Mines Commission
NDC	Neighbourhood Democratic Council
RDC	Regional Democratic Council
RLSS	RL Sukhram & Sons
SFEP	State Forest Exploratory Permit
TPTTI	Toolsie Persaud Timber Traders Inc.
TSA	Timber Sales Agreement
WTTCL	Willems Timber & Trader Company Limited

1.0 INTRODUCTION

1.1 Corporate profile

1.1.1 Business location and contact details

RLSS was formally incorporated as a *Sole Trader* on April 9, 2015 (see Annexes I, II) (although in fact, Mr. Ragunauth Sukhram has been involved directly in logging and sawmilling since 2000.

The registered address and other contact details for the enterprise are as follows:

- a) Registered Office, HQ: Lots 6 & 7, St. Lawrence, East Bank Essequibo, Region #3.
- b) Telephones: Office- 592-262-0330; Cell 592-698-5265
- c) Fax: 592-262-0299
- d) Email: r.l.sukhram@yahoo.com
- e) Mailing address: Lots 6 & 7, St. Lawrence, East Bank Essequibo, Region 3

1.1.2 Staffing

The current members of RLSS' management team are listed in Table 1. RLSS maintains the highest ethical standards in its business operations, making sure it complies with all applicable policies, laws and standards for the timber industry as well as wider statutory obligations.

Table 1: Management team: RL Sukhram & Sons

#	Name	Designation	Remarks
1	Ragunauth L. Sukhram	Manager	30 years' experience in logging & sawmilling
2	Desmond SUDHOO	Forest Manager	15 years' experience in logging
3	Ryan CHUNG	Asst. Forest Manager	6 years' experience logging with Jeptoo's Sawmill
4	Rajesh WILLIE	Accountant	10 years accounting experience
5	Farley CLARENTE	Mechanic	17 years' experience as a heavy-duty mechanic

RLSS currently employs 30 persons in its logging operations. The recruitment of an additional 200 persons is contemplated over the next two years.

RLSS routinely engages other loggers and sawmillers to share ideas about timber harvesting, wood processing and timber marketing, locally and overseas. No contractors are currently hired by RLSS but this will change in 2018 (please see section 2.5.2).

1.1.3 Business objectives

The business objectives of the enterprise include:

- a) To generate sufficient volume of high grade timber to conserve its top quintile market share in Region 3; specifically, RLSS is aiming at annual revenue of US\$7 million by 2022;
- b) To promote the development of value added certified lumber for export, targeting markets in the Caribbean, USA and Europe;
- c) To develop the capability for efficient timber harvesting systems and practices; and
- d) To develop innovative wood processing techniques that tap the properties of at least 40 local species.

1.1.4 Logging and sawmilling experience

R. L. Sukhram & Sons (RLSS) has been in the logging and sawmilling business for the past seventeen (17) years. RLSS *currently* manages a total of 12,464 ha of logged over forests under four logged over *State Forest Authorizations*¹ in the Kartabo Triangle and harvests about 2,872 m³ of timber per annum (see illustration of operations in Figure 1). All logs are processed at RLSS' sawmill at St. Lawrence, East bank Essequibo River.



Figure 1: Illustration of RLSS log market operations-Kartabo triangle

The current authorizations provide useful opportunities for the training of field operatives prior to interventions in SFEP 2/2017.

¹ RLSS will cede these in 2018 and focus entirely on operations within the area covered by SFEP 2/2017

1.1.5 Assets

RLSS currently owns more than US\$25million in logging, sawmilling and marine assets (see Figures 2, 3).



Figure 2: Left-Logging assets; Right-Marine assets



Figure 3: Left Sawmilling assets, St. Lawrence; Right –Lumber depot, Versailles

1.1.6 Corporate social responsibility

RLSS is a community oriented business. Over the past few years RLSS has provided material support (via donations of lumber and cash) to several entities, including:

- a. **Religious bodies:** Leguan Mandir; Hydronie Mandir; Shari Surya Narayan Mandir; Guyana Hindi Dharmic Sabha; Chris Community Church
- b. **Schools:** Blake Primary School; St. Lawrence Primary School;
- c. **Local authorities:** Parika-Mora NDC, Batavia Village
- d. **Public agencies:** Leonora Fire service

1.2 The SFEP

1.2.1. Geographic area and access

The concession area, comprising some 432,262.59ha is situate between right bank Cuyuni River and left bank Puruni River (see Map 1). The northern part of the area may be accessed via the Cuyuni River but the river can neither be used to ferry heavy equipment to the concession area nor to extract logs due to the presence of extensive rock outcrops.

The *current* option for accessing (the southern part of) the concession area is via the Iteballi-Puruni Road to Tiger Creek Junction (see Map 2), thence northerly via an access road (timber path via TSA 1/91) from the Tiger Creek Junction to Mara Mara River, thence via a timber path within SFEP 2/13 held by TPTTI to Ekabago River- the eastern boundary of the concession area (see Map 1); thence across the Ekabago River.

1.2.2 Site features and land use

The terrain is generally hilly, and there is a high drainage density. The vegetation is 97% intact although there are small gaps generated by (new and old) gold mining activity. The northern part of the concession area is drained by right bank tributaries of the Cuyuni River, while the southern part of the concession is drained by left bank tributaries of the Puruni River, left bank Mazaruni River.

There are currently no roads within the concession area but, the south eastern end of the forest concession has numerous trails (see Figure 2) used by itinerant miners on ATVs.

Mining concessions-including Guyana Goldfields, situate on the northern edge of the SFEP along right bank Cuyuni River- occupy some 389,193.93 ha (90%) of the concession area; however *active mining* occurs on just 970.38ha (0.2%) of the concession area². RLSS estimates that, save and except Guyana Gold Fields, there are about 30 itinerant mining teams active within the concession area-these seems to be supported by businessmen engaged in the commercial transport of goods, fuel and people.

No communities have been observed in the concession area. However, the SFEP has a shared boundary with Kurutuku Amerindian Village, which occupies both banks of the upper Cuyuni River (see Map 1).

² Source: GFC, January 2018.

1.2.3 Vegetation and merchantable species

The vegetation is mostly (>97%) intact. Vegetation types are typical for that region and contain a wide variety of merchantable species such as Greenheart, Purpleheart, Locust, Kabukalli, Shibadan, Wallaba, Aromata, Hububalli, Bulletwood, Wamara, and Mora. There are also abundant peeler species such as Baromalli, Haiariballi, Suya and Ulu. RLSS estimates that it can easily sources 25m³ of mixed species merchantable timber per hectare from the area.

According to ter Steege (2000), the vegetation type prevailing in the area may also be described as *Central Wet Forests*. The most abundant species in this type are set out in table 2.

Table 2: List of six most abundant merchantable (dbh≥33cm) species Central Wet Forests

#	Species	Trees/100 ha	Remarks
1	Black Kakaralli (<i>Lecythis spp.</i>)	440	Normally used as piles, an underutilized species
2	Mora (<i>Mora excelsa</i>)	392	An under-utilized species
3	Wamara (<i>Swartzia spp</i>)	337	Popular premium species
4	Greenheart (<i>Chlorocardium rodiei</i>)	256	Popular premium species
5	Morabukea (<i>Mora sp.</i>)	250	An under-utilized species
6	Baromalli (<i>Catostemma spp.</i>)	180	Used in the plyboard sector

RLSS will be undertaking management level inventories to validate this data.

2.0 THE PROJECT

2.1 Overview

RLSS intends to harvest, process and market the full allowable cut of 83,360m³ allowed. This implies that RLSS will harvest a mean daily volume of 277m³ and transport this volume to Pine Tree Landing where RLSS is currently setting up a log depot and pier to transship logs by tug & barge from Pine Tree Landing to St. Lawrence, Georgetown and other points of sale.

The first stage will be done by road from the concession area via two timber paths via SFEP 2/2013 and TSA 1/91 thence along the Kartabu-Puruni Road to a GPF-GGMC check point about 5km from Iteballi, thence to Pine Tree Landing.

2.2 Preparatory work

RLSS has already carried out the following preparatory tasks:

- a) Initiated discussions with FTCl for technical support, particularly in relation to an ESIA study of the area;
- b) Identified the biodiversity reserve (see map 1) based on forest types and topography: the reserve captures all the forest types and also a bit of very hilly terrain to capture biodiversity related to altitude;
- c) Divided the concession area, less the area of biodiversity reserve into compartments as set out in Table 3;

Table 3: List of Compartments-SFEP 2/2017

#	Division	Area (ha)
Compartments		
1	Compartment 1	50,238.76
2	Compartment 2	32,964.48
3	Compartment 3	83,272.26
4	Compartment 4	45,827.11
5	Compartment 5	44,507.24
6	Compartment 6	45,280.16
7	Compartment 7	45,867.64
8	Compartment 8	40,947.61
9	Compartment 9	23,577.86
	Sub-Total	412,483.12
10	Biodiversity reserve	19,779.48
	Total	432,262.60

- d) Divided the concession area less the area of the biodiversity into 1000m x 1000m blocks and designated each block with a unique alpha-numerical code.
- e) Explored several options for accessing the concession area, particularly the status of 'mining roads' within or near to the concession area.

2.3 Proposed felling cycle and yield

RLSS wishes to use a 40 year felling cycle in the management of the concession area which would allow the enterprise to harvest 13.33m³/hectare.

RLSS's preliminary projections for the forest concession area as follows:

I.	Concession size (ha):	432,262.59	(i)
II.	Felling Cycle (yrs)	40yrs	(ii)
III.	Sustained yield (m ³ /hectare)	13.33	(iii)
IV.	Non-Productive forests (ha)	104,850.88	(iv)
V.	Productive forests (ha) (i)-(iv)	327,411.72	(v)
VI.	Biodiversity reserves (ha) (v)*0.045	14, 733.53	(vi)
VII.	Net Productive area (ha) (v)-(vi)	312,678.19	(vii)
VIII.	Available productive area (ha) (vii)*0.8	250,142.55	(viii)
IX.	Total sustainable yield (SFEP 2/17) ha: (viii)*(iii) m ³ :	3,334,400.19	(ix)
X.	Annual allowable area (ha): (viii)/40	6253.56~63 blocks	(x)
XI.	Annual allowable cut (m ³): (ix)/40	83,360	

On the basis of its assets, RLSS believes it is up to the task of harvesting **83,360 m³** per annum or about 277m³/day.

2.4 Timber harvesting

Timber harvesting activity will be based on reduced impact logging principles and practices (see Figure 4). A major feature of RIL is the need to plan every intervention in the forest resources with a view to minimizing impacts on the functional aspects of the forest resources and also to minimize deforestation (gap formation) and forest degradation. RLSS is also thinking about a concession based portable sawmill: more details on this would be provided at subsequent date.

2.5 Heavy-duty vehicular & felling assets

RLSS has some US\$ 25 million worth of logging, road construction and marine assets (see Annex V) buoyed in part from equipment purchased from BCL when it closed timber harvesting operations in 2016. All assets are fully functional.

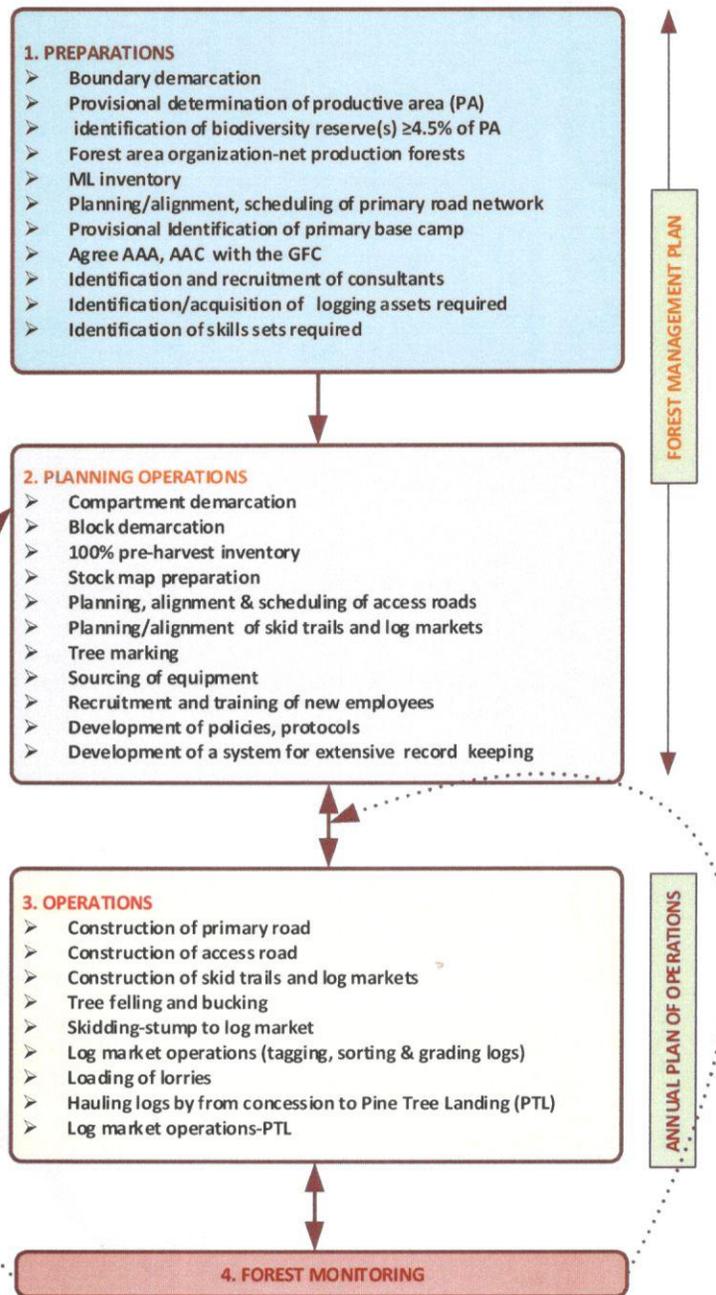


Figure 4: Activities constituting RLSS' operations

2.6 Employees, Contractors and Consultants

2.6.1 Employees

RLSS will develop a 300% increase in staff by the end of 2018 to manage the various forest operations tasks envisaged (see Figure 4, Annex III). Allied to the recruitment and training of an expanded workforce, RLSS will develop human resources policies, SOPs for field work and OSH practices.

2.6.2 Contractors

RLSS will hire contractors specifically for pre-harvest inventory tasks. RLSS is committed to doing about 70 blocks per year and a total of about 60 persons are expected to be recruited and engaged **full time** in block demarcation and pre-harvest inventory. RLSS plans to have pre-harvest inventory data at least one year before logging operations.

2.6.3 Consultants

RLSS is in negotiations with FTCl to take forward an ESIA study, anticipated given the size of the concession area.

FTCl in turn has identified the following persons it will recruit to take forward the ESIA:

- a) Environmental Engineering Solutions (Environmental Management) (2 experts)
- b) Eustace Alexander (Social Issues)
- c) Leon Moore (Wildlife biologist)
- d) Philip Odwin (Wildlife technician)
- e) FTCl: Foresters & Forest Technicians. (Robert Skeete-Forester/ Delyon Roberts-Forest Technician & Bevin Dundas-Botanist, tree spotter)

Godfrey Marshall (Forester) will coordinate the work of the consultants.

2.7 Research

RLSS commits to work with local and overseas agencies in the area of biodiversity management and wood processing. RLSS has a specific interest in developing technologies for the utilization of 'lesser used species'. RLSS is also interested in research on the regional market for local hardwood timbers.

2.8 Partnerships

RLSS is committed to the development of partnerships that would specifically achieve the following:

- a) Develop the standard and safe use of the Kartabo-Puruni Road
- b) Contribute to a constructive, business oriented and multiple-use approach to land use;
- c) Promote the orderly development of the Kartabo-Triangle
- d) Conserve the environment, including the total faunal patrimony

2.9 Corporate social responsibility

RLSS is committed to improving the welfare of stakeholders and will continue to target religious and youth development programmes wherever feasible. For the Kartabo Triangle, RLSS will align itself with regional projects in progress.

3.0 ENVIRONMENTAL MANAGEMENT

3.1 Overview

RLSS is committed to the sustainable use of forest resources, to the well-being of rural, forest based citizenry, and to enhanced forest management practices. RLSS is aware that its operations will contribute directly to the economic development of Region 7 (especially the Kartabo Triangle). RLSS is also aware that its activities will modify the forest environment in a negative manner (see Figure 5) and the enterprise is keen to generate the minimal modifications possible.

3.2 Projected negative environmental and social impacts

For a full understanding of all the issues, RLSS's consultants (see Section 2.6.3), subject to inputs from the EPA will be involved in the collection and analysis of baseline data on the physical, biological and the socio-economic environment.

The consultants are expected to carry out a number of activities, including but not limited to the following:

- a) Review the local policy and legislative framework associated with logging activity
- b) Review strategic development plans for Region 7, including overarching matters linked to a green economy generally and opportunities for synergy between developers in the Kartabo Triangle;
- c) Collect baseline data on the physical, biological and socio-economic environments;
- d) Consult widely with stakeholders;
- e) Identify and describe all direct, indirect, cumulative, positive, negative, and other impacts of the proposed development and identify ways of mitigating negative impacts.
- f) Develop an environmental management plan for the project, including:
 - i. an emergency response plan;
 - ii. protocols for continual stakeholder engagements;
 - iii. the management of concession based road corridors;
 - iv. wildlife conservation measures;
 - v. the protection of (biodiversity) reserves; and
 - vi. the monitoring of critical environmental issues (for example water quality, air quality, forest degradation, etc.);
- g) A closure plan in the event of project termination

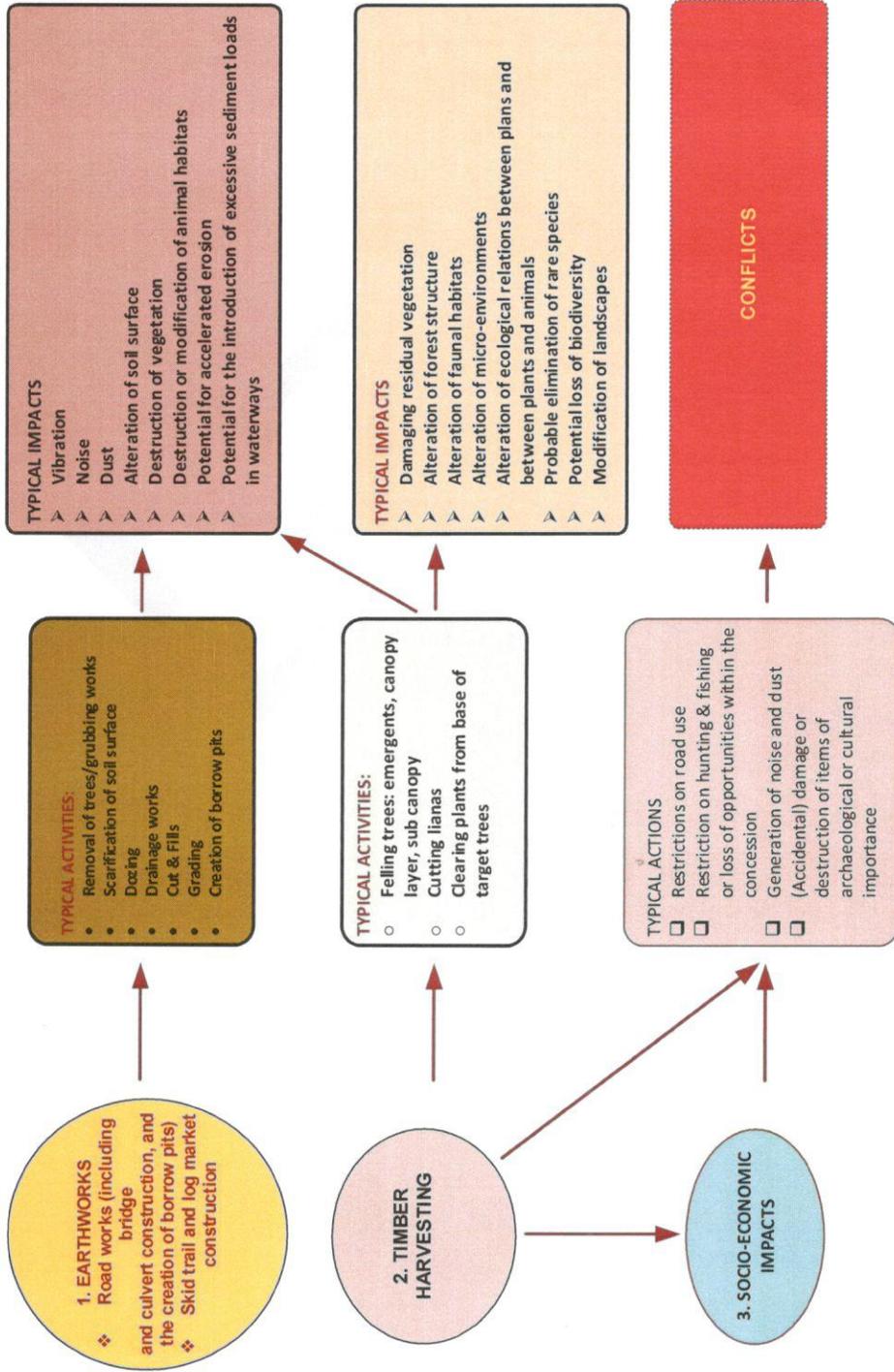


Figure 5: Summary of projected negative impacts

For an understanding of the socio-economic environment context for RLSS's project, its consultants will engage a number of public agencies and communities, including the following:

- a) RDC, Region 7 and the CDC, Iteballi
- b) GFC
- c) GGMC
- d) Batavia Amerindian Village
- e) Puruni Village
- f) Guyana Gold Mines
- g) Kurutuku Amerindian Village
- h) Ministry of Public Security
- i) Ministry of Public Infrastructure
- j) Ministry of Indigenous Peoples' Affairs
- k) Ministry of Natural Resources
- l) The logging community-Kartabo Triangle
- m) MARAD

Figure 6 shows the main communities to be impacted by RLSS' operations

3.3 Mitigation of negative (mitigable) impacts

In the absence of actual data on the nature and scope of environmental impacts generated by RLSS's project, RLSS wishes to state that the main thrust of its impact mitigation strategies, will be based on the following:

- a) Full compliance with the prevailing legal framework, including those governing wildlife, biodiversity conservation, and protected areas;
- b) Engagements with stakeholders: RLSS has already attempted a stakeholder analysis which identifies the following core stakeholders:
 - a. EPA (Environmental management)
 - b. GFC-Sustainable forest management
 - c. DOE/MOTP-Biodiversity, protected areas, climate change, wildlife
 - d. The mining community- Kartabo triangle
 - e. The logging community-Kartabo triangle
 - f. (Indigenous) communities at Batavia Amerindian Village & Kurutuku Amerindian Village
- c) Strict adherence to the practice of reduced impact logging
- d) Strict adherence to GFC's Code of Practice for Forest Operations 3rd Ed.
- e) Employee training in every operational phase
- f) The maintenance of all machines in a proper functional state

3.4 Partnerships

RLSS will build partnerships wherever appropriate to promote its business objectives, including its corporate social responsibility.

3.5 RLSS's policy framework.

RLSS's new policy framework for its human resources management, corporate social policies and environmental policies (including waste management) will be tailored to address issues emerging from consultations with stakeholders, including at scoping meetings.

4.0 CONCLUSION

RLSS looks forward to the challenge and the opportunity to make a tangible contribution to the development of the forestry sector. RLSS commits to implementing measures that ensure that forest resources conservation in all its forms will be given adequate attention.

Annex III: Organization Chart for a restructured RLSS

