DEPARTMENT OF FORESTRY
ANNUAL REPORT
2015

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MINISTRY OF FISHERIES AND FORESTS

DEPARTMENT OF FORESTRY

ANNUAL REPORT

For the Year ending on
31st December 2015

MINISTRY OF FORESTRY

HEADQUARTERS
Takayawa Building, Toorak Road, Suva
P. O. BOX 2218, Government Buildings
Suva, FIJI

Phone: (679) 3301611
Email: tfong@govnet.gov.fj

REFERRAL LETTER FROM PERMANENT SECRETARY

18 February 2020

Honourable Osea Naiqamu
Minister for Forestry
Takayawa Building, Toorak
Suva.

Dear Sir,

Re: Annual Report 2015

I have the pleasure of re-submitting the Annual Report for the then Department of Forestry for the year ending 31st December 2015. The Report was submitted earlier but was returned at the request of the Parliamentary Standing Committee on Natural Resources. I am pleased to advise that the Report now contains the information requested by the Committee.

This is now respectfully submitted for your information and subsequent tabling in Parliament in accordance with the Financial Management Act of 2004.

Yours Sincerely,

PERMANENT SECRETARY FOR FORESTRY – FIJI –

G.P.N. Baleinabuli
Permanent Secretary (since November 2018)

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FOREWORD

I am pleased to present the 2015 Annual Report for the then Forestry Department. This is the 77th edition of the forest sector's Annual Report. This report was put together under the guidance of the then Permanent Secretary, Mr Inoke Wainiqolo, and Conservator of Forests, Mr Samuela Lagataki, whose contribution I acknowledge with sincere appreciation.

The year 2015 considered a challenging yet successful one where a lot of innovative ideas and plans were realised to improve service delivery to the people and I must thank the staff for their dedication and hard work. In totality, the department was allocated $6.2 million for operational expenditure which was an increase of 12% compared to the 2014 amount of $5.5 million, in the implementations of its programs for 2015. The Department was also allocated $4.8 million in 2015 for forestry special expenditure and capital projects, an increase of 52% compared to the 2014 amount of $2.3 million.

The 2015 achievements build on from the work in 2014, however the specific highlight in 2015 for the department was the engagement in smart partnership for effective and efficient service delivery and central to this, was that in May 2015, Fiji signed a grant agreement with the World Bank valued at 3.8 million USD for Fiji's readiness process for REDD Plus. A team from the World Bank and its Forest Carbon Partnership Facility (FCPF) visited the country for their third mission to meet the readiness program staff and stakeholders so as to review Fiji's progress of program implementation and activities towards reducing emissions from deforestation and forest degradation, conservation, sustainable management of forests and enhancement of carbon stocks. The second objective of the mission was to support Fiji's preparation for planning and implementing the Emission Reductions Program (ERP), for which Fiji had been accepted into the Carbon Fund pipeline of the FCPF. This is part of Fiji's commitment to the United Nations Framework Convention on Climate Change (UNFCCC) initiative to reduce carbon emissions from the removal of forests through the Fiji National REDD Plus Program.

The Department in 2015 continued to challenge its employees to keep striving for excellence and to deliver within given resources and timelines. By doing so the forest communities also shared its purpose and benefits with others for ensuring an enhanced and prosperous forestry sector for the present and future generations.

I once again thank the staff for their commitment, hard work, perseverance and contribution to enhance the efficient and effective service delivery to the people of Fiji. I also wish to extend our appreciation to the development partners and Non-Governmental Organizations for their contribution and support throughout 2015.

G. P. N. Baleinabuli

The Permanent Secretary (since 15 November 2018)

CORPORATE PROFILE

VISION

- Our Future Generation will inherit a Prosperous and Enhanced Forestry Sectorhe Leader in forests sustainability and innovation for small island economies

MISSION

- Improving Livelihood through SMART Policies on Sustainable Management of Forestry Resources.

VALUES

- **Responsible** - We will discharge our duties with accountability
- **Resolute** - We will discharge our duties with determination and be firm and fair in our decisions
- **Respectful** - We will be sensitive to individual needs and the diversity of views
- **Resourceful** - We will be practical, creative, effective and efficient and maintain uncompromising integrity in our daily work
- **Reliable** - We will do and deliver what we have committed and promised to our customers

ROLES & RESPONSIBLITY

The Department is responsible for the:

- Implementation of the Fiji Forest Policy 2007;
- Administration and enforcement of Forest Legislation;
- Ensure conservation, sustainable utilization and management of forest resources;
- Approve and issue forest related licenses;
- Provide training, extension services and research;
- Coordination with key stakeholders including forest resource owners.

STRATEGIC PRIORITY AREAS

Priority Outcomes as in the RDSSED, Government's Manifesto and the 2013 Constitution:

No.	Description
1	The Accountability Framework – Productive and Transparent, democratic and accountable institution
2	Public Sector Reform – Improved Public Sector efficiency, effectiveness and service delivery
3	Leader – Effective, enlightened and accountable leadership
4	Employment & The Labor Market – Fullest and most productive utilization of human resources

The above key focus outcomes can be further translated into the table below:

In aligning the above to the Government's manifesto the following key areas apparently stood out:

1. Ensuring food security for the people of Fiji through various programs and activities that is implemented;
2. Greater collaboration and networking of all key stakeholders involved with research;
3. Protection of our biodiversity through the establishment of national parks and reserves;
4. Community Empowerment through provision of appropriate training for SME's and identification of alternative livelihood schemes;
5. Streamlining of systems and processes to better service the Fijians;
6. Empowerment of women to participate competitively in the market of forest products;
7. Enhancement of Department staff to provide efficient and effective service delivery;
8. Reducing climate change impact; and
9. Provision of affordable housing to Fijians through our Pine Maritime Project.

1.0 PORTFOLIO LEADERSHIP, POLICY ADVICE AND SECRETARIAT SUPPORT

1.1 Staff

The Department has a total staff complement of 227 staff out of which 118 are established and 68 are wage earners. In addition, the Department employed a total of 41 project staff to facilitate the timely delivery of project outputs.

1.2 Budget Allocation & Expenditure

The Department was allocated a total budget of $9.2 million of which $6.2 million was for Operating expenditure, $2.4 million was for Capital expenditure and $0.6 million was for VAT. The

Department utilised $9.0 million which was 98.0% of the allocated budget. Expenditure details can be found in Appendix 1.

2.0 FOREST SECTOR DEVELOPMENT

2.1 Forest Resource Base

Table 1: Forest areas by Division

Division	Natural	Pine	Mahogany	Mangrove	TOTAL
	Hectares				
Northern	407,840	21,572	26,100	29,720	485,232
Central/Eastern	330,620	3,146	26,500	13,890	374,156
Western	252,140	63,781	15,100	16,700	347,721
Grand Total	**990,600**	**88,499**	**67,700**	**60,310**	**1,207,109**

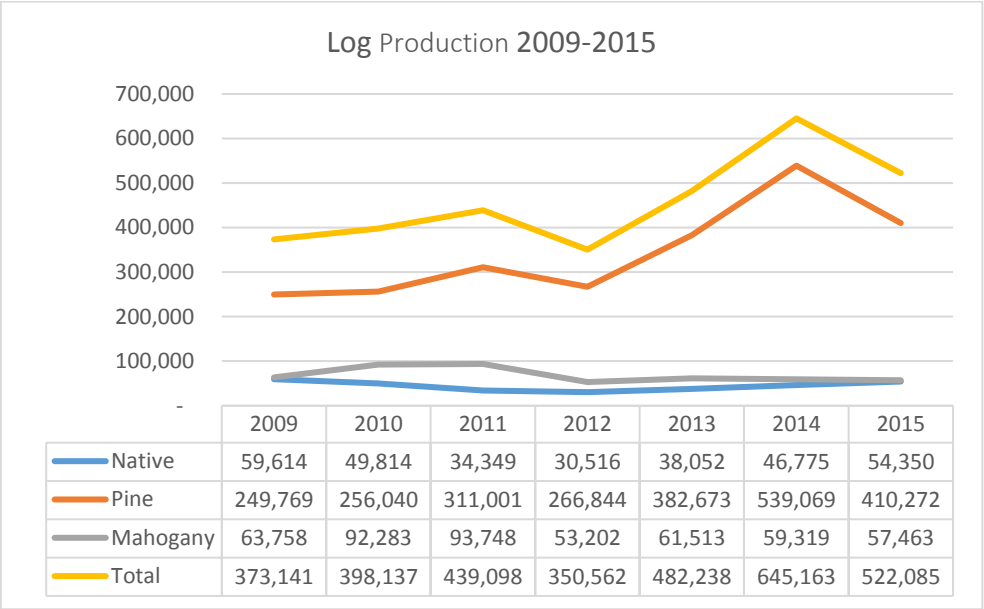
Fiji has a total of 1.2 million hectares of forest areas, of which natural (indigenous) forests comprises 82.1%, Pine comprises 7.3%, Mahogany comprises 5.6% and Mangrove comprises 5.0%. Northern division has the most forest areas covering 40.2% of total forest areas, followed by Central Eastern division with 31.0% and Western division with 28.8%.

2.2 Forest Production

Table 2: Log production data for 2015

Forests	Total (m3)
Natural Forests	54,350
Mahogany	57,463
Pines	410,272
Total	**522,085**

2.2.1 National Log Production



	2009	2010	2011	2012	2013	2014	2015
Native	59,614	49,814	34,349	30,516	38,052	46,775	54,350
Pine	249,769	256,040	311,001	266,844	382,673	539,069	410,272
Mahogany	63,758	92,283	93,748	53,202	61,513	59,319	57,463
Total	373,141	398,137	439,098	350,562	482,238	645,163	522,085

Fig 1.0: Annual Log Production 2009 to 2015

2.3 Downstream Processing

Total of 59 sawmill licenses were issued during 2015 together with 13 provisional licenses. Detailed below in Table 4, the central eastern division showed that majority of the sawmills were non-operational during this year.

The Department facilitated the issuance of portable mill license as the demand for these machines increased due to the following reasons:

- Portable mills were used to rip lower grade Mahogany logs which were not processed by the static mills; and
- The facilitation of setting up portable mills in communities is also supported as it created employment and lowered cost of timber production by communities thus feeds into the larger goal creating employment opportunities and improving standard of living in the rural communities.

2.3.1 Sawmills in Fiji

Table 4: Sawmills in Fiji by Forestry Divisions

Type of license	Southern/Central Eastern		Western division		Northern Division	
	Licensed	Unlicensed	Licensed	Unlicensed	Licensed	Unlicensed
Static mills	6	2	10	1	11	0
Portable mills	13	18	9	9	10	4
Total	**19**	**20**	**19**	**10**	**21**	**4**

Table 5: Summarized sawmill licensing status for Fiji for 2015

Type of license	No. of mills
Static licensed	27
Static unlicensed	3
Sub-total	30
Portable licensed	32
Portable unlicensed	31
Provisional portable license	13
Sub-total	76
Total sawmills in Fiji	**106**

2.3.2 Sawmill Production 2015

The total sawn timber production for 2015 was 70,713.633m^3 while the total log volume input was 140,312.72m^3. Thus the average sawmills recovery rate was 50.48% as detailed in the table below:

Table 6: Sawmill productions per different division

Division	Input volume (m^3)	Output volume (m^3)	Recovery
Northern	60,669.520	29,489.480	48.61%
Southern / Central Eastern	45,880.380	24,624.785	53.67%
Western	33,762.820	16,599.368	49.16%
Total	**140,312.72m^3**	**70,713.633m^3**	**Average: 50.48%**

Table 7: Summary of sawmill production for 2015

Description of sawmill production	Situation
Species type	Pine, Mahogany, Native species
Total log volume input	140,312.720m^3
Total sawn timber volume output	70,713.633m^3
Sawmill recovery rate (%)	50.48%

2.3.3 Timber Treatment Plants

Table 8: Timber Treatment Plants in Fiji by Forestry Divisions

Division	Existing	New	Total
Northern	7	1	**8**
Central/Eastern	8		**8**
Western	8		**8**
Total	**23**	**1**	**24**

2.4 Exports & Imports - 2015

2.4.1 Exports

Table 9: Forestry Export Data for Fiji

Products	Volume				Value (FJD)
	M3	Kg	Mt	Pc	
Pine chips			304,000		43,930,315
Sawn timber	15,076				26,220,425
Components	4,089				24,361,526
Decking	1,069				1,916,689
Plywood	676				1,422,485
Sandalwood		3,174			662,258
Slabs	286				392,242
Mouldings	158				231,461
Crotch	164				208,291
Veneer	35				135,687
Blanks	9,444				95,159
Sticks		5,497			32,848
Posts	15				6,996
Finished Product				44	5,480
Form Seal Board	1				2,100
Hardboard	0				1,400
Others	450				585,395
Total	**31,465**	**8,671**	**304,000**	**44**	**100,210,755**

Total exports of forestry products for 2015 amounted to $100.2 million, an increase of 24.3% when compared to total forestry export value of $80.6 million in 2014. Pine chips dominated exports accounting for 43.8% of total exports.

2.4.1.1 Exports by Major Destination

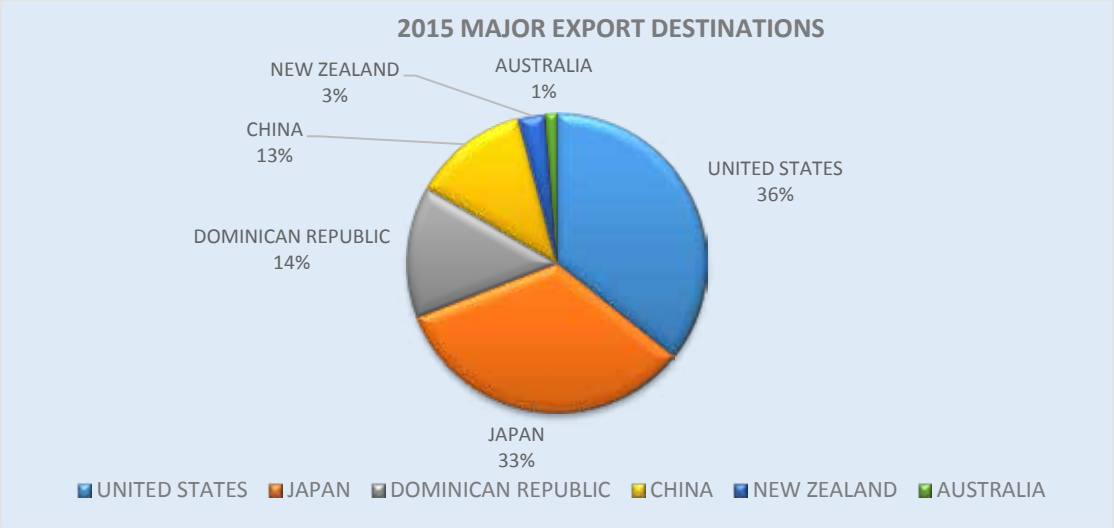


Fig 2.0: Exports by major destinations - 2015

The major export destination in 2015 is the United States accounting for 36% of forestry exports due to exports of mahogany; followed by Japan with 33% of exports mainly due to exports of Pine chips. Dominican Republic, accounting for 14% of forestry exports, is the third major export destination mainly attributed to exports of mahogany.

2.4.2 Imports

Table 11: Forestry Imports for 2015

Product Type	Volume			Value
	M^3	Kg	Pc (million splints)	
Sawn Timber	2,177.4			3,479,858.4
Plywood	2,055.7			2,521,919.6
Poles	1,615.4			1,768,529.7
Togue & Grove	953.3			1,320,692.5
HardBoard	1,367.1			1,298,517.8
Form Seal Board	1,213.9			1,017,961.3
Laminated Beam	249.6			667,172.6
Match Splint			1,468.8	411,347.6
Cross Arm	114.4			409,486.1
Sandalwood		17.8		373,000.0
Moulding	269.1			328,172.6
Wooden Reels	235.0			288,630.5
Decking	718.9			254,230.3
Shingles	283.8			253,980.5
Particles Board	283.0			251,371.5
Melteca Board	213.5			224,812.5

Product Type	Volume			Value
	M³	Kg	Pc (million splints)	
Gib Board	379.6			203,943.6
JD4 Finger Joint	30.2			50,808.0
Lining	62.0			46,965.0
White Board	44.8			46,757.8
Cement Board	75.0			31,700.0
Shiplap	25.0			18,116.0
Soft Board	17.4			8,745.2
Block Board	33.4			7,400.0
Post	3.9			6,166.0
Seratone Classics Board	0.4			4,142.9
Total	**12,421.8**	**17.8**	**1,468.8**	**15,294,427.8**

3.0 GOVERNMENT SERVICES

3.1 Forest Law Enforcement: Licensing, Compliance & Monitoring

Sub Output Areas

The sub-output areas for this program are Forest Logging & Timber Processing.

3.1.1 Forestry - Annual License

Division	Total no. of license issued
Northern	181
Western	194
Central/Eastern	141
TOTAL	**516**

A total of 516 licenses were issued by the Department in 2015. This included new licenses and renewed licenses. Apart from logging licenses, other licenses issued include collection of minor forest produce such as firewood.

3.1.2 Timber Processing

Fifty nine (59) sawmills were licensed to operate during the year with a total sawmill log intake capacity was 140,312.72 cubic meters.

A total of 23 treatment plants were licensed to operate in the country during the year and all were operational. Out of the total 15 kiln driers in the country, only 12 were operational.

3.1.3 Monitoring, Compliance and Surveillance

The Monitoring, Compliance and Surveillance of Forest Harvesting Operations continued to be carried out by staff of the Forestry Training Centre and MCS Project Officer in 2015. A total of eight (8) activities were completed by the Department in 2015 that included awareness, training and monitoring of forest harvesting operations.

Continuous inconsistencies of Licence Issuance, documentation and improper verification process within the Division's jurisdictions. Around 70% of Right Licence issued or renewed during 2015 was non-adherences to the Standard Licensing & Harvesting Procedures (SLHP). Legal perspective could be categorised for these Licences as null and void due to the non-submission of supporting documents as outlined in the SLHP.

The quality and totality of field verification processes and procedures at Divisional level by Beat Officer's and Forester Timber Production needs to be re-emphasised. Sub-standard Harvesting Plans were submitted and endorsed by the licensing Officer's in the three (3) Divisions.

Increase of approximately 14% as average scores of Fiji Forest Harvesting Code of Practice (FFHCOP) compliance of field operations nationally by harvesting contractors compared to 2014.

The mean score compliance for the field National operations is 73% compared to 75% for the Northern, 69% for the Western and 74% as for the Central Eastern Divisions. A total of 51 Contractors were objectively quantified with the content of the Field Monitoring Form as basis of assessment.

Common breaches according to the Forest Decree 1992 were the:

I. Negligence of damage to trees; and
II. Violation of conditions in the licence.

A total of $26,000 of fines and penalties was imposed to harvesting contractors in 2015 due to non-compliance of FFHCOP in comparison to the $74,000 in 2014. It is a 35% decrease in fines amount and compliance increase comparatively.

A total of 40 Improvement Notices was issued to respective Contractors for immediate undertaking of critical operations which may lead to code breach with a 7 days' timeframe for corrective actions. Majority of the notice was for the substandard machines in terms of OHS and serious oil leakage. The team revisited all machines that need to be fitted with proper safety features upon the expiry of 7 days as timeline.

An average of 81% of equipment and machines standard was the result of individual assessment. Unsafe machines being in operation during the harvesting operations were being assessed and issued with Improvement Notices or suspended from being engaged in harvesting. Comparatively, for the Northern Division was 76%, Western Division was 85.7% and for the Eastern Central a compliance of 80.8%. However, even though the average score of machines elements are encouraging, it does not reflect the worthiness and safety aspect of machines and equipment's.

MoU's, Certification and Appointment processes of Harvesting Planners and Forest Practice Officer's (FPO) are a milestone for the Department. 3 MoU's to be endorsed by the PSFF and with

the respective PS and CEO of the MEPIR and LTA in the first or the second Quarter of 2016. A multi-stakeholders approach was initiated with the aim of continuous effective and efficient implementation of the FFHCOP. 38 Harvesting Planners and 20 FPOs' was assessed during the year through competency based Evidence Guidelines.

Twenty seven (27) Contractors are in the upper limits and twenty four are in lower limits of the mean (73%). Majority of the Contractors scored extremely well and has implemented a range of 70 – 79% field operations in accordance to the code requirements.

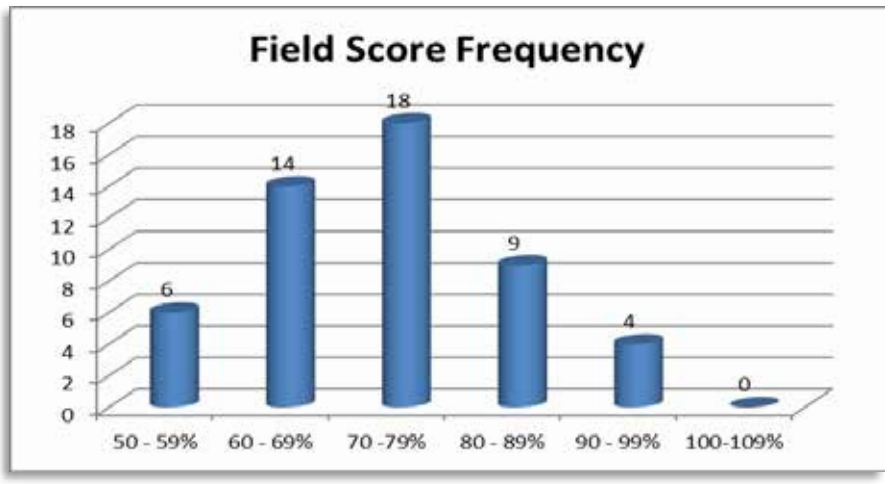


Fig 3.0: Monitoring Results of Harvesting Contractors

A total of 556 individuals have been trained under the eight (8) different units conducted in 2015 while 51 contractors were monitored throughout the 3 divisions (North, West and Central/Eastern).

Table 12: Forest harvesting trainings provided to the Timber Production Officer's (TPO's) and industry stakeholders

No.	Title of Training	No. of Participants	
		Department Staff	Stakeholders
1	FFHCOP Awareness		224
2	First Aid Bridging Course		89
3	Supervision Module I		59
4	Supervision Module 2		52
5	Supervision Module 3		41
6	Harvesting Plan Training		30
7	Skills Test		51
8	Machine Test		10
	Total		**556**

3.2 Forest Management: Forest Resource Information

Sub Output Areas

Responsible for the management of Forest Information System (FIS) and databank; management of natural forests through permanent sample plots, administration of mapping and surveys of forest boundaries and forest functions and services; and co-ordination and facilitation of forest international and regional conventions and agreements.

3.2.1 National Monitoring, Reporting & verification (MRV) System

After the map completion, the GIS unit is currently working with Department of Lands on overlaying topographic layers and labels of villages, settlements, towns, etc., on the new forest cover map. Since the Department's forest cover layers and the topographic layers from Lands Department are not in the same map projection, the coastline boundaries for the two map layers was not matched. Cleaning of these layers started in 2014 where STA cartographer was temporarily based at Lands Department for the map editing and cleaning. It was unfortunate that we could not continue with the map editing at Lands Department for this year due to the workload that they have. The Department was able to print 10 completed map sheets with 1,100 copies each during 2015.

Fig 4.0: Part of Forest Cover Map Sheet with layers from Lands Department

3.2.2 Forest Resource Assessment

With the completion of forest cover mapping, new forest areas were extracted from each polygon that they present. Forest areas are based on the two classes that were adopted for the new forest cover classification.

Table 13: Forest Areas by the seven main islands

Islands	Land Area (ha)	Indigenous Forest Cover (ha)			Indigenous Forest Cover (%)		
		Native	Closed	Open	Native	Closed	Open
Viti Levu	1,038,900	517,702	324,796	192,906	50	31	19
Vanua Levu	554,257	314,360	150,642	163,719	57	27	30
Taveuni	43,400	31,712	23,668	8,044	73	55	19
Kadavu	41,100	29,113	16,621	12,491	71	40	30
Gau	19,000	8,017	4,841	3,176	42	25	17
Koro	10,890	6,727	2,212	4,515	62	20	41
Ovalau	10,640	7,237	3,673	3,564	68	35	33
Total	**1,718,187**	**914,868**	**526,453**	**388,415**	**53**	**31**	**23**

The table above details the total indigenous forest cover for the seven main islands that were mapped for the last national forest inventory. With the total of 54 percent that were mapped as forest, 31 percent were closed forest while the remaining 23 percent were open forest.

3.2.3 Publication of National Forest Inventory (NFI) 2007

The draft National Forest Inventory 2007 was completed during the year however the report will be only released once a proper analysis of the field data's has been completed. The Department is currently working on analyzing the datasets to provide the public with realistic NFI information.

3.2.4 Permanent Sample Plots

The Department commenced with the field measurement for the first 6 months as project staffs attended a 6 months training at FTC and then continued with the field measurement after their training. A total of 38 plots were measured during the year. All data from field forms were also updated into the PSP database.

Table 14: Count of plots measured by province

Province	Measured Plots
Ba	3
Cakaudrove	5
Navosa	5
Serua	5
Macuata	3
Ra	3
Tailevu	3
Namosi	1
Grand Total	**38**

The plot measurement was focused in Viti Levu for the three quarters of the year and moved to Vanua Levu during the last quarter. Majority of the PSP's were measured within the province of Ba.

Fig 5.0: Measured plots within Viti Levu

Fig 6.0: Measured plots within Vanua Levu

3.2.5 Reducing Emissions from Deforestation and Forest Degradation (REDD Plus)

A total of 5 key outputs was to be delivered, 80% of all outputs have been achieved. The achievements of activities during 2015 in the 5 key outputs are as follows:

Establishment of the REDD Plus Unit

Unit was established during the year where four officer's continued to be funded by the REDD Plus project funds and recruitment of Advisor funded from the FCPF fund.

Strengthen MRV and Safeguards (Decisions)

The Strategic Environmental Social Assessment (SESA) consultancy procurement started during the year involving the tender process. Also, the GIS Training organized in Indonesia by the Indonesian counterparts was attended by two staff of the Forestry Department.

REDD Plus Sub National to National Transitional Awareness

The following activities were achieved under the National to National Transitional Awareness for REDD Plus:

- Launching of the Forest Carbon Partnership Facility (FCPF) grant by World Bank and Readiness Preparation Proposal (RPP);
- Civil Societies Organization's (CSO) platform formation commenced during the year targeting Non-Government Organizations, Faith Based Organizations, Women Groups and Youth Groups;
- REDD Plus unit participated in the National Climate Change Summit organized by the National Climate Change Unit, Ministry of Foreign Affairs from 8th to 10th September 2015 in Levuka;
- Three awareness Workshops conducted for National iTaukei Resource Owner Committee (NTROC), CSO's and members; and
- Quarterly REDD Plus Steering Committee meetings were conducted during the year; and
- Demarcation of the Emalu Pilot Project Site for the Archaeological Sites which was undertaken by Fiji Museum.

Fig 7.0: FCPF launch by World Bank and demarcation of archaeological sites at Emalu

REDD Plus Strategy

The REDD Plus Strategy compilation is in progress and will be achieved in 2018 at the end of the Readiness process and all the current activities undertaken under REDD Plus will lead to the completion of this document.

Reforestation of Grassland and Land-use Plan Developed

A total of 1,804 native tree plants were used for the replanting program at this reforestation site and planted at a planting space of 5 meters x 5 meters covering an area of 7.2 hectares. The prolonged drought in the area experienced during the dry season contributed to 75 percent

survival rate of the planted seedlings. The reforestation program will continue in 2016 as the project has planned to reforest the grassland areas adjacent to the REDD Plus pilot project site at Emalu following the land use map drafted by landowners, land users and guided by technical officers. The nursery was also established in 2014 at Emalu Village and the villagers were trained on how to raise and manage tree seedlings that will enhance the seedling stock required for this replanting program at this site. Other associated activities for reforestation programs at this site included the land use ground truthing survey, setting up of agroforestry demo plots, monitoring and creating opportunities for alternative livelihood programs for women and the community.

Fig 8.0: The Emalu community involved with Land use planning and tree replanting at the pilot project site

3.3 Education and Training

Sub Output Areas

Role is to manage Human Resource Development and Planning of the Forestry Sector. Also, responsible for the provision of training, skill development and capacity building, conducting training needs assessment and maintenance of qualified and skilled workforce.

3.3.1 Forestry Technical Skills

The competency based training to the forest industry concentrates on skills involved in operating chainsaws, skidders, loader and bulldozer training, logging planning, supervision and management. It integrates theories, knowledge and skills in the work environment with the aim of improving efficiency and quality of work.

The Education and Training Division was not able to fulfil all the request coming from the industries in regards to chainsaw training. However, the year 2015 has seen the highest number of trainings conducted for the industries. Trainings conducted in 2015 exceeded the 2014 number by 45%.

Table 15: Trainings conducted in 2015

No.	Title of Training	Participants	
		Industry	Resource Owners
1	Skills Test Training	49	
2	Harvest Tree Manual Basic	74	247
3	Chainsaw Mechanic	16	
	Total	139	247

A total of 386 personnel have been trained in 2015 from different stakeholders. This shows an increase of 119 personnel trained from the 2014 numbers. The only decrease was for the

maritime island where training was only conducted on Matuku Island. Resource owners continue to have the biggest number trained for 2015 which is similar to the 2014 trend.

3.3.2 Sustainable Forest Management Training

Sustainable Forest Management (SFM) is the process of managing forest to achieve one or more clearly specified objectives of management with regard to the production of continuous flow of desired forest products and services without undue undesirable effects on the physical and social environment. It ensures that forest resources are preserved to meet the needs of the current and future generations.

It is the practice of regulating forest resources to meet the needs of society and industry while preserving the forest's health. Therefore, training on sustainable forest management is always looking to strike a balance between the demand for forest resources and the vitality of the forest.

The SFM Training program aims to educate communities on the national advantages of managing their forest resources in a sustainable manner. The guidelines of SFM are set in the Fiji Forest Policy Statement 2007.

Resource owners will manage their forest resources in compliance with the Forest Management Standard, via forest management companies, with the assistance and guidance provided by the Department, the iTaukei Land Trust Board (iTLTB) and the Ministry of iTaukei Affairs will assist the Department with scaling logs.

The Landowners will be involved in harvesting and processing their trees and will be responsible for rehabilitating forest areas. Landowner groups will be encouraged to take equity in commercial forest developments and to become engaged in community forestry approaches.

In view of community engagements, the Education & Training Division conducted 3 SFM Trainings in 2015 at the following sites:

- Tikina Nawaka, Nadi
- Levuka, Ovalau
- Forestry Training Centre, Colo-i-Suva for communities of Ra, Tailevu and Nadi

The focus of conducting SFM trainings and awareness in Nadi is to address the recent flooding of Nadi Town and the surrounding areas. Training was focused on Tikina Nawaka which includes Nawaka and Vatutu Village.

3.4 Research and Publication

Sub Output Areas

Silviculture Research and Resource Assessment Division

Responsible for the establishment and care of forest stands; management of tree nurseries and thinning of forests to encourage natural growth of sprouts or seedlings of desired varieties; conduct of research in problems of forest propagation and culture as tree growth rate, effects of thinning on forest yield, duration of seed viability, and effects of fire and animal grazing on growth, seed production, and germination of different species and development of techniques for measuring and identifying trees.

Timber Utilization Research & Product Development Division

Responsible for the research and investigation of wood properties of all native and exotic timber, formulation, establishment and implementation of quality management system for timber processing and timber utilization; and administer timber trade through product development, quality controls.

3.4.1 Research into Silvicutural Practices of Native and Exotic Tree Species

The Department continued with its research on three major activities for the establishment of three *Callophyllum inophyllum* Dilo, three Sandalwood spacing trials in open forest, secondly forest and agroforestry systems, and monthly phenology assessment (flowering, fruiting, seeding and maturity) of the indigenous tree species for the compilation of a guide to local tree species flowering, fruiting, seeding and maturity.

Growth Studies on *Aquilaria sp.* (Agarwood)

Agarwood or agar is a dark resinous heart-wood produced in the heartwood of *Aquilaria* and *Gyrinops* trees as a result of fungal infection. The product is a dark aromatic resin in the heartwood called aloes wood, or agarwood, highly sought-after for incense and perfumes. The current global market for agarwood is in the range of US$6 – 8 billion and is growing rapidly.

A small block of Agarwood was established at Colo-I-Suva in April, 2015, with potted seedlings obtained from Forestry Fiji Ltd in Ra. Forty (40) trees were planted in ten (10) 4-tree rows at 4m x 4m spacing. The objective is to study the growth dynamics of the species, and to establish a seed stand.

After 8 months the Agarwood block performed quite well attaining an average mean height of 50 cm, maximum height 131 cm (Figure 1), minimum height 35 cm, and survival of 100%.

Fig 9.0: Young
Agarwood Trees (Aguilaria sp) at Colo-I-Suva

Growth Studies on *C. inophyllum* (Dilo)

Calophyllum inophyllum (Dilo) is a common tree in coastal vegetation in the Pacific Islands. It is salt spray and a wind-tolerant species, and very important for coastal protection. Dilo also produces high quality timber, and oil derived from the seeds is used for medicine and cosmetics.

The objective of this study is to investigate the genetic variation and phenotypic characteristics of *C. inophyllum* in Pacific islands, and to use data for breeding populations that adapts well in various regional environments and future climate change adaptation programs.

Fig 10.0: Dilo Trial at Vunimaqo

Three (3) plots were established at Vunimaqo (May 2014), Sigatoka Sand Dunes (July, 2014), and Mataso (December, 2015). Twenty-one (21) Dilo families from Japan and Fiji were included.

After 18 months of establishment the plants have been noted to be surviving well and looking healthy. Assessments are conducted on quarterly basis to assess plant height. At the end of 2015 the survival rate of Dilo seedlings in these 3 plots was 83%.

Forest Restoration Trial in Degraded Areas

Two (2) Forest Restoration Plots were established at Nanukuloa (March, 2015), and Yavuna (July, 2015). The objective was to study performances of different tree species in degraded sites and response of plants to various silvicultural treatments.

Since there are too few natural regenerants to bring about rapid canopy closure through Assisted Natural Regeneration (ANR) i.e. <3,100/ha, the Framework Species Method (FSM) was applied. More than 600 trees of eleven (11) native/exotic tree species were planted in Random Complete Block (RCB) design replicated 3 times in 14 tree row plots inter-planted with sandalwood and other species, at 4m x 2m spacing.

In FSM tree planting rapidly restore a tropical forest ecosystem, shade out weeds (site "re-capture") and attract seed-dispersing animals (recruitment).

Fig 11.0: Establishment of Forest Restoration Trials, at Nanukuloa (L), and Yavuna (R)

Quarterly assessments are undertaken in these plots and exotic tree species such as *A. Auricoriformis* and Rose wood have a steady growth rate while local native species are pretty slow growing.

At Nanukuloa, A. auricorliformis was the tallest (121.7cm), and Teak the shortest (17.6 cm), after 8 months. A. auricorliformis was also the highest in survival (100%) and Dakua salusalu the lowest (27%). At Yavuna Rosewood was the tallest (52.5 cm) and Aumunu the shortest (8.6 cm), at 4 months. Teak and Vesi were the highest in survival (85.7%) and Doi (38.1%) the lowest.

Mixed-Species Woodlot Trial

This project is an 'on-farm' research activity and targeted for farmers who have surplus land which could be utilized to grow mixed-species of high-value trees to produce top grade cabinet timber and maximize returns from the land. Two (2) trials were established, in Colo-I-Suva

(March, 2015), and in Mrs. Salochna Wati's farm in Vaqia, Ba (December, 2015). Four (4) of the most valuable timber species in the world were included in the trial as shown in Figure 12.

Fig 12.0: The four (4) species in the Mixed - Species Trial, Colo-I-Suva: A T. grandis(Teak); B S. macrophylla (Mahogany Pro. Tela Honduras); C D. cochinchinensis (Siamese Rosewood); D F. brayleana (Queensland Maple).

The Colo-I-Suva trial was assessed after 9 months with results shown in Figure 12.0. Queensland Maple (88.7 cm) was recorded the tallest, and Teak the shortest (17.4cm). Teak had the highest survival of 100% while Siamese Rosewood survival of 87.5%.

Sandalwood Spacing Trial

No proper spacing trial has been done on sandalwood in Fiji. In this trial three (3) spacing are compared: 3m x 3m, 4m x 4m, 6m x 3m. Trial plots were established in Kumi (July, 2014), Wainiyabia, (August, 2014), and Colo-I-Suva (December, 2014). The objective is to establish a spacing trial for studying the effect of spacing on the growth of sandalwood, and for demonstration.

Fig 13.0: Sandalwood spacing trail

The influence of spacing on growth and survival of sandalwood had not really taken effect as the plants were still young lacking competition. The Kumi plot performed better in both height and survival because it was older (16 months), and site is on good fertile land.

Development and Standardization of Seed and Nursery Technology

A number of seed and nursery experiments were conducted during the year for the development of a seed and nursery manual. This however, is on-going and will continue to 2016, until all the necessary experiments and results are set and analyzed.

Fig 14.0: Germination experiments on some species

Phenology Observation of Indigenous Tree Species

Phenology observation of indigenous tree species was carried out in the phenology plots at Nadarivatu Forest Reserve that has a population of 78 trees of various species. It is carried out on a monthly basis, on every 22nd day of each month, and results are shown in the table below:

Table 16: Phenology Observation of indigenous tree species

Species	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Dakua makadre												
Damanu												
Laubu												
Marasa												
Kaunigai												
Sa												
Kauceuti												
Kaudamu												

Yellow - Flowering; Green - Fruiting; Brown – Mature

Commodity Profiling of Priority Species

Under this activity twenty five (25) tree species has been identified and necessary information collated for profiling the tree species, with the assistance of TUD and USP-IAS. This Guide is aimed at promoting the key timber tree species to investors into the country who wish to know more about timber tree resources of Fiji. The Guide is in the final stages of completion and a draft copy is shown in Figure 15, below.

Fig 15: Draft copy of Guide with cover page (L) and a sample page on *Agathis Macrrophylla* (R)

S. yasi Clonal Seed Orchard (CSO) and Gene Conservation Area (GCA)

Study on Genetic Diversity of Native Sandalwood (S. yasi) in Fiji and Tonga. The strategy to conserve and develop *S. yasi* requires basic information on its genetic structure and diversity, as well as assessment of the impact of hybridization with introduced species.

In this project CSIRO in collaboration with SRD and Tonga Forestry Department conducted this research activity to characterize and quantify the genetic diversity of native sandalwood (*Santalum yasi*) in Fiji and Tonga for use in future tree improvement and germplasm conservation programs.

Planted and wild populations of natural and introduced sandalwood were surveyed in Fiji (Figure 16) and Tonga, morphological and molecular genetic markers were applied to assess the levels of spontaneous hybridization among the sandalwoods.

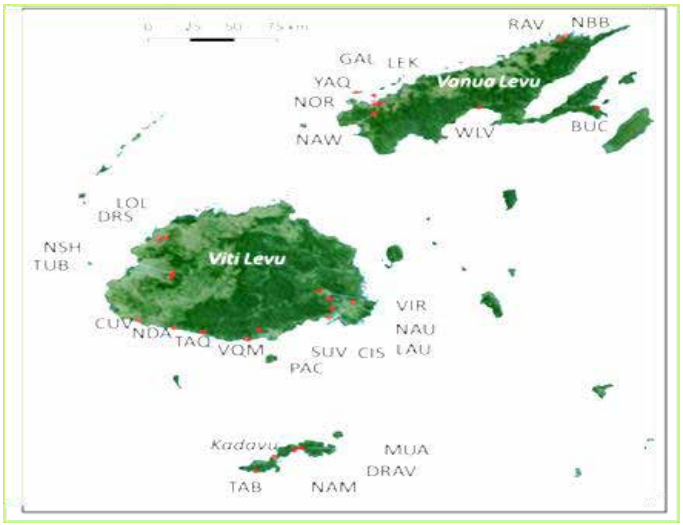


Fig 16: Locations of sample collections in Fiji. Source: David Bush, CSIRO

Fig 17: SRD staff collecting sandalwood leaf samples for DNA analysis, with CSIRO scientists (Mr. David Bush & Dr. Lex Thompson)

Preliminary results showed that morphological markers including leaf size and shape, fruit characteristics and general habit of the tree can be effective for differentiating pure *S. yasi* from interspecific hybrids. Also, the use of molecular markers provided greater certainty in differentiating pure *S. yasi* from *S. album* and their interspecific hybrid. The final report will be published in 2016.

3.4.2 Second-Rotation Logging - Nakavu NFMPP Site

The 2nd rotation logging at Nakavu NFMPP site started in 11/02/14, in Compartment 3 and 4 and total volume removed was 382.142 m3. In 2015 a total of 245.961 m3 was removed from Compartment 3 and 7. Altogether, a total of 628.143 m3 was removed from 2014 to 2015 which represented only 10% of total volume of 6,577.55 m³ to be removed from 9 compartments (Fig 18).

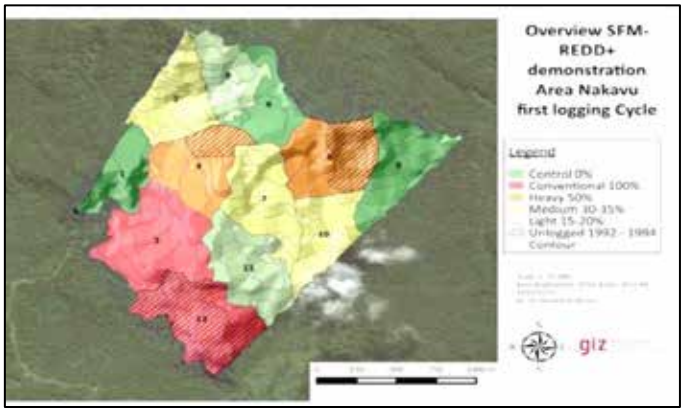


Fig 18: An overview of the Nakavu NFMPP area where the 2nd rotation logging is being undertaken

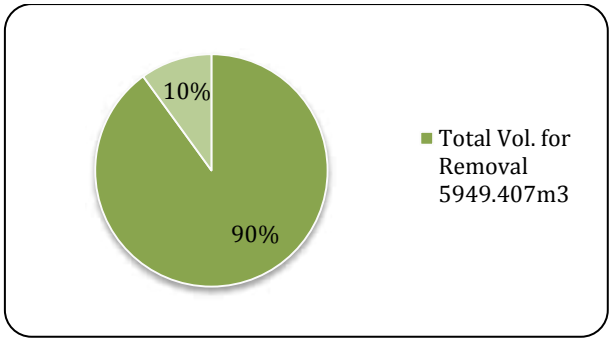


Fig 19: Total volume of logs removed during the 2nd rotation logging, from 2014 to 2015

From the 4th quarter of 2014 logging operation came to a standstill when Logging Contractor withdrew from logging site after complaining of high concentration of non-profitable trees within the approved compartments. Logging resumed in the 3rd quarter of 2015.

Table 17: Log removal by quarter from 2014 to 2015, at the NFMPP site Nakavu

Year	Quarter	Compt.	Total Vol. (m3)	Remarks
2014	1	3	66.882	
	2	4	108.700	
	3	4	206.600	
	4	-	-	Contractor withdrew from harvesting
2015	1	-	-	No logging
	2	-	-	No logging
	3 & 4	7	191.407	
	4	3	54.554	
Grand Total			**628.143 m3**	

A new contract was signed with a new contractor whereby Forestry Department (TUD) pays logs delivered by contractor to the Nasinu sawmill at the rate of $120/m3, and TUD processes and sells timber to recover costs. Logging resumed under the new arrangement from 3rd quarter 2015.

3.4.3 PSP Assessment - Drawa SFM Project

The Drawa Sustainable Forest Management (SFM) project is a model progression from the NFMPP at Nakavu. The objective is to improve guidelines for reduced impact logging and silvicultural principles which was developed from experiences during the NFMPP. The two (2)-yearly tree assessment was undertaken at the Drawa Project Area from 28/12 – 8/10/15. There are 8 PSP's, and the 2 mono-typical regeneration plot of Dakua salusalu, established by SPC-GIZ in 2008. All marked trees within the PSP's were measured, and an aggregate total of 766 were recorded with 68 dead. This excludes the 1,974 (< 3cm DBH) trees counted within the circular plots. During this assessment maintenance of the PSP's was also undertaken.

Fig 20: Maintenance & assessment of the PSP's at the SFM pilot project sit at Drawa Block, Vanua Levu.

3.4.4 Forest Health

Forest Health Section conducts research studies on insect and pests that affects forests and forest products. The scope of research is to survey, collect, rear timber infesting insects, to liaise with timber inspectors and quarantine officers for imports of timber products and the periodical trapping at ports of entry, plantations and nursery. Some of the important insects affecting wood products and forest trees in Fiji are: termites, powder post beetles, bark beetles, ambrosia

beetles and *Cerambycids*. Forest entomology focuses on insects in forests, their damage to trees and shrubs and the interaction of the insects with plants and animals. Beetles and Termites are the common forestry pests.

Forest pathology is concerned with diseases in trees, usually caused by pathogens i.e. fungi, bacteria or virus and causes deviation from the normal function of a plant. Symptoms vary from leaf fall, chlorosis, dieback, distortion, galling, mining, resinosis, skeletonizing, spots, necrosis etc.

Forest Health Surveillance and Monitoring

This activity was undertaken in collaboration with the ACIAR Project back in 2003 and it is an on-going activity. It is a monitoring tool in assessing population trends of insects within port areas, container depots, forest plantations and nurseries.

There are three types of static traps employed in the field: Panel, Lindgren and Delta traps. These traps are hung at respective locations and monitored fortnightly. Insects collected every fortnight are cleaned, sorted and identified to their respective families. The traps were placed at the Kings Suva Wharf, Export Freight Services, Natovi Port and Lautoka Wharf.

A 20 a total of 87 insects were sampled using static traps from the Suva wharf, EFS, Natovi Jetty and Lautoka wharf on a quarterly period in 2015 (Fig 21). Of these, 29% were within the Coleopteran family *Scolytidae* which is major pest to forestry and timber products. Quarter 4 i.e. Oct - Dec 2015 yielded the highest numbers of insects trapped and this could be attributed to the onset of the rainy season and consequently, the availability of favorable habitat and food supply. Quarter 3 i.e. Jul- Sept 2015 yielded the least numbers of insects possibly due to adverse dry weather conditions.

Nocturnal Surveys: Light Trapping

Nocturnal surveys were conducted using ultra violet (UV) light traps at selected sites. The traps were set within a 1ha plot of the selected habitat type (i.e. Pine plantation, Mahogany plantation, pristine forest, disturbed forest). These were set up and left to run for 3 hour periods from 6pm-9pm. Beetles and other nocturnal insects were passively sampled on each sampling occasion. Insect specimens were sorted to Order and then to Family level. Specimens are currently being curated and stored at the Entomology Lab.

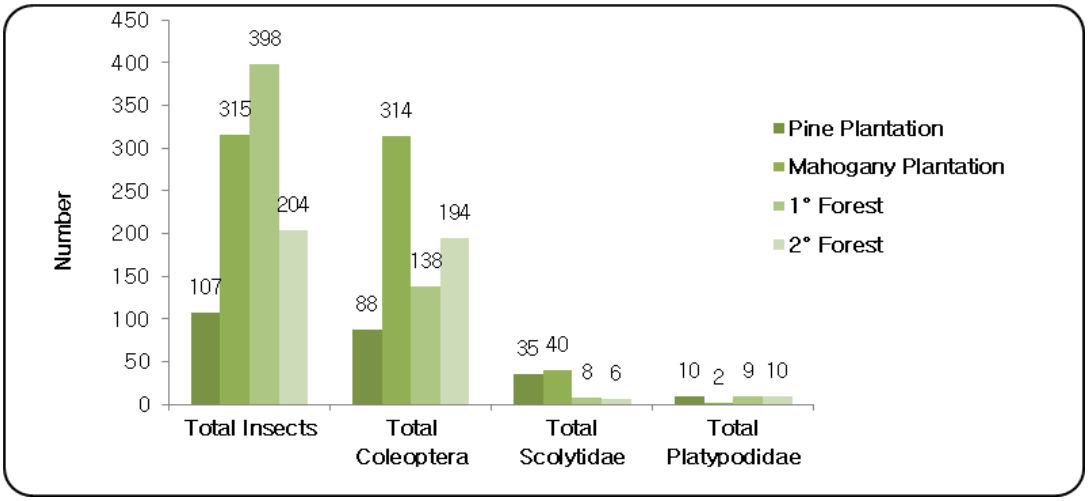


Fig 21: Number of insects trapped by light trapping within various forest types

A total of 1,024 insects were sampled by light trapping within four different forest types i.e. pine plantations, mahogany plantations, 1° forest and a 2° forest types (Figure 21). The objective was to identify suitable indicators of habitat types and the study was focused on the Coleopteran (beetle) families. For the forest pests within the families *Scolytidae* & *Platypodidae*, it was evident that within the forest plantations (Pine & Mahogany), traps yielded the greatest numbers of *Scolytids* i.e. 35 and 40 respectively whilst in the forested areas *Scolytid* records were quite low i.e. 8 and 6 respectively for the 1 and 2 forests. This is a good indication that the major pest of trees i.e. *Scolytids* are less abundant in native forests and more abundant in mono plantations.

Within the 1° forest (Sovi Basin), the rare beetle family *Cerambycidae* (i.e. long-horned beetles) recorded 10 individuals (and is not recorded from the other 3 sites surveyed) and previous studies have shown that the presence of this beetle family is a good indication that the forest is unharmed. Also, coleopteran families were more diverse within native forests than in plantations and are another indication that services provided by these beetles within the ecosystems (i.e. pollination, decomposition, herbivory, etc.) are also integral.

Timber baiting experiments

Timber baits of 16 kg were cut bearing in mind the manipulation of log ages at different age categories of 0-5 years, 5-10 years and 10-15 years (Fig 22). Replicate baits of 90cm in lengths were cut from the respective age categories weighed and hung accordingly i.e. within their age groups for two timber species i.e. Pine and Mahogany. These baits are exposed in the field for one month to allow for the ovipostion of female adults. The baits were then removed after a month of field exposure to ovipositing females and collected in dark cage cloths for rearing at the rearing shed at Colo-i-Suva.

Fig 22: Timber bait experiments in the field

At the rearing shed insects emerging were collected fortnightly and further identification conducted in the SRD Entomology lab to contribute data towards the pest manual.

A total of 18 Scolytids were reared from the baits. For pine alone, the tree age in which infestation was greatest was between 6-10years (Fig 22). The early age of 0-5 years and older ages of 11-15 years seems to be least preferred by the Scolytids which are known to be major forestry pests. However for Mahogany, the early and mid-ages i.e. 0-10 years were most preferred by Scolytids as infestation was highest during those ages, it was evident as the tree matured that the infestation rate by scolytids was much reduced. These findings are preliminary,

it is suggested that a large scale experiment be conducted to further investigate on these findings.

Forest Health and Pest and Disease Assessments

Forest Health surveys are conducted in plantations between 0-5 years whilst pest and disease assessments are conducted in nurseries. Forest Health surveys are mainly targeted at assessing plant survival whilst for pest and disease assessments, seedlings in nurseries are inspected for any pests and diseases and control measures. Pest and disease assessments were conducted within SRD nurseries, private run nurseries, Lololo pine nursery, and teak nursery at Mataso, Ra.

Fig 23: Diseased sandalwood seedlings being test for Phytophthora - Dr. Stan Bellgard (Pathologist, Landcare Research, NZ) demonstrates using the easy-to-use test kit to Forest Health staff at the SRD Nursery

Pest and Disease Assessments in Selected Nurseries and Forest Plantations

This study was done in collaboration with scientists from the Landcare Research, New Zealand and was focused at documenting for the first time major pest and diseases in trees.

Fig 24: Some preliminary findings of insect and pest affecting leaves of some species

Major pests recorded with sandalwood seedlings in nurseries were within the Order *Hemiptera* (a group of sap sucking insects). Infestation was seen to target mainly the seedling stage (Figure 21). All pests recorded here are not only restricted to sandalwood nor to Fiji alone as they are quite

widespread and have a varied selection of hosts. Major pests include: *Selenaspidus articulatus [Hemiptera: Disapididae]*, *Dysmicoccus neobrevipes [Hemiptera: Pseudococcidae]*, *Icerya seychellarum [Hemiptera: Monophlebidae]*, *Hemiberlesia palmae [Hemiptera: Diaspididae]*, *Ceroplastes rubens [Hemiptera: Coccidae]* and *Aleurodicus dispersus [Hemiptera: Aleyrodidae]*. The *Icerya seychellarum* was noted to be a major problem within most nurseries.

Fig 25: Major pests recorded with sandalwood seedlings, *Lcerya seychellarum* (L), and *Ceroplastes rubens* (R)

Baseline surveys on the Asian Subterranean Termites

Baseline surveys carried out in Lautoka with the BAF Kadivuka team with details as follows:

a) Coptotermes gestroi (AST) was found to be infesting dead, injured, burnt or suppressed pine trees within the Qalitu area, Lautoka and also on standing mango trees within the vicinity of this area. It was evident that the infested pine tree had been previously burnt and had major injuries and cracks to the bark in which the AST was able to invade and infest (see attached photos of the site of the infested pine tree at Qalitu and the infestation by AST on the pine tree). We also found AST infesting on dead/ fallen pine trees.

b) Specifically for pine trees, it was noted that the infestation by AST within the surveyed sites is not as evident yet in healthy standing trees. However more surveys in monitoring the extent of their infestation especially in standing trees is recommended for the near future.

3.4.5 Sandalwood Development Program

The project undertook several major activities such as sandalwood field establishment, seed germination and propagation, awareness and capacity-building programs, and monitoring and revisiting project sites. A new program for 2015 was the inclusion of women's groups in sandalwood development to promote gender equality at community level. A total of $100,000 was allocated for SDP for 2015 the fund utilization rate as at 31st December, 2015 was 98.4%.

A total of 27.86 kg sandalwood seed was purchased from Naiviqiri (Bua), Nagadoa (Bua), Tagaqe (Nadroga), Culanuku (Serua), Naboutini (Serua), and Tiliva (Kadavu), at $100.00/kg, and a total of

$2,786.00 was paid to seed suppliers. This was germinated to produce the annual target of 17,500 potted seedlings.

A total of 7,416 seedlings were planted-out in 16 communities with a total area of 18.54 hectares, and surpassing the 2015 target of 12 hectares or increase by 35 percent area planted by Sandalwood in 2015.

Fig 26: Ground preparation for Sandalwood field-planting with community of Arovudi Village, Ovalau.

This capacity building program was designed to strengthen and improve knowledge and skills on sandalwood resource development at community level. The annual target of 8 sandalwood capacity building and empowerment programs in various communities for 2015 was fully achieved.

Fig 27: Sandalwood awareness and capacity building training program conducted for communites.

This year 2015 marked the involvement of women in establishment and management of sandalwood projects. Three (3) sites were targeted this year, however only 2 sites were achieved, namely Namaqumaqua Village and Soqosoqo Vaka Marama Nadroga/ Navosa.

Fig 28: Involvement of Women with Sandalwood resource development Programs.

Since the inception of the project in 2011, a total of 22 community-based nurseries have been established around the country. The revisiting and monitoring activity for these nurseries are normally done twice a year (bi-annually).

3.4.6 Undertake research development on forest commodities

The purpose of this project was to research into the potential of wood and non-wood species for import substitution, value adding and export purposes. It is estimated that 60% of rural communities depend on these non-wood species and presently have not determined its full potential for marketing and value adding. Research into identifying the potential of these wood and non-wood will further boost value adding of this lesser known species to increase value and potential uses by the local forest sector industries.

The Timber Utilization Division (TUD) has been provided with $150,000 to implement the fourth year of the "Research and Development of Wood and Non-Wood Species" project.

For the past three (3) years, this government funded project has allowed TUD to research on four (4) Lesser Known Species (LKS) namely *Xylopia pacifica* (Dulewa), *Dillenia biflora* (Kuluva), *Parinari insularum* (Sa) and *Trichospermum richiee* (Mako). Their properties and potential uses were obtained from this research.

This year, the 2 Lesser Known Wood Species that was researched on are *Gymnospermum vitiense* and *Pagiantha thurstonii*, locally known as Velau and Tadalo respectively. Research also continued on Bamboo (non-wood sp) with regards to its preservative treatment. With very little information available on the above said species, this research aims to provide more information, enabling its properties and potential uses to be known.

Fig 29: Measuring of DBH, Marking of Tree, Labeling of Density Discs, Wrapping of Density Discs

Fig 30: Ripping of Tadalo logs and marking of Velau Discs from pith and finer cutting of density samples

Fig 31: Bamboo Research - non wood product

3.4.7 Utilization of Wood Project

The purpose of this project is to create product development manuals and methodologies for the enhancement of waste wood (Crown, roots, branches and stump) into finished wood products to maximize timber utilization with the hopes of creating an industry by training interested individuals and forestry landowners. The project proposes to utilize the unutilized portion of trees and timber normally left behind after harvesting and processing.

Highlights for 2015 were the awareness and consultation conducted to various stakeholders and the establishment of three furniture and handicraft cottage industries together with the purchase of identified specialized machines to process these wastes.

Fig 32: Specialized machines for wood waste utilization

3.4.8 Pine Woodlot Logging Package

Procurement of specialized forestry machines

All these machines were bought from China to be used in the operations in Gau and Cicia. This includes the following machines:

- 2 Set of tractors with trailer and blade
- 2 Set of timber treatment plant with all accessories
- All logging equipment including 3 chainsaw and all accessories

Installation and Training

- All the machines arrived in 2015 and the 2 tractors were installed in Nasinu by the team from our Garage in Colo-i-Suva.
- All sets of machines were transported to both islands except for the Cicia Treatment Plant which was recommended to be set up in Nasinu due to the low Pine resource currently in the Cicia Pine Scheme.
- The treatment plant for Gau was installed in 2015 and the machines were tested and were satisfactory.
- OHS and LTA inspections were conducted and installation of Government Plate number was done as approved by Ministry of Finance.

Shed and Bund Walls

- The shed and bund walls were also constructed in 2015, that is a 20 metre long by 9 meter wide shed which also include the bund walls for the treatment plant.
- Also completed an 8 meter x 8 meter Generator shed and fuel shed and also 2 stands for 2 x 5000 litres water tank to store water for the timber treatment operation.

Table 18: Assistance provided to Narocake Pine Scheme and Cicia Pine Scheme

Equipment	Gau	Remarks
Chainsaw	3	Husqvarna
PPE	3 Set	Chaps, Helmet, gloves, reflective vests, safety boots, etc.
Portable Mill	1	Lucas Model 830
Machine operators	6	Chainsaw, & Portable mill operators
Supervisors	1	Fiji Pine Trust Staff.
Timber Treatment Plants	1	Installed and satisfactorily operating in the scheme
Tractor with Trailer	1	In the scheme assisting in the transportation of logs
Power Generator	1	3 Phase 25 KVA.
Wood working Machines	4	1xDresser; 1 x band saw; 1 x planner; 1 x table saw

Equipment	Cicia	Remarks
Chainsaw	3	Husqarvana
PPE	3 Set	Chaps, Helmet, gloves, reflective vests, safety boots, etc.
Portable Mill	1	Lucas Model 830
Machine operators	6	Chainsaw, & Portable mill operators
Supervisors	1	Fiji Pine Trust Staff.
Tractor with Trailer	1	In the scheme assisting in the transportation of logs

Logging and Sawmill Operations

- In 2015, full operations of logging, sawmilling and timber treatment operations at the Narocake Pine Scheme.
- At Cicia Pine Scheme, a small operation was conducted and operations will be continued in 2016 once the funding is made available since the procurement have utilized approximately 50% of the budget allocated in 2015.

Fig 33: Timber Treatment Plant installation at Lovu Village, Narocake, Gau (Narocake Pine Scheme)

3.4.9 Support Income generating Forestry Projects through Subsidy and other financing options

Administration of Seed Capital Revolving Fund (SCARF)

The department support communities who wish to harvest their forest and trade logs or even covert into timber to trade to local timber retailers. The SCARF programme enables Forest communities to participate in the Forest industries and gain maximum returns from harvesting and processing their forest resources. For 2015, the department received five (5) applications and all were vetted, however three (3) were approved while two (2) were still pending as at the end of 2015.

Forest Subsidy Programme

The department was allocated $50,000 in 2015 to support the Small Medium Enterprises (SME's) such as the wood carvers to boost their production and contribute more towards the economic growth. Also, the purpose of this scheme is to drive wood carving business in Fiji from an informal platform to a formal business platform that will enable it to move even further in contributing to Fiji's socio-economic development. For 2015 a total of seven applications were received following the advertisement in the newspaper and all the seven applicants were processed and assisted. The seven local wood carvers were provided with wood carving hand tools and wood carving machinery to boost production and meet the local market demands.

Fig 34: The sevens (7) recipients of the forest subsidy with the Minister for Fisheries and Forests Osea Naiqamu

Pine Resin Extraction in Lakeba Lau

The forest subsidy program is primarily aimed to enhance and empower communities to actively participate in forestry economic activities such as the establishment of pine resin extraction. Initially these harvested pine logs will be dried prior to processing. The revenue from pine resin sales provided alternative source livelihood as a form of employment and essentially improvements in living standards. In 2015, it was recommended that a Private Public Partnership (PPP) arrangement was made for the pine resin project for Lakeba for the total amount of $500,000. The Parties to this project included Callison Pacific, Fiji Pine Trust and the government through the Forestry Department. The rendered assistance was as follows:

- Callison – all relevant equipment and materials as well a technical advice;
- Fiji Pine Trust – training & awareness; and
- Forestry Department – consultation, freight for the supply of equipment and raw materials as well as collection of production.

The department also conducted periodic awareness and training to the communities of Lakeba Island as and when necessary.

The nature of the commodity is such that it was labor intensive hence the impact that trickled down to the grass-root level was very substantial, therefore improving livelihood. Given that pine resin was one of the flourishing forestry commodities (currently have been in operation in Fiji for one and half years), long term sustainability and continuity is guaranteed and therefore financial returns is relatively high. Total land area for Lakeba is:

- 1,700 acres or 1.8 million trees with a production volume of 6 kg per tree;
- Buying price is $1,110 per ton; and
- Total income generated $865,000 annually from $72,083.33 per month. The return to investment will include initial investment of $390,000 and projected returns of $865,000 with the return on investment.

In 2015, government budgeted $500,000 and significant component was for carting pine resin from Lakeba. The department will be working in collaboration with Callison Pacific to harvest the expected quantity from the island. Other components included the initial consultation made with the Vanua of Lakeba for their approval, continuous monitoring and evaluation, and upgrading of road network.

The major achievements for this programme was the production of 532,391 cubic meters of Pine saw logs, total of 40.466 cubic meters of treated pine posts and Pine resin extraction totaled to the amount of 68,755 ton valuing at $75,641.50.

Fig 35: Pine trees on Lakeba Island being tapped for resin extraction.

3.5 Extension and Advisory Service

Sub Output Area

Responsible for the promotion of sustainable forest management through instituting a-forestation and reforestation to stabilize degraded and logged over sites and extension of forest cover.

3.5.1 Community Forest Development

The department achieved the establishment of eight (8) agroforestry models at specific locations on the main islands and maritime islands (Nalase, Caboni, Vesilou, Rabi, Lodoni, Navulokani, Logani and Nanukuloa).

The targeted 150 hectares of afforestation and reforestation program under the Reforestation of Degraded Forest project where 164 hectares was achieved during 2015. The achievement is attributed to the communities and public's involvement with reforestation activities. The achievement is also an increase of 8.5 percent from the annual target of 150 hectares set for 2015.

For the coastal rehabilitation, the department planted twelve (12) hectares during the year. This was the result of collaborative effort with Government agencies, corporate organizations, NGO's, communities, villages, schools and tertiary institutions for their environmental program.

Mangrove and inland nurseries were also established at four (4) sites at Navunivi Village, Nanukuloa Primary School, Nasau Village and Nasaucoko Village. The purpose of this program is to empower and involve communities and schools to raise resilient plant species to be used for the coastal rehabilitation and replanting of forests programs.

Fig 34: Setup of nurseries for raising tree seedlings and reforestation by communities

3.5.2 ITTO Project - Community Based Restoration & Sustainable Management of Vulnerable Forests of the Rewa Delta, Viti Levu

The following activities were implemented as from October 2015 when the project commenced:

- The project had its first Project Steering Committee (PSC) meeting on 8th October 2015, and was attended by Dr. Ma Hwan-ok, Project Manager, International Tropical Timber Organization (ITTO) in Japan as well as the local members of the Project Steering Committee compromising of various ministries and organizations. One of the main outcomes of the meeting was the finalization of the Project Steering Committee Members and formation of a Technical Committee who shall direct the collaborating partners on the exact content of this project by providing their critics and endorsement.

- The project has recruited a Project Accounts/Clerical Officer with effect from October 2015.

- The project had organized an in-house workshop to introduce the ITTO Project to the development partners, Rewa Delta communities and respective divisions of the Department of Fisheries & Forests and also to review the work plan for the year and identify areas where divisions will be involved in delivering or implementing the project activities. The project will be working closely with the following divisions:
    - Central Eastern Forestry – plays the lead role in implementing this project;
    - Forestry Training Centre – will be facilitating the trainings and awareness in communities under component 1 of the project;
    - Silviculture Research – assist in implementing activities under component 2 and 3 of the project that is on community training on seed tree collection;
    - Management Services Division – assist in implementing activities under component 1 of the project that is on area mapping; and
    - Extension Division - assist in implementing activities under component 2 that is community training on nursery techniques and establishment of nursery.

- The project organized an introductory visit beginning October to the six (6) villages of the project site to advice villages on the commencement of the project and to discuss future work programmes.

- The project is in progress of developing a Contractual Agreement for the three (3) Collaborating Partners, University of the South Pacific, Conservation International and Secretariat of the Pacific Community.

Fig 35: Consultation with the Rewa Delta communites on the ITTO Project

3.6 Forest Parks, Recreation and Reserves

Sub Output Area

Responsible for the establishment, management, maintenance and enhancing of the use of forest parks and reserves, forest education and resource conservation promotion, restoration ecology and watershed and amenities planting.

3.6.1 Colo-i-Suva Forest Park

Colo-I-Suva Forest Park is a model for forest tourism that enhance forestry sector to contribute in the development of forest park on the other hand generating income from locals and overseas visitors that experienced the naturalist of the forest park environment.

Basically known of its natural beauty with recreational values as well as its proximity to the urban areas, the forestry sector have ventured to promote understanding and awareness of its forest values socially, economically and environmentally.

Finally the feedback from park users is a vital tool that we need to evaluate our performance to meet certain level and criteria of our work.

Visitors to the park recorded a total number of 25,484 visitors generating total revenue of $56,698 at the end of the year 2015 and an increase of 2.3 percent from the total visitors recorded for 2014.

The analysis indicates that the forest park is not only a main attraction for overseas visitors but also for locals during holiday season and field trips for students of primary, secondary and tertiary level for their environmental educational tours.

Furthermore, it is highlighted that the locals are the main users of the park compared to the overseas visitors. The main attractions offered at the park include bird watching, waterfalls and pools, hiking through its natural trails and look out points for scenic views.

The Colo-I-Suva Forest Reserve was set up in 1964 when a Mahogany stand was planted in the area. The site became formally established as the Colo-i-Suva Forest Park in 1970 for its natural beauty, proximity, and recreational values as well as to promote understanding and awareness of forest values. Since the establishment the Department has been allocating around $100,000 annually for the operational activities of the Park and as from 2014 the Upgrading of the Colo-i-Suva Forest Park project funding have assisted with the overall general maintenance of the park and also to upgrade the existing park facilities to meet the park visitor's expectations.

The Upgrading of Forest Park project priorities involved the upgrading of the services that will link and attract customers to the park. The improvement of the services included the upgrading of road to the park, installation of treated water and installing of radio system for communication from the Park Attendants to the office during emergencies. The installation of water meter and radio communication system was an outcome of request made by the customers to have a tap water that is suitable for drinking and radio communication system for emergency, security and safety at the park. The forest park road was last upgraded in 2011, with the increase on the vehicle numbers entering the park the park road has deteriorated over the years and requires a major upgrade.

The Hogan's Highway contractor has completed the work on road maintenance at CIS Park following the graveling and formation of road surface from main gate to the lower parking area.

Fig 36: Upgrading of Colo-i-Suva Forest Park Road.

Colo-i-Suva Forest Park Annual Visitors with revenue collected analysis for the past 3 years are detailed in the table below.

Table 19: Colo-i-Suva Forest annual visitor arrivals and revenue collected from 2013 to 2015.

Years	Sum of Total Visitors	Sum of Total Revenue
2013	15,736	$32,830.00
2014	24,897	$61,465.50
2015	25,960	$56,698.00
Grand Total	**66,593**	**$150,993.50**

3.6.2 Reserves

The Department manages a total number of seventeen (17) Forest Reserves and seven (7) Nature Reserves covering a total forest area of 34,890.43 hectares. Other parks and reserves managed by other Environmental organizations cover a forest area of 17,004.5 hectares. The maintenance of Forest Reserves for 2015 was conducted on four Forest Reserves which included the reserves of Colo-i-Suva, Savura, Lololo and Saru Creek. Activities mainly included boundary maintenance and demarcation. Annual lease payments for all reserves totaled to $66,426.14.

Table 20: Listings of forest, nature and other parks and reserves

Forest Reserves:

No.	Location/Name	Province	Established Proclaimed	Area (Ha)
1	Taveuni	Cakaudrove	1914	11,290.7
2	Buretolu	Ba	1926	1,197.9
3	Nadarivatu – Nadala	Ba	1954	7,400.7
4	Maranisaqa & Wainiveitoa	Naitasiri	1955	77.3
5	Qoya	Rewa	1955	67.2
6	Tavua	Ba	1958	2 rods
7	Ravilevu	Cakaudrove	1959	4,018.7
8	Vago	Naitasiri	1959	24.7
9	Korotari	Cakaudrove	1961	1,046.9
10	Yarawa	Serua	1962	161.9
11	Savura	Naitasiri	1963	447.6
12	Colo-i-Suva	Naitasiri	1963	369.5
13	Suva & Namuka Harbour, including Draunibota, Labiko & Vuo Island	Rewa	1963	19
14	Lololo	Lautoka	1968	8.3
15	Naboro	Rewa	1969	19
16	Saru Creek	Lautoka	1973	3.2
17	Wabu	Ba	1992	2,907
	Total			**29,059.6**

Nature Reserves:

No.	Location/Name:	Province:	Established Proclaimed:	Area (Ha):
1	Nadarivatu	Ba	1956	93.08
2	Tomanivi	Ba	1958	1,323.33
3	Naqaranibuluti	Ba	1958	279.23
4	Ravilevu	Cakaudrove	1959	4,018.54
5	Draubota & Labiko	Rewa	1959	2.22
6	Vuo Island	Rewa	1960	1.2
7	Vunimoli	Cakaudrove	1968	20.23
	Total			**5,737.83**

Other Parks and Reserves:

No.	Location / Name	Province	Established Proclaimed	Area (Ha)
1	J. H. Garrick Memorial Park	Namosi	1986	427
2	Namenalala Island Nature Reserve	Bua	1984	43
3	Tavakubu	Ba	1970	1
4	Saweni Beach	Ba	1970	0.5
5	Lomolomo	Ba	1970	0.5
6	Nukulau Island	Rewa	1970	8
7	Yadua Taba Island	Bua	1981	50
8	Waisali Forest Amenity Reserve	Cakaudrove	2005	120
9	Vaturu Forest Amenity	Ba		
10	Sigatoka Sand Dunes	Nadroga		240
11	Wasavulu	Vanua Levu	1981	1
12	Batiniwai Protected Forest	Serua	1956	15,749.6
13	Bouma Forest Park	Taveuni	1991	80.9
14	Waikatakata Archaeological Park	Nadroga	1991	70
15	Tavuni Hill Fort	Nadroga	1992	3
16	Mount Evans Forest Park	Ba	1993	210
17	Lavena Coastal Walk & Nature Attractions	Taveuni	1994	
	Total			**17,004.5**

4.0. AUDITED FINANCIAL REPORT

OFFICE OF THE AUDITOR GENERAL
Excellence in Public Sector Auditing

6-8TH Floor, Ratu Sukuna House
2-10 McArthur St
P.O.Box 2214, Government Buildings
Suva, Fiji

Telephone: (679) 330 0032
Fax: (679) 330 3812
Email:info@auditorgeneral.gov.fj
Website:http://www.oag.gov.fj

File: 496

21 June 2016

The Honorable Minister for Fisheries and Forests
Ministry of Fisheries and Forests
P.O. Box 2218
Government Building
SUVA

Dear Sir

AUDITED FINANCIAL STATEMENTS OF THE MINISTRY OF FISHERIES AND FORESTS FOR THE YEAR ENDED 31 DECEMBER 2015

Audited financial statements for the Ministry of Fisheries and Forests for the year ended 31 December 2015 together with my audit report on them are enclosed.

Particulars of errors and omissions arising from the audit have been forwarded to the management of the Ministry for their necessary actions.

Yours sincerely

Atunaisa Nadakuitavuki
for AUDITOR-GENERAL

cc : Samuela Lagataki, The Permanent Secretary for Fisheries and Forests

Encl.

MINISTRY OF FISHERIES AND FORESTS

FINANCIAL STATEMENTS

FOR THE YEAR ENDED 31 DECEMBER 2015

MINISTRY OF FISHERIES AND FORESTS
FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2015

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MINISTRY OF FISHERIES AND FORESTS
FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2015

INDEPENDENT AUDIT REPORT

Scope

I have audited the special purpose financial statements which have been prepared under the cash basis of accounting and Notes 1 to 5 thereon of the Ministry of Fisheries and Forests for the year ended 31 December 2015. The financial statements comprise the following:

(i) Statement of Receipts and Expenditure;
(ii) Appropriation Statement;
(iii) TMA – Manufacturing Account;
(iv) TMA – Trading Account;
(v) TMA – Profit and Loss Statement;
(vi) TMA – Balance Sheet;
(vii) Statement of Losses; and
(viii) Trust Account Statement of Receipts and Payments

The management of the Ministry of Fisheries and Forests is responsible for the preparation and presentation of the special purpose financial statements and the information contained therein.

My responsibility is to express an opinion on these special purpose financial statements based on my audit.

My audit was conducted in accordance with the International Standards on Auditing to provide reasonable assurance as to whether the special purpose financial statements are free of material misstatements. My audit procedures included examination, on a test basis, of evidence supporting the amounts and other disclosures in the special purpose financial statements and evaluation of accounting policies. These procedures have been undertaken to form an opinion as to whether, in all material respects, the special purpose financial statements are fairly stated and in accordance with government policies in Note 2 and the Audit Act and the Financial Management Act 2004, so as to present a view which is consistent with my understanding of the financial performance of the Ministry of Fisheries and Forests for the year ended 31 December 2015.

The audit opinion expressed in this report has been formed on the above basis.

Qualifications

Trading and Manufacturing Account

1. Included in the Trading and Manufacturing Account (TMA) Balance Sheet is Deposits and Deductions of $26,033 and Accounts Receivable of $5,745. I was not able to verify the amounts as the Ministry did not provide appropriate audit evidences to support the balances. As a result, I was not able to ascertain the accuracy and completeness of the Deposits and

Deductions and Accounts Receivable reflected in the Trading and Manufacturing Accounts as at 31 December 2015.

2. There is an un-reconciled difference amounting to $20,320 between the FMIS general ledger cash balance and the cash book balance. There was no bank reconciliation performed by the Ministry. Accordingly, I was unable to ascertain the accuracy and completeness of the TMA Cash at bank balance of $62,115 as shown in the TMA Balance Sheet as at 31 December 2015.

3. Included in the TMA Trading Account is Closing Stock of Finished Goods of $2,599 and Closing Raw Materials of $7,322. I am unable to ascertain the accuracy and completeness of Closing Stock of Finished Goods as the Ministry did not carry out an independent stock take for the year ended 31 December 2015.

Trust Account Statement of Receipts and Payments

4. The closing balance the closing balance of the Trust Account Statement of Receipts and Payment of $193,634 did not correspond to the Cash at Bank FMIS general ledger balance of $79,641. Accordingly, I am unable to ascertain the accuracy and completeness of the Main Trust Fund balance as at 31 December 2015.

Audit Opinion

In my opinion:

(a) except for the matters referred to in the qualification paragraphs, the financial statements present fairly, in accordance with the accounting policies stated in Note 2, the financial performance of the Ministry of Fisheries and Forests for the year ended 31 December 2015; and

(b) the financial statements give the information required by the Financial Management Act 2004 in the manner so required.

I have obtained all the information and explanations which, to the best of my knowledge and belief, were necessary for the purpose of our audit.

Atunaisa Nadakuitavuki
for AUDITOR GENERAL

Suva, Fiji

21 June 2016

MINISTRY OF FISHERIES AND FORESTS

STATEMENT OF RECEIPTS AND EXPENDITURE
FOR THE YEAR ENDED 31 DECEMBER 2015

	Notes	2015 $	2014 $ (Restated)
RECEIPTS			
Native Timber Measurement		962,541	1,002,754
Vessel Registration		5,486	71,263
Management Fees		10	102,396
License Fishing		26,317	280,418
Sale of Fish and Ice		412,026	294,088
Miscellaneous Revenue		393,292	413,672
Offshore Fisheries Management Fees		1,743,925	-
Total Receipts	3(a)	3,543,597	2,164,591
EXPENDITURE			
Established Staff	3(b)	7,847,972	7,179,068
Government Wage Earners	3(c)	1,951,168	1,825,734
Travel & Communication	3(d)	513,786	543,104
Maintenance & Operations	3(e)	2,389,749	2,268,432
Purchase of Goods & Services	3(f)	885,388	821,026
Operating Grants & Transfers	3g)	772,035	370,283
Special Expenditure	3(h)	407,653	152,241
Total Operating Expenditure		14,767,751	13,159,888
Capital Construction	3(i)	5,770,180	4,026,408
Capital Purchases		649,013	791,075
Total Capital Expenditure		6,419,193	4,817,483
Value Added Tax		1,705,942	1,295,461
TOTAL EXPENDITURE		22,892,886	19,272,832

MINISTRY OF FISHERIES AND FORESTS

MANAGEMENT CERTIFICATE
FOR THE YEAR ENDED 31 DECEMBER 2015

We certify that these financial statements:

(a) fairly reflect the financial operations and performance of the Ministry of Fisheries and Forests and its financial position for the year ended 31 December 2015; and

(b) have been prepared in accordance with the requirements of the Financial Management Act 2004 and the Finance Instructions 2010.

Samuela Lagataki
Permanent Secretary

Date: 30/05/16

Maciu Waqa
Principal Accounts Officer

Date: 30/5/16

MINISTRY OF FISHERIES AND FORESTS

APPROPRIATION STATEMENT
FOR THE YEAR ENDED 31 DECEMBER 2015

SEG	Item	Budget Estimate	Appropriation Changes (Note 4)	Revised Estimate	Actual Expenditure	Carry - Over	Lapsed Appropriation
		$	$	$	$	$	$
1	Established Staff	7,964,365	(112,380)	7,851,985	7,847,972	-	4,013
2	Government Wage Earners	1,598,116	358,484	1,956,600	1,951,168	-	5,432
3	Travel & Communication	504,578	11,387	515,965	513,786	-	2,179
4	Maintenance & Operations	2,507,240	(118,254)	2,388,986	2,389,749	-	(763)
5	Purchase of Goods & Services	904,200	(18,160)	886,040	885,388	-	652
6	Operating Grants & Transfers	979,400	(207,364)	772,036	772,035	-	1
7	Special Expenditure	420,435	(13,714)	406,721	407,653	-	(932)
	Total Operating Costs	14,878,334	(100,001)	14,778,333	14,767,751	-	10,582
	Capital Expenditure						
8	Construction	6,850,000	(62,056)	6,787,944	5,770,180	-	1,017,764
9	Purchases	500,000	149,013	649,013	649,013	-	-
	Total Capital Expenditure	7,350,000	86,957	7,436,957	6,419,193		1,017,764
13	Value Added Tax	1,752,900	13,044	1,765,944	1,705,942	-	60,002
	TOTAL EXPENDITURE	23,981,234	-	23,981,234	22,892,886		1,088,348

MINISTRY OF FISHERIES AND FORESTS

TMA - MANUFACTURING ACCOUNT
FOR THE YEAR ENDED 31 DECEMBER 2015

		2015 $	2014 $
Opening Raw Material		10,728	19,069
Add: Purchases		-	-
		10,728	19,069
Less: Closing Raw Material		7,322	10,728
Raw Material Used		3,406	8,341
Add: Direct Costs		-	-
Add: Direct labour	(k)	112,316	100,104
Cost of Manufactured Goods transferred to Trading Account		115,722	108,445

MINISTRY OF FISHERIES AND FORESTS

TMA - TRADING ACCOUNT

FOR THE YEAR ENDED 31 DECEMBER 2015

	Note	2015 $	2014 $
Sales		135,703	152,495
Opening Stock of Finished Goods		7,002	10,125
Add: Cost of Manufactured Goods		115,722	108,445
		122,724	118,570
Less: Closing Stock of Finished Goods		2,599	7,002
Cost of Finished Goods Sold		120,125	111,568
Gross Profit		15,578	40,927

MINISTRY OF FISHERIES AND FORESTS

TMA – PROFIT AND LOSS STATEMENT
FOR THE YEAR ENDED 31 DECEMBER 2015

		2015 $	2014 $
INCOME			
Gross Profit Transferred from Trading Account		15,578	40,927
Total Income		15,578	40,927
EXPENSE			
Maintenance and Operation		59,026	107,215
Special Fees and Charges		-	25
Total Expenses	3(j)	59,026	107,240
Net (Loss)		(43,448)	(66,313)

MINISTRY OF FISHERIES AND FORESTS

TMA – BALANCE SHEET
AS AT 31 DECEMBER 2014

	2015 $	2014 $
Current Assets		
Cash at Bank	62,115	65,947
Raw Materials	7,322	10,728
Accounts Receivable	5,745	5,745
Finished Goods	2,599	7,002
Total Current Assets	77,781	89,422
Current Liability		
Deposits and Deduction	26,033	5,197
Total Current Liability	26,033	5,197
NET ASSETS	51,748	84,225
Equity		
TMA Surplus Capital Retained to CFA	213,037	202,067
TMA Accumulated Loss	(117,841)	(51,529)
Net (Loss)	(43,448)	(66,313)
TOTAL EQUITY	51,748	84,225

MINISTRY OF FISHERIES AND FORESTS

STATEMENT OF LOSSES
FOR THE YEAR ENDED 31 DECEMBER 2015

Loss of Money

There was no loss of money recorded in 2015.

Loss of Revenue

There was no loss of revenue recorded in 2015.

Loss of Fixed Assets

In accordance with the Procurement Regulations 2010 (Clause 52), the Permanent Secretary for Finance approved the disposal and write-off of the following items upon submission of the recommendations of the Board of Survey Report.

Location	Description	Note	2015 $	2014 $
Corporate Services	Computer Equipment		181,872	91,488
Forests	Motor Vehicle		-	41,310
	Office Equipment		48,515	-
	Computer Equipment		19,300	43,699
	Sawmill Equipment		18,494	-
Fisheries	Motor Vehicle		76,935	33,750
	Office Equipment		27,989	-
	Computer Equipment		-	56,915
	Land and Buildings		8,100	-
Total			381,205	267,162

MINISTRY OF FISHERIES AND FORESTS

MINISTRY OF FISHERIES - 1/3 SUBSIDY SCHEME

TRUST ACCOUNT STATEMENT OF RECEIPTS AND PAYMENTS

FOR THE YEAR ENDED 31 DECEMBER 2015

	2015 $	2014 $
RECEIPTS		
1/3 Subsidy Contribution	63,527	105,944
Total Receipts	63,527	105,944
PAYMENTS		
Retention Money	5,618	25,858
Total Payments	5,618	25,858
Surplus/(Deficit)	57,909	80,086
Opening Balance as at 1 January	135,725	55,639
Closing Balance as at 31 December	193,634	135,725

MINISTRY OF FISHERIES AND FORESTS

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2015

NOTE 1: REPORTING ENTITY

The Ministry of Fisheries and Forests is responsible for the formulation of policies that promote best practices (equating conservation and utilisation) that will ensure a prosperous and enhanced Fisheries and Forests sectors.

The Ministry will drive this through coordination, consultation and in partnership with resources owners/custodians, communities, private sector, government agencies, non-governmental organisations, regional and international agencies.

In doing so, the Ministry will ensure an enabling environment conducive to private sector investment and growth, community participation, creating job opportunities which would therefore increase Fisheries and Forests Sector contribution to the National GDP.

The Ministry is mindful of the emerging issues such as carbon trading, forest and tuna certifications and the potential growth within the two sectors, is committed to ensuring that the organisation structure is appropriate and there is on-going capacity building to accommodate the changes and efficiently support the expected growth in the two resource based sector.

NOTE 2: STATEMENT OF ACCOUNTING POLICIES

(a) Basis of Accounting/ Presentation

In accordance with Government accounting policies, the financial statements of the Ministry of Fisheries and Forests is prepared on cash basis of accounting. All payments related to purchases of fixed assets have been expensed.

The financial statements are presented in accordance with the Financial Management Act and the requirements of Section 71(1) of the Finance Instructions 2010. The preparation and presentation of a Statement of Assets and Liabilities is not required under the current Government policies, except for that of the Trading and Manufacturing Accounts.

(b) Accounting for Value Added Tax (VAT)

Income and expenses are VAT exclusive. The Ministry on a monthly basis takes out VAT output on total money received for expenditure from Ministry of Finance. VAT input on the other hand is claimed on payments made to the suppliers and sub-contractors for expenses incurred.

The VAT payment as per the statement of receipts and expenditure relates to the VAT input claimed on payments made to the suppliers and sub-contractors for expenses incurred and VAT payments to FRCA. Actual amount paid to FRCA during the year represent the difference between VAT Output and VAT Input.

MINISTRY OF FISHERIES AND FORESTS

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2015

NOTE 2: STATEMENT OF ACCOUNTING POLICIES *(continued)*

(c) Comparative Figures

Where necessary, amounts relating to prior years have been reclassified to facilitate comparison and achieve consistency in disclosure with current year amounts.

(d) Revenue Recognition

Revenue is recognised when actual cash are received by the Ministry.

NOTE 3: SIGNIFICANT VARIATIONS

(a) Total revenue increased by $2,718,926 or 149% in 2015 compared to 2014 mainly due to the increase in Offshore Fisheries Revenue Allocations as approved by Cabinet and from sale of fish, ice, miscellaneous revenue and revenue from Native Timber and Forestry. The decrease in other revenues was attributed to the overall macroeconomic development, whereby there was a decrease in investment and development in Fisheries and Forestry sector in 2015.

(b) Established Staff costs increased by $668,904 or 9% in 2015 compared to 2014 due to the filling of vacant positions in established staffs.

(c) Government Wage Earners increased by $125,434 or 7% in 2015 compared to 2014 mainly due to the filling of vacant positions in government wage earners.

(d) Travel and Communication decreased by $29,318 or 5% in 2015 compared to 2014. This was due to the decrease in operations carried out on the Fisheries and Forestry sector in 2015.

(e) Maintenance & Operations costs increased by $121,317 or 5% in 2015 compared to 2014 mainly due to increase in activities carried out on the maintenance of equipment's and operation costs for both the Department of Fisheries and Forestry. There were increases in maintenance costs due to repairs of motor vehicles for both Departments and increase in power supply.

(f) Purchase of Goods and Services increased by 64,362 or 8% due increase in purchases in 2015 compared to 2014.

(g) Operating Grants and Transfers increased by $401,752 or 108% in 2015 compared to 2014. This was due to increase in activities for SEG 6.

(h) Special Expenditure increased by $255,112 or 168% in 2015 compared to 2014. This was due to increase of 2015 budget to cater for the special activity.

MINISTRY OF FISHERIES AND FORESTS
NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2014

NOTE 3: SIGNIFICANT VARIATIONS *(continued)*

(i) The Capital Construction costs increased by $1,743,772or 43% in 2015 compared to 2014. This was due to new projects undertaken such as Cicia and Moala Ice Plant Project, Purchase of Saw Mill Gantry Hoist, Western Central Pacific Corporation and the continuation of the Pine Woodlot activities at Cicia and Gau Ice Plant.

(j) The TMA Operating Expenses decreased by $48,214 or 45% due to decrease in activities carried out on TMA operations, reduction in production and less engagement of casuals due to breakdown of machines

NOTE 4: APPROPRIATION MOVEMENTS

Appropriate movements were made through virements as follows:

Expenditure Group	Net Movement $
SEG 1	(112,380)
SEC 2	358,484
SEG 3	11,387
SEG 4	(118,254)
SEG 5	(18,160)
SEG 6	(207,364)
SEG 7	(13,174)
SEG 8	(62,056)
SEG 9	149,013
SEG 13	13,044

NOTE 5: TRADING AND MANUFACTURING ACTIVITY

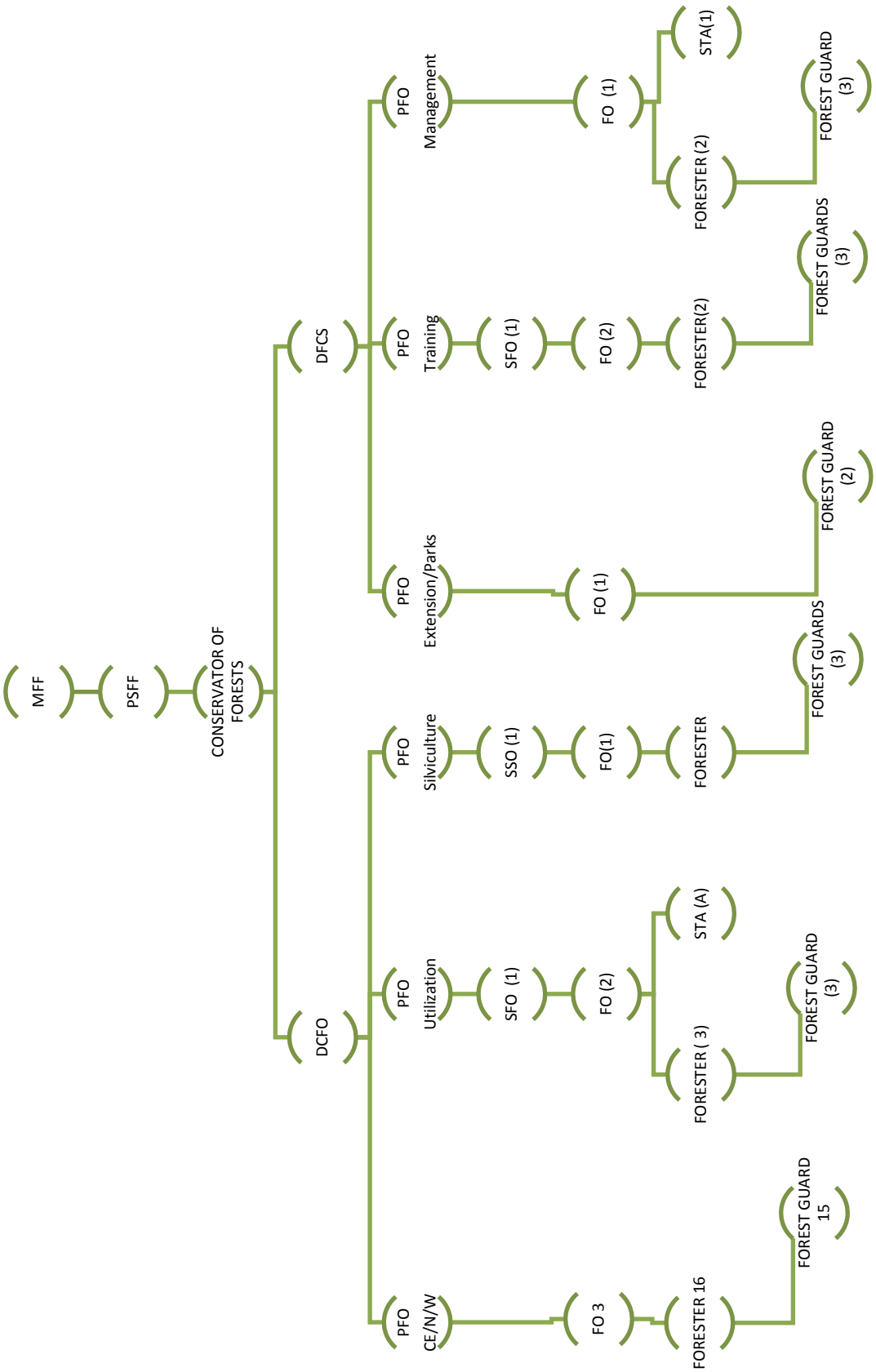
The Trading and Manufacturing Activity consists of Commercial Undertaking of processed timber and furniture's as reported above.

5.0. APPENDICES

APPENDIX 1: FORESTRY DEPARTMENT ANNUAL BUDGET & EXPENDITURE STATEMENT

FORESTRY DEPARTMENT										
SUMMARY FOR PROGRAM 2 AS AT 31ST DECEMBER, 2015										
SEG	**DESCRIPTION**	**APPROPRIATION**	**YTD APPTN**	**YTD COMMIT**	**YTD %**	**OUTSTANDING**	**ACTUAL**	**BALANCE**	**% RATE YTD COMMIT/ APPRTN**	**% RATE ACTUAL/ APPTN**
SEG 1	EST STAFF	2,707,376	2,707,376	2,703,589	100	0	2,703,589	3,787	100	100
SEG 2	UNEST STAFF	1,208,058	1,208,058	1,202,638	100	0	1,208,638	5,420	100	100
SEG 3	TRAVEL & COMMTN	189,778	189,778	187,797	99	0	187,797	1,981	99	99
SEG 4	MAINT & OPERTN	496,695	496,695	498,958	100	0	498958	-2,263	100	100
SEG 5	PURCHASE OF GOODS & SERVICES	700,346	700,346	695,850	99	0	695850	4,496	99	99
SEG 6	OPERATING GRANTS & TRANSFERS	762,036	666,414	762,036	100	0	762,036	0	100	100
SEG 7	SPECIAL EXPENDITURE	149,095	149,095	150,026	101	0	150,026	-931	101	101
TOTAL OPERATING		**6,213,384**	**6,117,762**	**6,200,894**	**100**	**0**	**6,200,894**	**12,490**	**100**	**100**
SEG 8	CAPITAL CONSTRUCTION	1,737,944	1,655,635	1,638,117	94	0	1,638,117	99,827	94	94
SEG 9	CAPITAL PURCHASE	649,013	649,013	649,013	100	0	649,013	0	100	100
TOTAL CAPITAL		2,386,957	2,304,648	2,287,130	96	0	2,287,130	99,827	96	96
SEG 13	VAT	589,644	589,644	523,971	89	0	523,971	63,673	89	89
TOTAL		**9,189,985**	**9,012,054**	**9,011,995**	**98**	**0**	**9,011,995**	**177,990**	**98**	**98**

APPENDIX 2: ORGANIZATIONAL STRUCTURE



APPENDIX 3: ROYALTY RATES & CLASSES

Class	Royalty Rate/m3	Fees/m3
1	$45.00	$5.00
2	$37.00	$5.00
3	$12.00	$5.00
4	$7.00	$5.00
5	$5.00	$5.00
6	$5.00	$5.00
7	$5.00	$5.00

APPENDIX 4: TIMBER SPECIES HARVESTED

Species Name	CE	W	N	Grand Total	% Composition	Accumulative Percentage
Kaudamu	605	204	13,885	14,694	21	21
Pine-P	1,980	5,807	3,639	11,426	16	37
Damanu	2,082	272	3,787	6,141	9	46
Kauvula	2,063	1,693	1,982	5,738	8	54
Dakua Makadre	2,106	567	2,879	5,553	8	61
Others	153	29	3,419	3,601	5	66
Kaunicina	29	4	2,859	2,892	4	70
Mahogany-P	3,432	161	185	3,777	5	76
Pine-G	-	2,066	-	2,066	3	79
Dakua Salusalu	355	15	1,851	2,220	3	82
Raintree	-	1,998	17	2,015	3	84
Vesi	2	413	1,651	2,066	3	87
Bauvudi	53	17	1,749	1,819	3	90
Waciwaci/Anita	-	-	1,653	1,653	2	92
Yasiyasi	256	50	1,208	1,514	2	94
Rosarosa	152	22	580	754	1	95

Species Name	CE	W	N	Grand Total	% Composition	Accumulative Percentage
Sausauira	10	4	666	679	1	96
Sacau	522	9	14	545	1	97
Nawanawa	-	355	7	362	1	98
Sarosaro	-	-	419	419	1	98
Rosawa	5	-	353	358	0	100
Mavota	310	40	1	351	0	100
Yaka	20	56	236	312	0	100
Laubu	41	1	65	107	0	100
Kauceuti	86	1	4	91	0	100
Vaivai-ni-veikau	1	81	62	144	0	100
Tivi	-	-	96	96	0	100
Amunu	42	12	15	69	0	100
Doi	-	-	46	46	0	100
Moivi	16	4	20	41	0	100
Buabua	-	-	15	15	0	100
Kuasi	4	1	8	13	0	100
Vuga	-	-	8	8	0	100
Sa	-	7	-	7	0	100
Koka	1	4	3	8	0	100
Dogo	0	-	5	6	0	100
Dilo	-	-	4	4	0	100
Dabi	1	-	1	1	0	100
Masiratu	-	-	1	1	0	100
Mako	-	-	5	5	0	100

APPENDIX 5: MINOR FOREST PRODUCE PRODUCTION

OVERALL SUMMARY FOR MINOR FOREST PRODUCE 2015				
MINOR FORESTS	Central/Eastern	Western	Northern	Total
Albizia (m3)	0	7	0	7
Buabua (lm)	0	0	1,544	1,544
Charcoal (ton)	37	0	0	37
Converted Timber (m3)	0	0	23	23
Dridriwi (m3)	0	0	1,981	1,981
Fuelwood (m3)	85	0	230	314
Mangrove Fuel (m3)	4	0	0	4
Misimisi (bundle)	585	0	0	585
Pine Firewood (m3)	0	1,967	0	1,967
Pine Post (ton)	6,087	723	0	6,810
Pine Pulp	0	466	0	466
Raintree Firewood (m3)	0	1176	0	1,176
Round Logs	248	153	0	401
Soga Leaves (lm)	95,549	0	0	95,549
Walai (m)	20	0	0	20

APPENDIX 6: TREATMENT PLANTS AND SAWMILL STATUS

Item No.	Reg. Plant No.	Operator	Contact Details	Status
		Licensed Treatment Plants		
1	887	Amra's Earthworks	Lakena	Licensed
2	892	Dayal Sawmill Ltd	Kings Rd Yalalevu, Ba Ph: 667 5605	Licensed
3	770	Designtech	40 Bouwalu St, Lautoka Ph: 666 1958	Licensed
4	886	Fiji Forest Industries	P.O. Box 69, Labasa Ph: 881 1088 Fax: 881 3088	Licensed
5	885	G. G. Post & Poles	Sawani	Licensed
6	883	Global Import and Export	-	Licensed
7	894	K. K. Komove Logging & Co. Ltd	45 Ravouvou St, Nadi Ph: 666 6944	Licensed
8	903	Lomolomo Sawmill	Lomolomo, Lautoka Ph: 628 4181/628 1041	Licensed
9	898	Long Investment Ltd	Naqelekula, Savusavu	Licensed
10	876	Lumber Processor Limited	Balaga Bay, Savusavu Ph: 885 0836 and1 Omkar Rd, Narere - Ph: 339 4049	Licensed
11	888	Nur Ahmed & Co. Ltd	P.O. Box 60, Navua Yarawa Queens Rd, Serua Ph: 368 3900 Fax: 368 3901	Licensed
12	906	Raviravi Sawmill	-	Licensed
13	907	Rup's Investment Ltd	-	Licensed
14	901	Southern Forest Products Ltd	Lot 1 Daniva Rd, Nasinu Ph: 339 4544 Fax: 339 2912	Licensed
15	907	Taiwan Timber	Dreketi	Licensed
16	877	Tropik Forest Joint Venture	Vakabuli Village Rd, Lautoka Ph: 666 1388	Licensed
17	893	Tropik Wood Industries	Vakabuli Village Rd, Lautoka Ph: 666 1388	Licensed
18	896	Valebasoga Tropikboards Ltd	Wakaya Subdivision, Labasa Ph: 881 1286	Licensed
19	904	Vitiana Timber Ltd	Nokonoko Pl, Nasinu Ph: 339 3477	Licensed
20	902	Vunimoli Sawmill	Qelewaqa, Labasa	Licensed
21	895	Waiqele Sawmill	Qelewaqa Labasa Ph: 881 1819	Licensed
22	905	Westwood Sawmill	Wairabetia, Lautoka	Licensed

Source: Timber Utilization Division, Forestry Department, Nasinu

Unlicensed Treatment Plants

Item No	Reg. Plant No.	Operator	Status
1	900	Lakeba Pine Scheme	Unlicensed
2	889	Touch Wood Investment Ltd	Renovation

Source: Timber Utilization Division, Forestry Department, Nasinu.

List of Static Sawmills

Item No	Static Sawmills	License No	Status
	NORTHERN DIVISION		
1	Fiji Forests Industries	32	Licensed
2	Long Investment	165	Licensed
3	Lumber Processor	141	Licensed
4	Prasad's Timber Suppliers	146	Licensed
5	Raviravi Sawmill	160	Licensed
6	Dalomo Sawmill	99	Licensed
7	Taiwan Timber Co. Fiji Ltd	156	Licensed
8	Valebasoga Tropik Boards	150	Licensed
9	Vunimoli Sawmill	80	Licensed
10	Waiqele Sawmill	40	Licensed
	Central/Eastern DIVISION		
11	Island Tropical Forest	208	Licensed
12	Southern Forests Products	134	Licensed
13	Sustainable Mahogany Industries	158	Licensed
14	Touchwood Investment	93	Unlicensed
15	Utilization Sawmill	72A	Licensed
16	Vitiana Sawmill	171	Licensed
17	Waivunu Sawmill (FHCL)	157	Unlicensed
18	Yarawa Sawmill	25	Licensed
	WESTERN DIVISION		

Item No	Static Sawmills	License No	Status
19	Arula Investment	66	Non-operational
20	Best Industries	129	Licensed
21	Dayal's Sawmill	136	Licensed
22	Designtech Industries	172	Licensed
23	Global Food Imports	181	Licensed
24	K. K. Komove Sawmill	145	Licensed
25	Lomolomo Sawmill	96	Licensed
26	Tropik Forest Joint Venture	166	Licensed
27	Tropic Woods Industries	81	Unlicensed
28	Westwood Sawmil	225	Licensed

Source: Timber Utilization Division, Forestry Department, Nasinu

List of Portable Sawmills

Item No.	Sawmills	License No.	Status
NORTHERN			
1	CIDA	180	Un-operational
2	Costless Construction	189A	Licensed
3	Costless Construction	189B	Licensed
4	Costless Construction	189C	Licensed
5	Costless Construction	189D	Licensed
6	EIS Island Organic	221	Licensed
7	Jaydil Sawmill	208	Licensed
8	Palmwood Industries	177	Un-operational
9	Pyare Industries	222	Licensed
10	Vanua Pallet	192	Licensed
CENTRAL/EASTERN			
11	Affordable Timbers	189	Unlicensed
12	Baba Forests	169A	Licensed
13	Baba Forests	169B	Unlicensed
14	Burenitu Enterprise	198	Unlicensed
15	Cyberlink Sawmill	196	Licensed
16	DAT Logging	202	Unlicensed
17	Dawasamu Timber	216	Unlicensed
18	Evergreen Forest	174	Unlicensed
19	Fiji Pine Trust	178	Unlicensed
20	Forest of Fiji	184	Unlicensed
21	Infocus Sawmill	205	Unlicensed
22	King Rock Investment	169B	Licensed
23	Lakeba Development	138A	Unlicensed
24	Lakeba Development	138B	Unlicensed
25	Lakeba Development	138C	Unlicensed

Item No.	Sawmills	License No.	Status
26	Lakeba Pine Scheme	138	Unlicensed
27	Local Timber Distributors Ltd	203	Unlicensed
28	Lutu Sawmill	175	Un-operational
29	Nacaubuta Sawmill	170A	Unlicensed
30	Naita Logging	200	Unlicensed
31	Navunidomodua Sawmill	183	Licensed
32	New Mart Auto Sales	209	Unlicensed
33	Nukurua Mahogany Trust	206	Unlicensed
34	Qalitakivuna Sawmill	194	Unlicensed
35	Resource Management Ltd	190A	Licensed
36	Resource Management Ltd	190B	Licensed
37	Resource Management Ltd	190C	Licensed
38	Rups Investment Ltd	126	Licensed
39	Tapa Timbers	187A	Un-operational
40	Toga Sawmill	176	Licensed
41	LUC Fiji Ltd	191	Unlicensed
42	Viti Timbers PTY	193A	Unlicensed
43	Viti Timbers PTY	193B	Unlicensed
44	Viti Timbers PTY	193C	Unlicensed
45	Yarawa Timbers Hardware	187B	Un-operational
46	Yavusa Vugalei Enterprise	186	Unlicensed
WESTERN			
47	Singh's Logging Investment	199	Licensed
48	Future Forests Fiji	218A	Unlicensed
49	Future Forests Fiji	218B	Unlicensed
50	Naboutini Transport	201	Unlicensed
51	IITui Enterprise	179	Unlicensed
52	Jacks Handicraft Sawmill	168	Unlicensed

Item No.	Sawmills	License No.	Status
53	Kali & Madrai Sawmill	182	Unlicensed
54	Kantas Construction	185	Unlicensed
55	Metro Civil Supplies	207	Licensed
56	Nakoro Forest Sawmill	188	Unlicensed
57	Rainbow Springs Sawmill	200	Unlicensed
58	S. K. Davey	219	Licensed

Source: Timber Utilization Division, Forestry Department, Nasinu

*Unlicensed – not operational in 2015.

DEPARTMENT OF FORESTRY
Headquarters Level 3, Takayawa Building, Toorak Road, Suva
Phone: (679) 3301 611
Fascimile: (679) 3318 692
website: www.forestry.gov.fj