



FIJI PINE ERP SYSTEM

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REQUEST FOR TENDER (RFT)

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1. Introduction

Fiji Pine Limited (FPL) stands as a cornerstone of the Fijian forestry sector, deeply rooted in its commitment to sustainable practices and socio-economic advancement. For decades, FPL has played a pivotal role in harnessing the pine resources of Fiji's forests, while simultaneously fostering economic prosperity and environmental stewardship.

As a leading entity in the forestry industry, FPL oversees the nursery, forest management, cultivation, harvesting, and processing of pine timber across vast expanses of Fiji's landscape. Through meticulous forest management practices, FPL ensures the preservation of biodiversity and the long-term health of our forests, safeguarding these invaluable natural assets for generations to come.

Beyond its ecological endeavors, FPL's operations hold significant socio-economic importance for the Fijian people. The forestry sector, spearheaded by FPL, serves as a vital source of employment, empowering local communities and contributing to rural development initiatives. By providing livelihood opportunities and fostering skill development, FPL plays a pivotal role in enhancing the quality of life for countless Fijians, particularly those residing in rural areas.

Furthermore, FPL's activities extend far beyond the borders of our nation, with exports of high-quality timber and woodchips products contributing to Fiji's international trade and economic growth. This not only enhances Fiji's standing in the global market but also generates revenue streams that support essential services and infrastructure development nationwide.

In essence, Fiji Pine Limited epitomizes the harmonious integration of environmental sustainability, social responsibility, and economic viability within the forestry sector. Through its unwavering dedication to these principles, FPL continues to enrich the lives of the Fijian people while preserving the natural heritage of our beloved islands.

The Fiji Pine Commission came into being as a body on the 1st of July 1976 under the provision of the Fiji Pine Commission Act (Cap 151).

The primary function of the Commission was to establish a viable forestry industry based on planted forests. Much of the plantation development is on iTaukei land and the duty of the Commission (now Fiji Pine Limited) includes involving landowners in its commercial activities on terms that aim to ensure the continuing viability of the industry. The areas for pine planting were mostly degraded grassland which was not suited for other activities.

The plantation areas fall under 6 forest bases:

- 1) Lololo Forest: Covers Lautoka and Ba interior areas;
- 2) Nadi Forest: Covers Nadi interior areas;
- 3) Nabou Forest: Covers midway between Nadi and Sigatoka interior areas;
- 4) Ra Forest: Covers Tavua and Rakiraki interior areas;
- 5) Bua Forest: Covers Bua;

6) Macuata Forest: Covers Macuata.

Fiji Pine Commission was corporatized in 1990 and as part of this process, Fiji Pine Limited was incorporated. Fiji Pine Limited is a public company incorporated to take over its assets, liabilities, and obligations effective from 1 January 1991.

There are 3 companies and the hierarchy is as given below

1. Fiji Pine Limited
 - a. Tropikwood Industries Limited
 - i. Tropikwood Product Limited

Fiji Pine Limited is the parent company that holds the Tropikwood Industries Limited. Tropikwood Industries limited in turn holds Tropikwood Product Limited.

Fiji Pine Limited and Tropikwood Industries Limited are located in Viti Levu Island while Tropikwood Products Limited is located in Vanua Levu Island.

2. Objective

Objective of the Tender is to get the following for Fiji Pine Limited

1. One ERP system that can handle the operation Fiji Pine Limited and all its holding companies.
2. More user friendly and self-validating to make sure all the entries in the system is correct and accurate.
3. Show Balance sheet, Trial Balance, P&L real-time and accurate.
4. Traceability of the raw materials, products and by products with more accuracy.
5. Proper workflow and approval flow to make the process easy and secure.

3. Scope of Work

The scope of work for implementing the ERP system as expected would be as below

1. Implementation of all the design that are detailed in this document.
2. Specify required infrastructure, work closely with the service provider, to deploy the solution in the cloud provided by the Fiji Pine Limited.
3. Train the staff at all the places where the system is used.
4. Provide on the ground support for at least 1 year until all the modules are fully functional and meet management expectation.
5. Rollout the system in full with a cut-off date for the old system.
6. Identify and migrate required data from the old system to the new system.
7. Integrate with Financial ERP, HRM system to process Payroll in this system.

4. Fiji Pine Limited

Fiji Pine Limited (FPL) operates as a steward of forestry resources, meticulously overseeing the lifecycle of pine trees within leased forest areas, from initial seedling propagation to the harvest

stage. With an unwavering commitment to sustainable practices, FPL manages the entire growth process, ensuring the health and vitality of each tree under its care.

Central to FPL's operations is the cultivation and nurturing of pine seedlings, meticulously guided to maturity through expert forestry techniques. Throughout this growth phase, FPL implements rigorous forest management strategies aimed at safeguarding the integrity of the pine forest ecosystem, shielding it from potential harm or degradation.

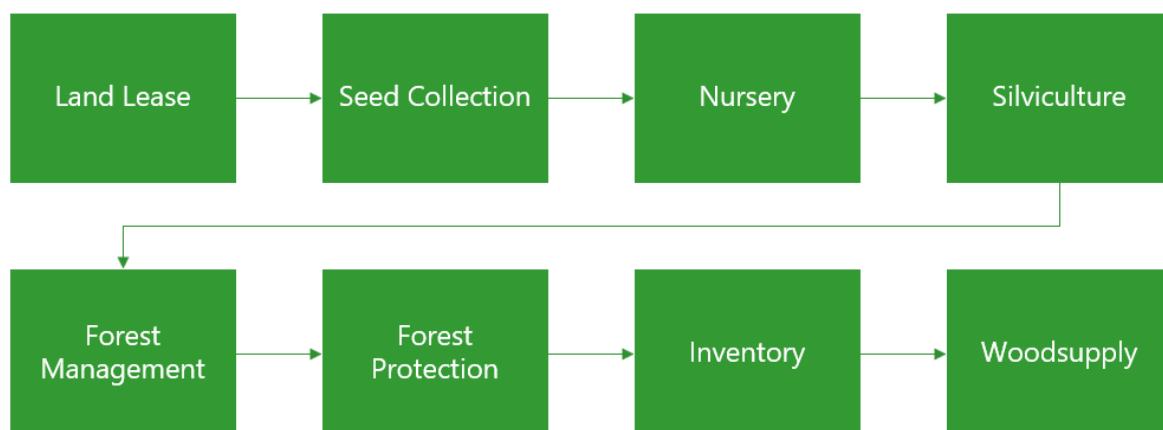
As the pine trees reach maturity, FPL meticulously orchestrates the harvesting process, leveraging years of expertise to optimize yield and quality. This phase marks the culmination of a carefully managed growth cycle, where each tree is selectively harvested to maximize resource utilization while preserving the long-term sustainability of the forest ecosystem.

Upon harvest, the harvested pine logs find their destination at Tropik Wood Industries Limited and Tropik Wood Products Limited, esteemed partners in the timber industry. FPL's collaboration with these entities facilitates the transformation of raw timber into a diverse array of high-quality wood products, catering to both domestic and international markets.

Through its comprehensive approach to forest management and strategic partnerships, Fiji Pine Limited remains at the forefront of sustainable forestry practices, ensuring the continued vitality of Fiji's natural resources while contributing to the economic prosperity of the nation.

The following are the major activities that are done by the Fiji Pine Limited

1. Land Lease
2. Establishment
3. Nursery
4. Silviculture
5. Forest Management
6. Forest Protection
7. Wood Supply
8. Audit and Process Management



4.1. Land Lease

Land Lease is to take care of all the forest land that are leased from the landowners. The information to be captured and maintained in the system. System should capture the lease start date and lease

end date. There should be reports to generate that shows the list of leases that are getting expired in the N no of years.

The rentals are paid half yearly. Paid January to June and the next will be by July To December. The lease rental are paid every second month of the period. The system should maintain the lease rental /hectare with effective date. The lease should have the information of like lease ref, Mataqali, Tokatoka, hectares leased.

The system should be able to generate the list of all the lease that are due for that half of the year.

There is also Stumpage that needs to be paid. This is worked out at 12% of the net revenue. This will have to be generated.

There should also be a report that shows tonnage that is extracted from the lease area.

System should have the following functionality with respect to this functionality

1. Capture and store all the lease area information
2. Capture and store all the landowner's information
3. Lease rate per hectare
4. Process payment to the landowners
5. Process Stumpage duty for the lease area
6. Generate reports to show the list of leases with remaining lease period

4.2. Establishment

The process of nurturing trees from seed collection through seedling propagation and planting collectively constitutes the Establishment phase of forestry management.

As part of this functionality each forest station in-charge will required to do the following

1. Create an SAP (Standard Action Plan) this will have all the jobs that will be done as part of establishment and the same will be presented to the management.
2. The SAP will be reviewed and verified by Audit team and will be taken for approval by the CEO
3. Once the CEO approves the SAP, then the actual work will be done on the ground.
4. The SAP will have the budget with details of the job that will be undertaken.
5. Once the actual work is completed, then payment request will be raised by the station IC.
6. The Audit team will check the payment request against the allocated budget for the SAP
7. Once the payment is within the budget it will be approved by the Audit team
8. Once the audit team approves, then the payment note will be raised.
9. The payment note is again verified and approved by the audit.
10. Then the payment note will be authorised by the SMO
11. Once the payment note is approved, then the actual payment will be done against the payment request
12. If the payment request is not within the budget, then another SAP to be done and should be approved to process the excess payment

The SAP is currently done every 2 weeks and that is approved. The SAP will then form the base for any payment that is being made for that 2 week.

If there are any excess work that is being done beyond the approved SAP budget, then another SAP will have to be done and approval will have to be obtained.

Payment is done every week for the previous week of work that is completed. The station IC will have to submit all the completed work and send for payment.

The approval process for the payment request are as below

1. Enforcement Manager will have to approve
2. Then GIS manager will have to approve
3. Then SMO will have to approve
4. Then Audit will have to approve
5. Then Finance will have to prepare the payment note
6. Once the payment note is prepared, then again audit will have to approve the payment note
7. Then CEO / SMO / Manager Finance will authorise the payment note

The above process is applicable for all the payment request that is being sent from each forest station.

The whole process to be made paperless by allowing access to all the stakeholders right from raising a request to making the payment.

4.3. Seed Collection

Crop Survey is done and the sample cones are taken for try cut test to see if the cone is ready for collection in few weeks. Once the survey is done then the station officer will be informed the timeline to start cone collection to get the seed.

The station will get ready with the required materials like bags for cone collection. The station officer will discuss with the villages nearby to have the gang ready for cone collection.

The following is done as part of cone collection

1. Details of individual member information is collected along with the number of bags issued. Each bag has a number which is also recorded against the member to whom the bags are given
2. The bags are filled with cone and left in the forest. The officer will go for inspection and check the bags that are collected and bring it back to the station.
3. The bags are identified to each member based on the bag number. The number of bags collected is recorded against each member.
4. If the bags are full, then full payment is made and if the bags are half, then half payment is made.
5. The per bag rates are applied and the payment request is prepared.
6. Payment request is made ready with all the member list along with number of bags that are collected for the day and the total amount that needs to be paid.
7. If a horse is hired for cone collection to transport the bag from the forest to the nearest road access, then there is a separate payment made for the usages of horse. That is a fixed rate per day is paid. Usually, horse is used during rainy weather.
8. The payment request also includes the payments to be made for the horse usage to the owner of the horse.
9. Once the cone is dried in the station, the seeds are collected from the cone. If the gang is used for seed collection, then the cost per bag of seed will be paid.

10. The collected seed are stored in the station before it's been moved to the nursery for sowing, germination and seedling.

4.4. Nursery

Each station has their own nursery. The following are the activities that are done in the nursery.

1. Sowing
2. Germination
3. Potting
4. Seedling Maintenance

Every week there are dispatches of seedlings done for different forest station. They are loaded in a truck and send to the station.

Each station should be able to raise a request for seedling from the nursery and the seedling will be dispatched based on the request. System should have provision for the station IC to raise the request and the Nursery IC should be able to dispatch based on the request.

The following information to be captured in the system as given below

1. Capture information of total seeds from which forest station
2. How much sowing is done
3. How many potting done in a day.
4. Agewise availability of seedlings in each nursery.
5. How many seedlings are distributed for planation to forest.
6. Raise SAP in the system from each station for approval
7. Raise Payment request against each SAP for processing
8. Make payments against all the approved payment request
9. View all the payments that are made for the particular member or gang to whom the payment is made
10. Raise seedling request from one station to another station if there are any needs.
11. Maintain the seedling availability in real-time.
12. Dashboard to view the performance of each nursery.

4.5. Silviculture

Silviculture is managing the growth of the pine tree from 0 years to 2 years.

The planting and replanting activities are part of Silviculture activities. The plant is protected from the animals and other danger that would come during the first 2 years.

GIS team will release the land that is ready for planting. Once the land is released for new planting or replanting, the ground is prepared by means of land clearing, burning, blanking or line cutting.

Blanking is clearing the area where there is high mortality rate of the planted seedling or damage due to fire. Only those areas that has high blanking rate will be taken up for replanting.

This is done by the gang engaged to do the work. The quality control officer will then check the area and confirm the planting is done as per the requirement.

The gang members are paid based on the work taken up based on the SAP. The gang members are paid based on work that is done. If they have done line cutting and restocking.

4.6. Forest Protection

Forest protection is protecting the forest from fire accident and livestock. The forest is protected from 0 years to 5 years from any live stock. The forest is protected from 0 years to 15 years from forest fire accident.

Watch towers, Forest guards and gate keepers are put in place to safe guard the plantation of the pine trees until 15 years.

Individual casual labours are taken and they are paid on a weekly basis. There is a fixed rate for these duties that will be paid.

Similar to other functions, the following are done

1. SAP to be done every 2 weeks which should include the forest protection activities planned.
2. SAP should be approved by the CEO
3. Once the SAP is approved, the activities are performed and the Station IC will raise the payment request for the individuals on a weekly basis
4. The request is will approved by the Audit team based on the SAP approved
5. The request is then sent for SMO approval
6. Then the request is sent to finance to prepare the payment note
7. The payment note is again verified and approved by the audit team
8. Then the payment note goes to CEO / SMO / Manager Finance for authorization.
9. Once the payment note is approved then the payment is made to the individual who were involved in these activities.

4.7. Forest Management

Forest management starts from 2 year to 7 years. The following are done as part of forest management

1. Slashing
2. Pruning
3. Thinning

Slashing – Removal of invasive species, like other plants other than the Pine Tree.

Pruning – Removal of branches from the pine tree. Around 40% from the bottom is cleared

Thinning – Removal of regeneration of pine trees. Other than the one that are planted.

The gangs are hired for each activity.

The slashing depends of the percentages. If there are lot of reeds, then 60% of the hectare will be paid for slashing.

Pruning and Thinning are paid per hectare.

The following is done a part of forest management and the system should capture the following

1. SAP is prepared for forest management every 2 weeks.
2. Once the SAP is approved, then the operation starts
3. The Gangs who are hired to do the operations are given the demarcation of the area that needs to be covered for the operation

4. On a weekly basis the area is measured where the operations are completed and the gang are paid as per the area. There are standard rates defined for each operation per hectare.
5. The payment request is raised from the station IC. The payment request then goes through the verification and approval process.
6. Once the payment request is approved, then the payment note is generated.
7. Once the payment notes is approved, then the payment is done to the gang.

The following are the approval process for the payment request

1. The payment request comes with the details of the area covered and what operation are done. This is first verified by the enforcement team and approved.
2. Then the request is approved by the GIS team by checking the area covered
3. Then the request is approved by the Audit team to make sure the request is correct and within the SAP
4. Then the request is approved by the finance team for payment
5. The Payment note is then again approved by the audit team
6. Then the payment note is authorized by CEO / SMO / Finance Manager.
7. And then the payment note is processed by the finance team for payment.

4.8. Inventory

The management of forest from 6 to 12 years is done by inventory team. The tree availability data is collected. The team goes out for taking stock of the available trees and an estimate will be done by the inventory team of what will be the yield per hectare from the particular forest. The projections are done for each Planting Unit (PU) and Stand.

The system should be able to capture the projection entered by the inventory team. This will be recorded every 6th year and the 12th year of the pine tree growth. This will be captured to calculate the projection and estimated outcome of the wood supply.

The system should alert the inventory team that a particular PU and stand is around 6 year or 12 years of pine tree growth so that they will be able to do their inventory and update the projected estimate.

4.9. Wood Supply

Wood supply is harvesting. This is done from 15 years and above of the tree growth. The more the tree is older, it gives more yield.

Based on the crop aging the GIS team will release the area that are ready for harvesting.

The wood supply team will harvest the 20+ year crop. The following will be done as part of harvesting

1. The team will work on the distance to and fro from the mill to estimate the cost.
2. The second will be the field verification.
3. Verify with the inventory data to compare the yield that is expected from the released area
4. Then the staff will be doing the field marking
5. HP and Text report will be prepared and will be send for ministry of forestry
6. The ministry of forestry will do their own inspection and provide approval to carry out the harvesting
7. Now once the area has been released
8. The logging contractors will be contacted and identified.

9. The rate that will be applied for the area and then the contractor will have to sign agreement
10. Induction will be done for the contractor and they will be advised to work as per the Fiji Pine specification
11. The inventory team will come in and do the final inventory of all the stock available before the operation starts
12. Once the operation to harvesting starts, the enforcement will be in to make sure that the contractors are working in accordance with the Fiji Pine procedures
13. From the total logs that are harvested, then the stumpage will be computed and paid to each Mataqali.
14. The total tons that used to compute the stumpage from a stand is given to the Mataqali of that stand through TLTB
15. The gangs who harvest will be paid a fixed rate per ton
16. The distance of the forest to mill is computed and the trucks are paid a fixed rate based on the distance for each trip.
17. The machinery that are required for logging are provided by the contractor. The loading of the log into the truck is also being done by the logging contractor
18. The truck is unloaded at the mill by the log handling contractors.
19. Mostly the trucks are filled with one type of the log. If there are 2 different logs, then the truck will be weighed twice and will have a separate docket.
20. The docket will be provided at the weigh bridge once the logs are weighed. There will be 3 copies.
21. 2 copies given to the driver and for them the share with the logging contractor. A copy is sent to the finance team for payment.
22. The payments are processed on bi-monthly basis to the contractors and the truck drivers.
23. The payments are processed based on the docket number and the total is paid directly to their bank account.

The weighbridge in TWIL will record the gross weight and net weight. Most of the information is captured at weighbridge. Every day the system should be able to import the data from the WB system. The record will be populated directly to the system.

The logging rates will be coupe rate. coupe rate 70,80 already pre entered in the system. The harvesting rate will be higher for the coupe70 compared to coupe 80.

The rates for cartage are pre entered in the system. There are trucks inhouse and contracted. All the trucks to be treated very similar like a contractor. The rates are applicable based on the roundtrip distance from the forest to the mill

There will be invoice generated from one company and paid to the other company. Fiji Pine will raise the invoice and it will be paid by TWIL. There will be fixed mill gate price per ton.

4.10. Audit and Process Management

This is a very important department as all the payment request and payment note goes through the Audit. The audit team will refer to the SAP that is in place and make sure the payment request is not going beyond the SAP. If there are any missing supporting document that is mandatory then the audit team will follow up with the respective team in the field to send the information and have them attached in each of the payment request.

The audit team involvement will be seen in the flows that are explained in the individual modules above.