INTERNATIONAL TROPICAL TIMBER ORGANISATION

ITTO

Project Completion Report

TITLE:	Improve Forest Governance in Mozambique.
PROJECT NUMBER:	**PD 732-14- Rev.2-M**
HOST GOVERNMENT:	Government of Mozambique
NAME OF EXECUTING AGENCY:	National Directorate of Forest

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HOST GOVERNMENT:	Government of Mozambique
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STARTING DATE OF PROJECT:	1st August 2018
DURATION OF PROJECT:	15 months
PROJECT COST:	US$406,231

The ordinal number and type of the Report: Project completion

The Project Management Team will be as follows

1. Darlindo Pechisso – Project Coordinator, DINAF
2. Virginia Langa– Financial officer, DINAF
3. Felizarda Mucavel - Secretary, DINAF
4. Silvestre Santos– Project Director

PLACE AND DATE:	Maputo, Mozambique, 09 th November 2023

• *Disclaimer*

Table of Contents

Executive Summary
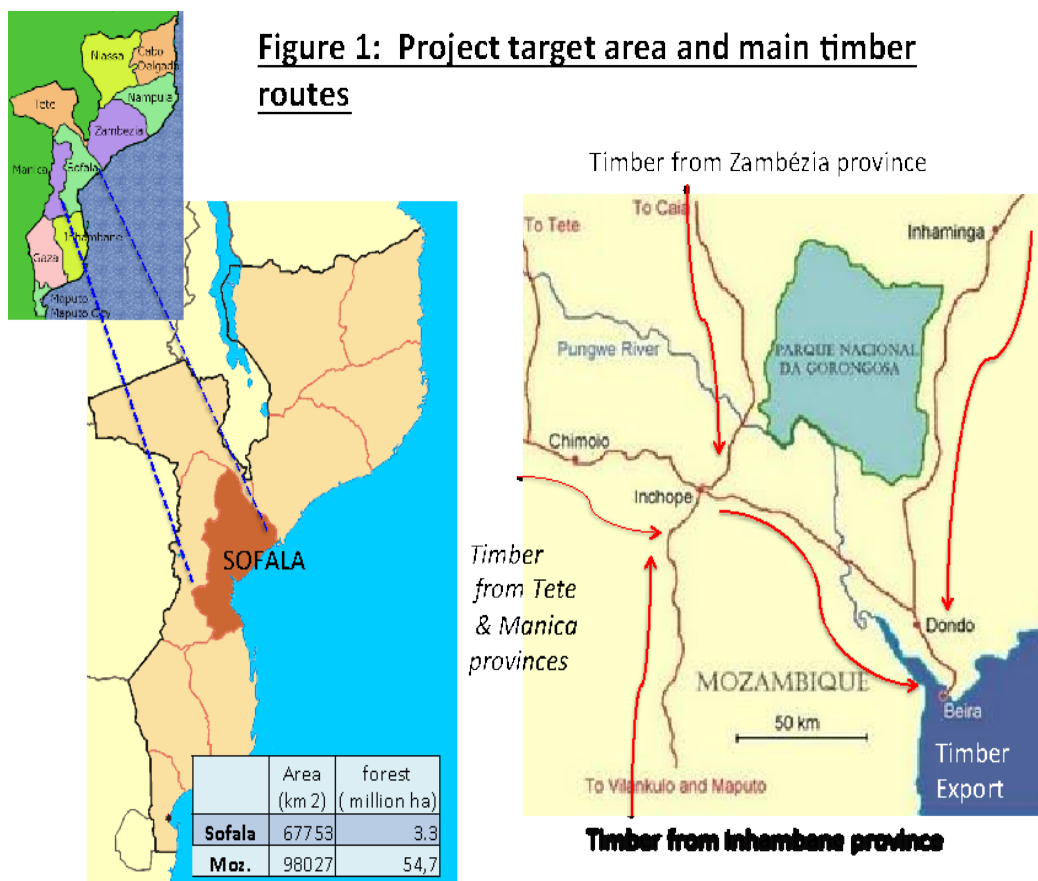
1   Project Identification

This project proposal aimed to implement a monitoring and control system to prevent illegal logging in Mozambique. Estimations of illegal logging figures around 50% are a strong warning sign indicating that the current paper-based control and information system is not working properly. Impacts of illegal logging affect the forest sector progress and discourage initiatives for forest management. Non-payment of harvesting fees creates an unfair business environment and leads to unsustainable resources extraction.

The increasing scale of illegal harvesting makes it useless to invest in improved logging practices and resource management costs by forest operators. The future of Mozambican forest resources is endangered and the situation has to be reversed. This project was implemented in phases (of which this project is the pilot phase) and by regions and is based on stakeholder's involvement and the introduction of tools and equipment to improve monitoring capabilities.

Mozambique, located in eastern coast of southern Africa with an area of 799 380 sq.km, borders with Tanzania, Malawi, Zambia, Zimbabwe, Swaziland and south Africa. The country is divided into 10 provinces with the capital city – Maputo, situated in the south.
The project will cover selected forest operators in Sofala province and its road-control posts (figure 1).

Sofala province, located in the central region of Mozambique, borders with Tete and Zambézia to the north, inhambane to the south, Manica to the west and the indian ocean to the east. Sofala province comprises 12 districts (Machanga, Buzi, Chibabava, Nhamatanda, Dondo,

Figure 1: Project target area and main timber routes

	Area (km 2)	forest (million ha)
Sofala	67753	3.3
Moz.	98027	54,7

1.1 Context

Social, cultural, economic and environmental aspects

Mozambique is rich in forest resources with 51% of the national territory (40 million hectares) covered by forests, of which 26.9 million hectares are classified as production forests, that is, vegetation formations of timber volume greater than 32 cu.m/ha. Half of production forests (13.2 million ha) are located in conservation areas, natural reserves and national parks and with restricted potential for timber production.

Forest resources are not evenly distributed over the territory. Northern and central provinces are considered the most favorable areas for timber production. Sofala, Zambézia and Cabo Delgado provinces contributed with 70% of total log production licensed in 2007. In 2013, the increasing demand for *Colophospermum mopane* has generated an sharply increase of licenses in Tete province, but the previous mentioned provinces of Sofala, Zambézia and Cabo Delgado are still leading as timber production provinces.

Sofala province comprises five major rivers basins (Zambeze, Pungué, Buzi, Save and lake Urema) and with exception of the fertile fluvial soils the most part of sofala soils have low fertility and sandy red soils are predominant. Average rainfall is around 1.000 mm/year concentrated during the warm and humid season from November to April, and seasonal flooded plains and coastal mangroves provide habitats for a range of wildlife being the plains of Marromeu complex in the lower

Zambezi the largest buffalo reserve in Mozambique. Sofala province houses 2 important country conservation areas: Gorongosa National Park (3770 km2) and Buffalo reserve in Marromeu (2500 km2).

Sofala province forest covers an area of 3.3 million hectares of which 1.4 million are classified as productive forests.

1.2 Origin and problem

Timber tracking and forest monitoring

Timber tracking refers to the capacity for tracing timber along supply chain. Electronic timber tracking is a relatively new development in forest sector (Seidel *et al*., 2012). Timber tracking system based on paper has been used in Mozambique, but increasing illegal logging trend brings to evidence that the ongoing monitoring and tracking system has numerous flaws and is influenced by corruption.

Increasing timber demand for domestic and international supply coupled with increasing illegal logging is rising the pressure for the forest sector to move from paper-based systems towards electronic systems.

The forest sector has been slow to incorporate the advantages of growing mobile phone and internet connectivity in Mozambique, while illegal loggers and poachers are adopting such modern technologies to by-pass governmental control.

2 Project Objectives and implementation strategy

Objectives

The Project development objective is:

To reduce illegal logging and forest degradation by strengthening forest governance.

Impacts indicators are (**3 years after project completion):**

- **Traceability of legality of timber products in main timber production Provinces established**
(Sofala, Zambézia, Cabo Delgado).

- Verification of origin and timber tracking approved for up-scalling to nationwide.

- **Illegal logging reduced to 30% of licensed harvesting**

Specific objective and outcome indicators
The project specific objective is:

To improve monitoring and control systems for forest law compliance in Mozambique by developing and test the use of e-tracking systems.

Outcome indicators:

- Electronic Timber tracking system developed and approved for up-scaling at national level.

- Introduction of geo-referencing of trees and improved records/ harvesting plan.

- 70 forest law enforcement agents trained

- 48 community members trained

- 18 forest workers trained

- illegal logging prevention strategy approved

- illegal logging control forum established

DESCRIPTION OF PROJECT INTERVENTIONS

Outputs and activities

Outputs
Four outputs have been defined correspond to the main causes of the problem to be addressed by the project:

Output 1 -   Knowledge of illegal logging context and timber chain of custody improved.
Output 2 -   Pilot scheme and electronic traceability options for forest monitoring & management designed and tested.
Output 3 -   Capacity for forest monitoring and control improved.
Output 4 -   Stakeholders involvement improved.

Implementation approaches and methods

The project approach is based in 5 pillars:

1.   Integrated monitoring system

Monitoring system is mostly based on permanent roadblocks and eventually some mobile teams do routine vigilant activities. Law enforcement team lack communication to a database system to verify accuracy and legality of authorizations provided on roadside and illegalities are usually settled on the site with benefits to all parties involved. The utilization of timber tracking systems (labeling, barcodes) integrate with a database available to law enforcement agents will reduce illegalities. The project seeks to introduce data capture and transmission to a central provincial database, which can be accessed by law enforcement agents and governmental officers anywhere at anytime.

2. Introduction of spatial data

Illegal logging is closely related to harvesting in protected areas, on unauthorized areas and outside demarcated forests concession areas. Origin of trees is an important information for forest volumes control and monitoring. The project pursues the introduction of GPS data for harvested trees to complement the information on measurements (diameter and length), species and enumeration system. This implies the change of ongoing tree recording only at log yards and not at harvesting sites. GPS operation might be a challenge and project intends to develop an application for mobile phones that allow the storage of GPS information. Spatial information is crucial for conflicts reduction among operators and communities and to implement effective forest management.

3. Involvement of forest operators and community members on pilot timber tracking study implementation.

Forest operators and more specifically harvesting teams are important stakeholders to any modifications proposed on registration procedures. They will be closely involved in the all process of pilot testing of timber tracking methods and have a crucial on evaluating results. They will be involved in project results dissemination and further implementation by other operators. On the other hand, community members will be involved in the use of electronic application for recording of tree coordinates and data transmission. This will be an innovative approach based on the wide use of sms messaging and open sources softwares(such as Ushahidi) will be explored.

4. Involvement of civil society on illegal logging control

The establishment of illegal logging control forum in each province will provide a platform for discussion and improvement on monitoring of forest activities at local level. Participation of Non Governmental. Organizations, research institutions, private consulting companies and forest operators, is an important step to involve civil society to contribute and participate on solutions for a problem that affects all Mozambicans.

5. System refined by Implementation on experimental basis and seeking simplicity.

The project regards the gradual introduction of electronic timber tracking built on the existing paper-based record system and information handling as the best entry point. The piloting phase seeks the introduction of simple reforms that will allow understanding the system, its advantages and disadvantages and the gradual adoption of an e-governance agenda on the forest sector.

Assumptions and risks

nr	Assumptions	Risks	Mitigation measures
1	There is institutional and social commitment and willingness to fight illegal logging	Some stakeholders will continue to support illegal logging;	Involve civil society and NGO's as main supporters of project objectives
2	Forest professional sector and forest operators do not accept the introduction of timber tracking and control improvement;	The project results will be confined to pilot areas.	Design an appropriate system to local conditions and realities; Training of foresters and field workers;
3	Safety and peace in Sofala province	Armed conflict and social unrest, will restrict project activities.	Choose a different province and safe areas for pilot testing.
4	The project will solve the problem of illegal logging in Mozambique.	High expectations of public and technicians	Present the timber tracking as a tool with limitations and operated by humans

Sustainability

This project proposal has the potential to be a catalyzer for introducing better governance in forest sector and project follow-up can be financed with funds from national development budget once the technical aspects are proved to be adapted to the country situation, and professionals and public gain a better knowledge of illegal logging actors, drivers, revenues losses, legislation and procedures gaps.

With the envisage of long-term sustainability on project follow-up, the national directorate of forestry was selected as the implementation agency considering its national scope and State budget operation.
Long term funding options will be studied:
• Self-budgeting from law enforcement fines and taxes or through national budget.
• The involvement of a governmental institution (DINAF) as the project executing agency creates the possibility to gradual introduce changes approved during project implementation through the national budget allocations.
• Fund raising with national and international partners;

ITTO, with experience with forest industries development, forest management sustainable indicators pioneer work and more recently timber tracking for illegal logging control is the most suited partner for an innovative project

3 Project performance (Project elements planned and implemented)

Outputs/Activities	Percentage executed	Originally planned completion date
A 2.1.1 Assess timber cruise methods appropriate for forest concessionaires and simple logging forest operators & communities.	100%	31st December 2018
A.2.1.2 To prepare a detailed technical proposal for field-testing	100%	31st March 2019
A. 2.1.3 Conduct focus group discussions to disseminate Information on pilot-study and field-testing methodology	100%	31st January 2019
A. 2.1.4 Configuration of platform interface, data capture modes, online data entry and overall environment to implement the technical specifications needed to verify chain of custody and products origin	100%	31st January 2019
A. 2.1.5 Configuration of the database center to host data.	100%	31st January 2019
A. 2.1.6 System provisioning on hosted infrastructure	100%	30th September 2019
A. 2.1.7 Configuration of a simple system for data capture and transmission at harvesting sites, including software and applications design	100%	30th September 2019
A. 2.1.8 Develop and test e-monitoring system by community members on forest operations - pilot areas	100%	30th September 2019
A. 2.2.1 Implement field-testing and data collection;	100%	31st May 2019
A. 2.2.2 Data analysis and report elaboration	100%	31st May 2019

	Percentage executed	Originally planned completion date
Outputs/Activities		
A.2.3.1 Design and production of training modules, manuals and guidelines	100%	30th April 2019
A.2.3.2 Training of users (135 trainees) on the configured system (forest operators, community members, forest law enforcement agents, provincial technical staff)	100%	30 April 2019
A. 2.4.1 Workshop for activity results dissemination and proposal for scale-up of operations elaborated and discussed.	100%	30 April 2019
A.3.1.1 Equip 9 checkpoints (8 checkpoints and 1 additional at Beira port) with communication systems and timber chain of custody traceability software	100%	31st March 2019
A. 3.1.2 Equip provincial data center for data retrieve and analysis.	100%	30th April 2019
A. 3.1.3 Implement reports system to different levels;	100%	30th April 2019
Activity 4.2 Elaborate Provincial Strategy for prevention and control of illegal logging	100%	
Activity 4.3 Establish illegal logging control forum in Sofala province	100%	31st May 2019
A5.3 Project results evaluation and dissemination – National workshop	100%	30th Sep 2019

Outputs/Activities	Percentage executed	Originally planned completion date
A5.4 Internal monitoring and Progress reporting writing	100%	30th Sep 2019
A5.5 External monitoring, report, writing and pilot phase evaluation		30th Oct 2019

Description of the work implemented in the period

The project began with the identification of the steering Committee members, headed by the Deputy National Director and consists of the Project Coordinator, three representatives from WWF – Mozambique (NGO), a representative of the National Agency for Environmental Quality Control and the Project Director.

The project was designed to be implemented by the ex. National Directorate of Land and Forests, which was under the Ministry of Agriculture (MINAG) and which for structural reasons of the Government is now designated as the National Directorate of Forests is currently under the supervision of the Ministry of Land and Environment (MTA). The Provincial Forestry Department in Sofala is now supervised by the Provincial Service of Environment (SPA).

The Forest Law Enforcement has been carried out by the Environmental Quality Control Agency (AQUA), which is also under the supervision of MTA.

During this period the project held a meeting of the Forum and made a diagnosis of the value chain and the current situation of forest exploitation, especially illegal logging, and elaborate the Provincial Strategy for the prevention and control of illegal logging in Sofala.

The other activity is the Log traceability pilot study for Sofala Province, which define the recommended traceability system for the logging operations in Mozambique including a barcode tagging system, record keeping, physical checks, legal documentation, logistical considerations, and client consultation. By implementing this system, ITTO, and DINAFF will be able to track and verify the origin and destination of all harvested timber logs, ensuring the sustainability and legality of their operations.

Unfortunately, project activities had to stop, due to the Covid 19 Pandemic and other issues.

After Idai Cyclone, the project had to stop some activities due to difficulties in signing contracts with the consultants. This problem delayed the implementation of activities for more than 12 months since it was not possible to pay the consultants and now covid 19 Pandemic.

Execution of the workplan

2.1 Workplan review

Outputs/Activities	Responsible party	Schedule											
		M5	M6	M7	M8	M9	M10	M11	12	13	14	15	
A 2.1.1 Assess timber cruise methods appropriate for forest concessionaires and simple logging forest operators & communities.		▓											Activity completed
A.2.1.2 To prepare a detailed technical proposal for field-testing				▓	▓								Activity completed
A. 2.1.3 Conduct focus group discussions to disseminate Information on pilot-study and field-testing methodology			▓										Activity completed
A. 2.1.4 Configuration of platform interface, data capture modes, online data entry and overall environment to implement the technical specifications needed to verify Chain of custody and products origin			▓										Activity completed

Outputs/Activities	Responsible party	Schedule											
		M5	M6	M7	M8	M9	M10	M11	12	13	14	15	
A. 2.1.5 Configuration of the database center to host data.			■										Activity completed
A. 2.1.6 System provisioning on hosted infrastructure			■										Activity completed
A. 2.1.7 Configuration of a simple system for data capture and transmission at harvesting sites, including software and applications design			■										Activity completed
A. 2.1.8 Develop and test e-monitoring system by community members on forest operations - pilot areas			■										Activity completed
A. 2.2.1 Implement field-testing and data collection;						■	■	■					Activity completed
A. 2.2.2 Data analysis and report elaboration								■	■				Activity completed

Outputs/Activities	Responsible party	Schedule											
		M5	M6	M7	M8	M9	M10	M11	12	13	14	15	
A. 2.4.1 Workshop for activity results dissemination and proposal for scale-up of operations elaborated and discussed.										▓			Activity completed
A. 2.4.2. Article preparation for newsletter publication										▓			Activity completed
A.2.3.1 Design and production of training modules, manuals and guidelines					▓	▓							Activity completed
A.2.3.2 Training of users (135 trainees) on the configured system (forest operators, community members, forest law enforcement agents, provincial technical staff)						▓							Activity completed
A.3.1.1 Equip 9 checkpoints (8 checkpoints and 1 additional at Beira port) with communication systems and timber chain of custody traceability software					▓								Activity completed

Outputs/Activities	Responsible party	Schedule											
		M5	M6	M7	M8	M9	M10	M11	12	13	14	15	
A. 3.1.2 Equip provincial data center for data retrieve and analysis.					▓								Activity completed
A. 3.1.3 Implement reports system to different levels;					▓	▓							Activity completed
A. 3.1.4 Establish a system for co-enforcement of rules and regulations					▓	▓							Activity completed
Activity 4.2 Elaborate Provincial Strategy for prevention and control of illegal logging									▓	▓			Activity completed
Activity 4.3 Establish illegal logging control forum in Sofala province								▓					Activity completed
A5.3 Project results evaluation and dissemination – National workshop											▓		Activity completed
A5.4 Internal monitoring and Progress reporting writing											▓		Activity completed

Outputs/Activities	Responsible party	Schedule										
		M5	M6	M7	M8	M9	M10	M11	12	13	14	15	
A5.5 External monitoring, report, writing and pilot phase evaluation												▉	Activity completed

2.4 Outputs achievement

i) The progress made during the reporting period toward achievement of the outputs

During this period the project did other activity Log traceability pilot study for Sofala Province, which define the recommended traceability system for the logging operations in Mozambique including a barcode tagging system, record keeping, physical checks, legal documentation, logistical considerations, and client consultation. By implementing this system, ITTO, and DINAF will be able to track and verify the origin and destination of all harvested timber logs, ensuring the sustainability and legality of their operations.

ii) Outputs which have already been achieved

According the project, 5 activities was completed, (i) Activity 4.2 Elaborate Provincial Strategy for prevention and control of illegal logging, (ii) the activity 4.3 – Establish illegal logging control forum in Sofala Province, (iii) Activity A2.1.2 – Detailed technical proposal for field testing activity, (iv) A.2.3.1 - Design and production of training modules, manuals and guidelines and (v) activity A2.1.7 Configuration of a simple system for data capture and transmission at harvesting sites, including software and applications and activity A.2.1.2 - Prepare a detailed technical proposal for field-testing and traceability system for the logging operations in Mozambique includes a barcode tagging system, record keeping, physical checks, legal documentation, logistical considerations, and client consultation

3. Critical analysis of the project progress

i) Delay in implementing activities

The project started most of the activities scheduled for this period. But most of them are 80 to 90% in progress. The main reason was the procurement model.

Finally, we decide to use the ITTO procurement model. The IDAI cyclone greatly affected the Sofala province, project area, and hindered the carrying out of project activities.

After Idai Cyclone, the project had to stop some activities due to difficulties in signing contracts with consultants. This problem delayed the implementation of activities for approximately 12 months since it was not possible to pay the consultants.

The Covid 19 Pandemic, is the another reason of activities delays
To compensate for this delays period (cyclone effect, delay of contract signature and new Corona virus pandemic) and the delay of beginning of logging season affected the project activities. The project requested the extension of the project until November 2022 without an additional cost (funds).

ii) Unexpected problems

The IDAI cyclone greatly affected the Sofala province, project area, on 25 March 2019 and destroyed all infrastructure in the province of Sofala such as roads and bridges and hindered the carrying out of project activities for more than 4 months.

After IDAI, the Project had problems with the contracts of the consultants, for the following reasons:

1. The Executing Agency signed contracts with national and international consultants. These contracts were signed by the Deputy National Director representing the Executing Agency on May 2019;

2. At the time of payment, it was noted that the contracts should be signed by the Honourable Permanent Secretary and request the Ministry of Economy and Finance to adopt of hiring rules by a special regime authorized on 4th April;

3. It was hoped that with the special regime, the payments could be made, however in accordance with national law, all contracts must have approval from the Administrative Court;

4. Thus, there was a need to reconstruct the process and officially translate all documentation into Portuguese;

5. In December 2019 we had the Administrative Court approval for national consultants;

6. National consultants had to collect additional documentation regarding tax payments;

7. The national consultants were paid the first instalment on February and March 2020;

8. International consultants only had an Administrative Court approval in February 2020;

9. As it deals with international contracts, it was necessary to register the contracts with the National Treasury Directorate which approved in May 2020;

10.   We start to pay the national consultants in March, 2020 and the international in June;

11. From March 2020 until 2022, Mozambique is in a state of emergency due to coronavirus pandemic with caused many restrictions.

12. The delay of the beginning of the logging season affected the project activities.

iii) Fulfilment of the assumptions, the assumptions still valid

All assumptions are still valid.

4. Conclusions

i) State of project implementation

    a) The activities 4.3 – Establish illegal logging control forum in Sofala Province, Activity A2.1.2 – Detailed technical proposal for field testing, A. 2.1.7 Configuration of a simple system for data capture and transmission at harvesting sites, including software and applications and A.2.3.1 Design and production of training modules, manuals, and guidelines are on track,

    b) Activity 5.1 Establish a project steering committee and project review visit and Activity 5.2 Project launching workshop. The other activities are slight but not serious. The main reason for not carrying out those activities was The IDAI cyclone and the definition of the procurement model (contracts signature). The National Directorate of Forest (DINAF) coordinated the procurement process of selecting professional project staff. No objection was provided by ITTO. The project requested the extension of the project until December 2021, without an additional cost (funds).

    c) No activities are seriously endangered.

ii) This problem is already outdated since it was agreed to use the ITTO model according to the Guidelines for the selection and employment of consultants, procurements, and payments of goods and services. All consultants were contracted and paid.

iii) The problem was with defining the procurement model, cyclone IDAI effects, and the Covid 19 Pandemic. It is proposed that the next disbursement be made in September.

Responsible for the Report

Name: _____
                    (Darlindo Pechisso)

Position held: Project Coordinator.

Date: 09th November, 2023