

DUE DILIGENCE FOR *T. serratifolia* (IPE) A PROJECT OF
SUSTAINABLE FOREST MANAGEMENT IN *FAZENDA*
FRANGO D'ÁGUA, JURUTI, PA - Brazil

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LIST OF FIGURES

Image 1. Location of Frango D'água forest management plan.....	7
Image 2. Proof of staff passes to Santarem (A and B) and Juruti (C and D)	9
Image 3. UPA Division in UTs for the implementation of forest management. .	11
Image 4. Main road with good traffic conditions.	12
Image 5. Maintenance of Main Road.....	12
Image 6. Measuring the main road within the Frango D'água forest management plan.	12
Image. Conditions of the country road, due to the rains, within the <i>Frango D'água forest management plan</i>	13
Image 8. Measurement country road within the <i>Frango D'água forest management plan</i>	13
Image 9. Stockyard within the UT 21.....	13
Image 10. Stockyard within the UT 24.....	13
Image 11. Allocation of patios within the UTs.....	14
Image 12. Central courtyard.....	15
Image 13. Identification of forest management project.....	15
Image 14. Identification of the secondary road, number of UT and patios.....	15
Image 15. Signs of hunting prohibition located in the property	16
Image 16. Signaling next to the camp.	16
Image 17. Measurement of APC ipe plant.....	17
Image 18. tree <i>Tabebuia serratifolia</i>	17
Image 19. Identification of the standing portion.	18
Image 20. Identification of the standing portion within the subplot.	18
Image 21. Allocation of permanent plots within the MPA	18

Image 22. Process tips forestry.	20
Image 23. Board informing the forestry operation	21
Image 24. Stubs of Ipe wood on harvest site.....	22
Image 25. Tracks drag.....	22
Image 26. Identification of the central log yard and the stump. UT 25, Planta 118. 23	
Image 27. Identification of the central log yard and the stump. UT 26, Planta 204. 23	
Image 28. Path traversed during the tour and IPE trees checked.	24
Image 29. camp location in relation to forest management	25
Image 30 camping.....	26
Image 31. Identification of the Operating License of Porto AS Agroforestry Ltda. - EPP 27	

LIST OF TABLE

Table 1. Systematic sampling ipe with forest inventory data and PMFS performed for the measurement spot.....	16
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SUMMARY

1.	GENERAL INFORMATION	6
1.1	CONTRACTING COMPANY DATA	6
1.2	COMPANY DATA.....	6
2.	INTRODUCTION	8
3.	METHODOLOGY	9
4.	RESULTS.....	10
4.1	PLANNING OF LOGGING	10
4.1.1	Demarcation of Work Unit (UT).....	10
4.1.2	Scaling Infrastructures	11
4.1.2.1	main and secondary roads	11
4.1.2.2	Allocation yards.....	13
4.1.2.3	Identification and signaling	15
4.1.3	Forest Inventory 100%.....	16
4.2	PROCESS OF EXPLORATION	19
4.3	INFRASTRUCTURE CAMP	24
4.4	PORT	26
5.	CONCLUSION.....	27

DUE DILIGENCE FOR *T. serratifolia* MARKETING (IPE) A PROJECT OF
SUSTAINABLE FOREST MANAGEMENT IN 'FAZENDA FRANGO D'ÁGUA',
JURUTI-PA

1. GENERAL INFORMATION

1.1 CONTRACTING COMPANY DATA

Company Name: Woods Dittora Ltda - me

Trade Name: DITTORA WOODS

CNPJ: 17459582 / 0001-71

State Registration: 15397108-8

Town: Belém PA

1.2 COMPANY DATA

Owner: Sergio Bernardes Evangelista

Holder: Sergio Bernardes Evagelista

Property: Frango D'água forest management plan

Town: Juruti

LAR No.: 12384/2015

No. Autef: 272935/2016

Total area of property: 2499.8378 ha

authorized area: 2462.2688 ha

Geographic cowordinates: WGS84 Datum - 56°18'14,68 "W and 03°05'56,88" S

The Frango D'água forest management plan, where it is being carried out sustainable forest management, is approximately 130 kilometers to the city of Juruti (Image 1).

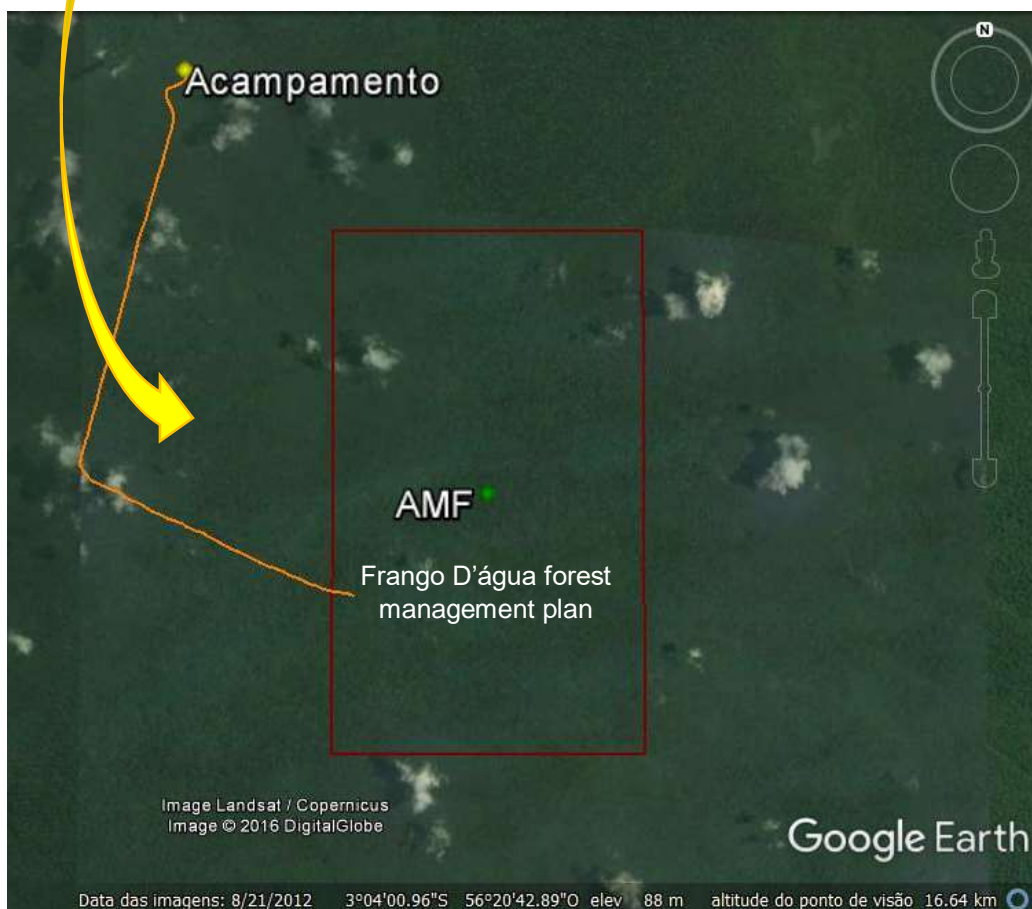
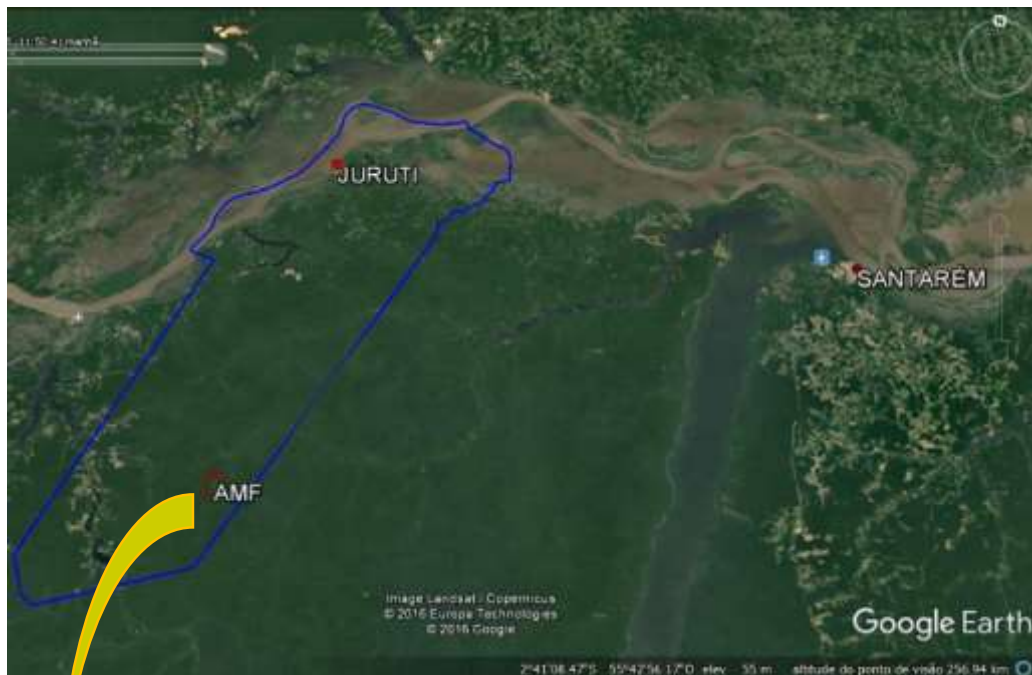


Image 1. Location of Frango D'água forest management plan



Image 2. Proof of staff passes to Santarem (A and B) and Juruti (C and D)

3. METHODOLOGY

The first stage of due diligence was performed by survey field during the execution of the Management Plan, based on the field survey manual for timber forest management plans in the Amazon (EMBRAPA / IBAMA, 2006). This manual is used by environmental agencies to monitor the developments and verify that holders of forest management plans are meeting the standards required by law. In it are present 140 checkers divided into 7 assessment units (office, infrastructure, site tips in operation, monitoring plots; site operating carrier; patios and camp).

The field evaluation was made systematically given the short time available for such activity. During the inspection, the responsibility for implementation of management on the Frango D'água forest management plan, Jairo, accompanied us throughout time and provided us with information necessary to render the report. Thus, the field team consisted of: Jairo (responsible for the project), Vanessa Sousa (Forest Engineer) and Genilson Tavares (Assistant Technician).

At the time of the visit, they had already ipe logs in the central courtyard and storage yard thus based on UT information and tree number contained in the cut logs, followed by the stubs to verify the origin. It was also observed ipe trees that had not yet

been explored, and noted circumference, height and bole quality to know that the information is in accordance with the forest inventory carried out before the operation. According to Autef No. 272935/2016, authorized the exploration of 701 trees of ipe, corresponding to a volume of 9295.9089 m³. For the time has only been checked 12% of the total, ie 88 subjects, 22 and 66 standing trees felled trees.

There was also other activities in management, such as planning forestry, conditions of main and secondary roads, yards, camping, exploration and safety process. operations drag and transport logs were not checked because, due to the onset of the rainy season, these activities were not running.

4. RESULTS

4.1 PLANNING OF LOGGING

4.1.1 Demarcation of Work Unit (UT)

The delimitation of the UT facilitates implementation of forest management. In evaluated design, there UTs 26 with an area of 100 hectares each, distributed over the MPA (Figure 3).

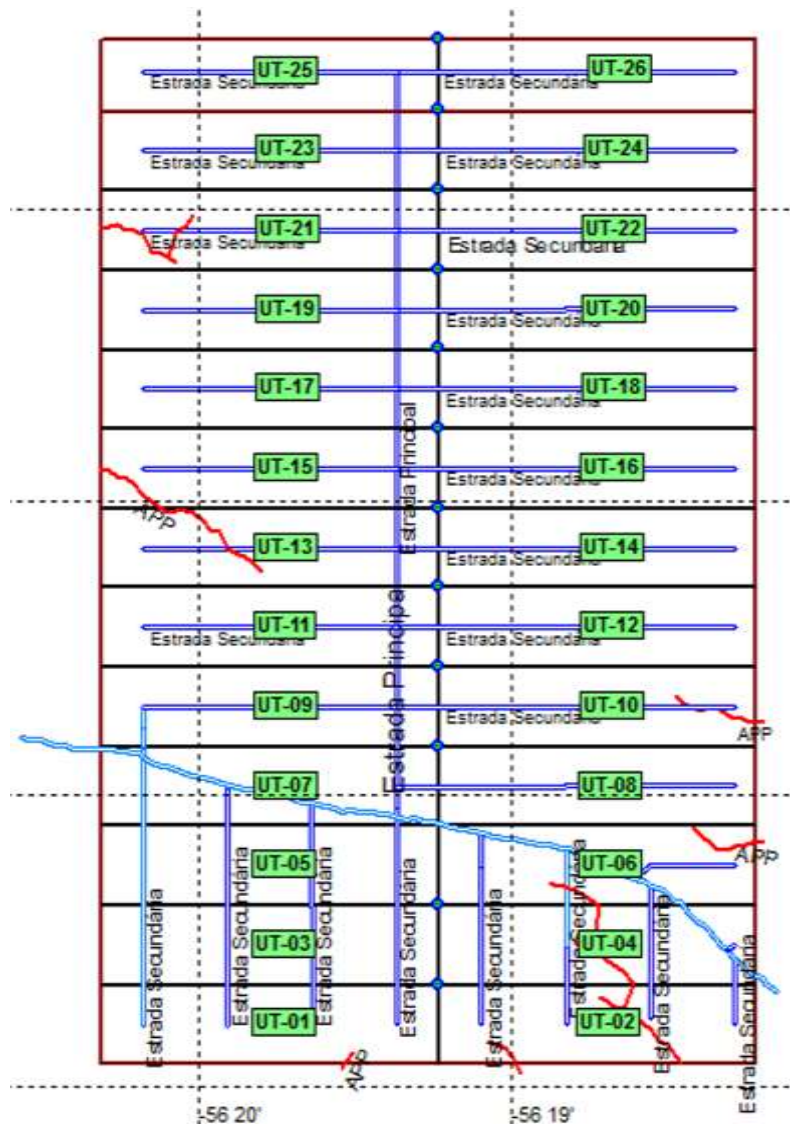


Image 3. UPA Division in UTs for the implementation of forest management.

4.1.2 Scaling Infrastructures

4.1.2.1 Main and secondary roads

The beds of the main and access roads within the AMF allow regular traffic. However, due to the rainy season, part of the road does not have trafficability conditions of trucks and tractors, so the activities of drag logs and transport are stopped. The roads to be used during the rainy season should be lined with gravel or laterite before the intense rainy season. However, this service only started this month, with heavy rainfall (Figures 4 and 5).



Image 4. Main road with good traffic conditions.



Image 5. Maintenance of Main Road.

According to the main roads legislation must provide width driveable bed between 5 and 6 meters, however, this project, the main road is also a gateway to the Mamuru river. Thus, the road has an average width of 6.5 m (Figure 6).



Image 6. Measuring the main road within the Frango D'água forest management plan.

Part of the secondary roads within the AMF allows a regular traffic, however, due to the rains, some roads do not present good condition trafficability (Figure 7). The roads have an average width of 3.8 m (Figure 8).



Image. Conditions of the country road, due to the rains, within the *Frango D'água forest management plan*

Image 8. Measurement country road within the *Frango D'água forest management plan*.

4.1.2.2 Allocation yards

Because of the rains, some storage yards are quite waterlogged soils, which makes the removal of the logs to the central courtyard (Figures 9 and 10).



Image 9. Stockyard within the UT 21



Image 10. Stockyard within the UT 24

Within the forest management area has been allocated four per UT storage yards and a central courtyard (Image 11).

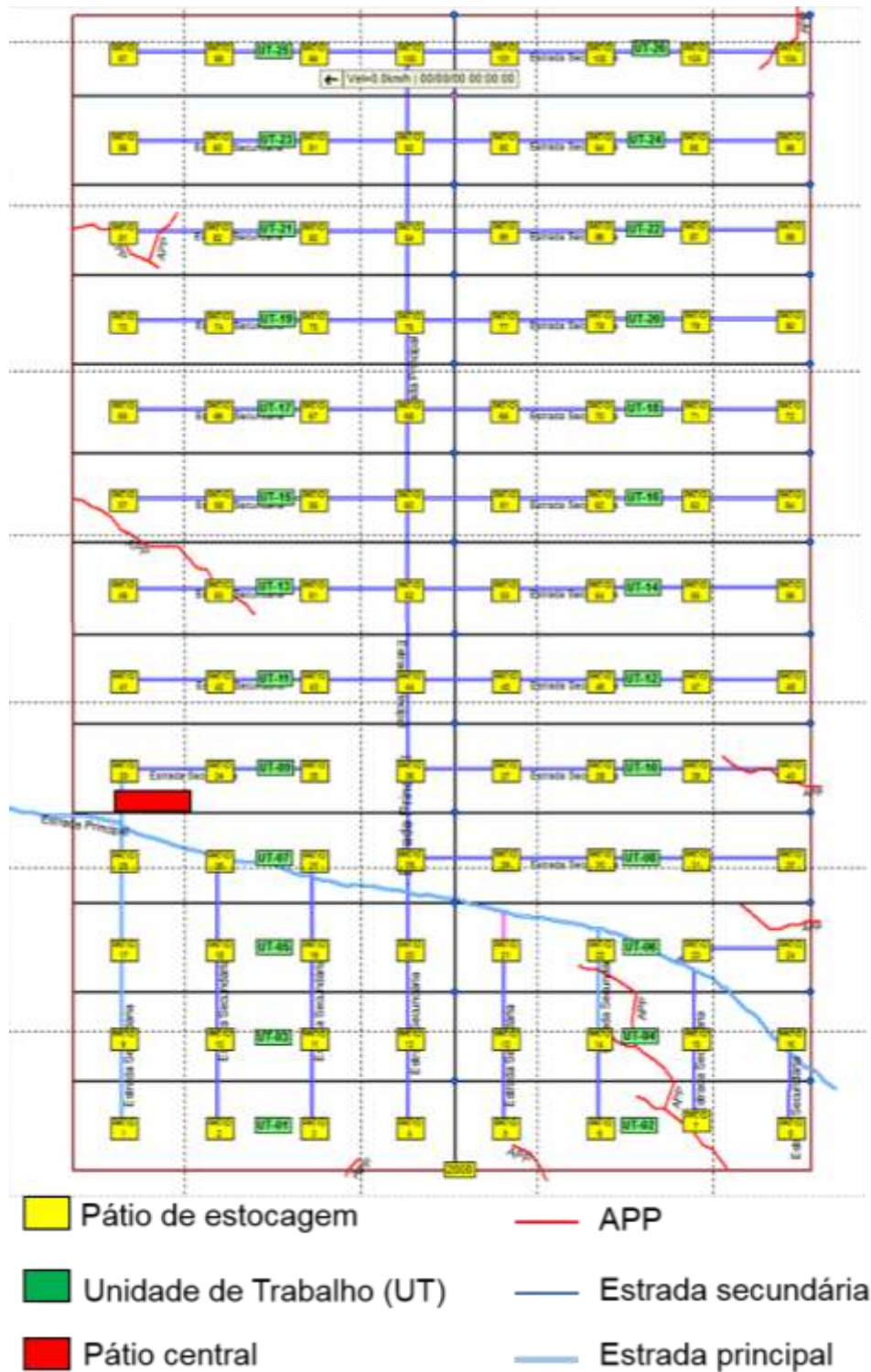


Image 11. Allocation of patios within the UTs

The logs when they reach the central patio are separated by type and made by scaling Francon method (Image 12).



Image 12. Central courtyard



4.1.2.3 Identification and signaling

The forest area is identified early in the project (Figure 13) and along the access to secondary roads there nameplate (Image 14). Only on the main road there are signposts prohibiting hunting and fishing (Image 15).

In the vicinity of the housing there nameplate and speed limit (Image 16).



Image 13. Identification of forest management project



Image 14. Identification of the secondary road, number of UT and patios



Image 15. Signs of hunting prohibition located in the property



Image 16. Signaling next to the camp.

4.1.3 Forest Inventory 100%

Forest inventory to 100%, also called forest census is a detailed survey of all commercial trees within the management area - both in age of slaughter, as the younger (that would be enjoyed only in future crops). This inventory includes dendrometric information (height, diameter of 1.30m and quality of the stem), species and location of trees within the forest.

During scanning in possession of forest inventory, there was a systematic sampling of individuals within ipe UTs that have not been explored (Figures 17 and 18). The coordinates described in the IF hit with the numbering plan in place, however, most plants showed no measures presented in circumference equal to IF. It may be that during the inventory, circumference measurements were estimated and not measured. Because of this, most values were overestimated, consequently increasing the volumes (Table 1).

Table 1. Systematic sampling ipe with forest inventory data and PMFS performed for the measurement spot.

UT	BOARD	IF 100% PMFS		Measurement situ	
		CAP (cm)	DAP (m)	CAP (cm)	DAP (m)
6	157	326	1.0377	298	.9486
7	144	481	1.5311	507	1.6138
7	138	276	.8785	238	.7576
11	12	373	.8690	349	1.1109
11	18th	293	.9326	278	.8849
11	37	251	.7990	214	.6812

11	20	167	.5316	169	.5379
11	124	216	0.6875	175	.5570
11	125	220	.7003	178	.5666
11	129	363	1.1555	328	1.0441
11	161	361	1.1491	339	1.0791
11	214	252	.8021	212	.6748
11	225	291	.9263	242	.7703
12	343	243	.7735	205	.6525
12	357	400	1.2732	366	1.1650
12	358	216	0.6875	174	.5539
12	390	333	1.0600	292	.9295
15	377	373	1.1873	329	1.0472
16	136	450	1.4324	453	1.4419
16	141	291	.9263	251	.7990
16	101	331	1.0536	310	.9868
21	101	143	.4552	143	.4552



Image 17. Measurement of APC ipe plant.



Image 18. tree *Tabebuia serratifolia*.

In addition to the circumference data, it was found that the UT 11, some cards have wrong numbering and do not match the number of coordinated and inventory. Probably it was an error to put the sign on the tree. For example, in IF, the tree # 12 UT 11 shows on the field plate 11.

Within the forest inventory, they are also made permanent plots. Within this project were allocated 10 permanent plots (Figure 21) and are properly marked (Images 19 and 20).



Image 19. Identification of the standing portion.



Image 20. Identification of the standing portion within the subplot.

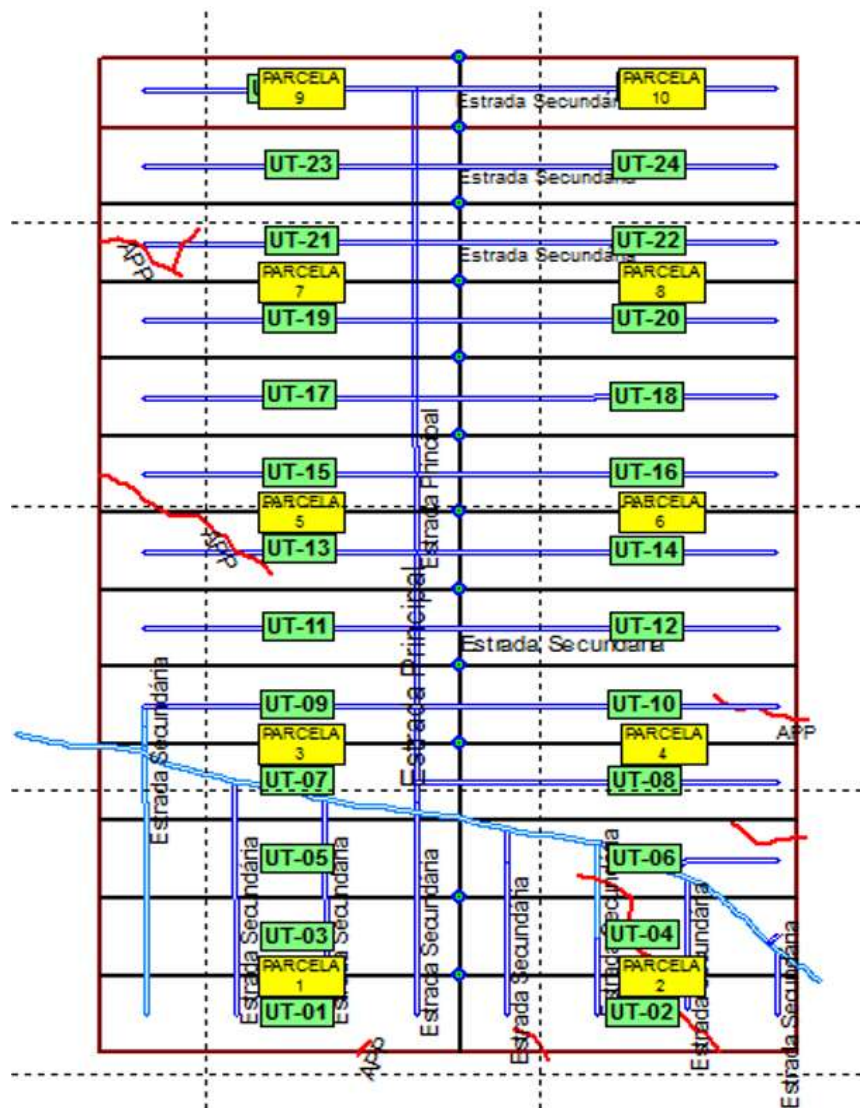


Image 21. Allocation of permanent plots within the MPA

4.2 PROCESS OF EXPLORATION

The first is the holding step directional cutting of trees, in which the commercial trees selected first pass through a hollow test, to determine whether they have a good exploitation in industry, and can be cut down. Due to the short time to do the check, it was only possible to follow two trees cuts. During the two cuts it was observed that the team had personal protective equipment (PPE).

Before cutting, the hollow test was performed and made the opening of escape routes needed to ensure the safety of staff tips. In the case of tree # 186 of UT 6, in which there was monitoring of the tips, the tree had only hollow at the base (Figure 22). After vine cutting is done, if it exists in the tree, to avoid unnecessary loss of other trees. After cleaning, the operator makes the chain saw tips directed tree using cutting techniques.





Image 22. Process tips forestry.

(A) cut vines; (B) hollow of the test; (C) cleaning the base of the tree; (D) cutting mouth to fall direction; (E) cutting the tree; (F) drop the tree; (G and H) tree nameplate placing the stump; (I) identifying the number plate with tree and UT; (J) Cut planning map with falling direction and number of trees to be cut.

After tipping numerical identification is made on the log as described in the plate placed on the stump. The trunk is divided into smaller logs when necessary (tracing).

During the process of tips, plates are left in informing road in appropriate distance where forestry operations are taking place (Image 23).



Image 23. Board informing the forestry operation

I Couldn't follow all the process of dragging logs to the logging site and the central courtyard, because these activities was stopped as a result of the heavy rain that is taking place on site. Thus, the trees cut in some UTs, still remain in the drop site (Figure 24).



Image 24. Stubs of Ipe wood on harvest site

UTs on 25 and 26 since there was dragging logs to the storage yard and some logs to the central courtyard. Thus, the tracks can be seen drag and check that there are no bare soil, which shows that there were many trips to the skidder dragging logs (Image 25).



Image 25. Tracks drag

It was also found that the timber were ipe the central patio, and in possession of the tree and the number of UT was stumps up to the respective timber (Image 26 and 27). stumps were observed in various UTs been explored (Image 28).





Image 26. Identification of the central log yard and the stump. UT 25, Planta 118.



Image 27. Identification of the central log yard and the stump. UT 26, Planta 204.

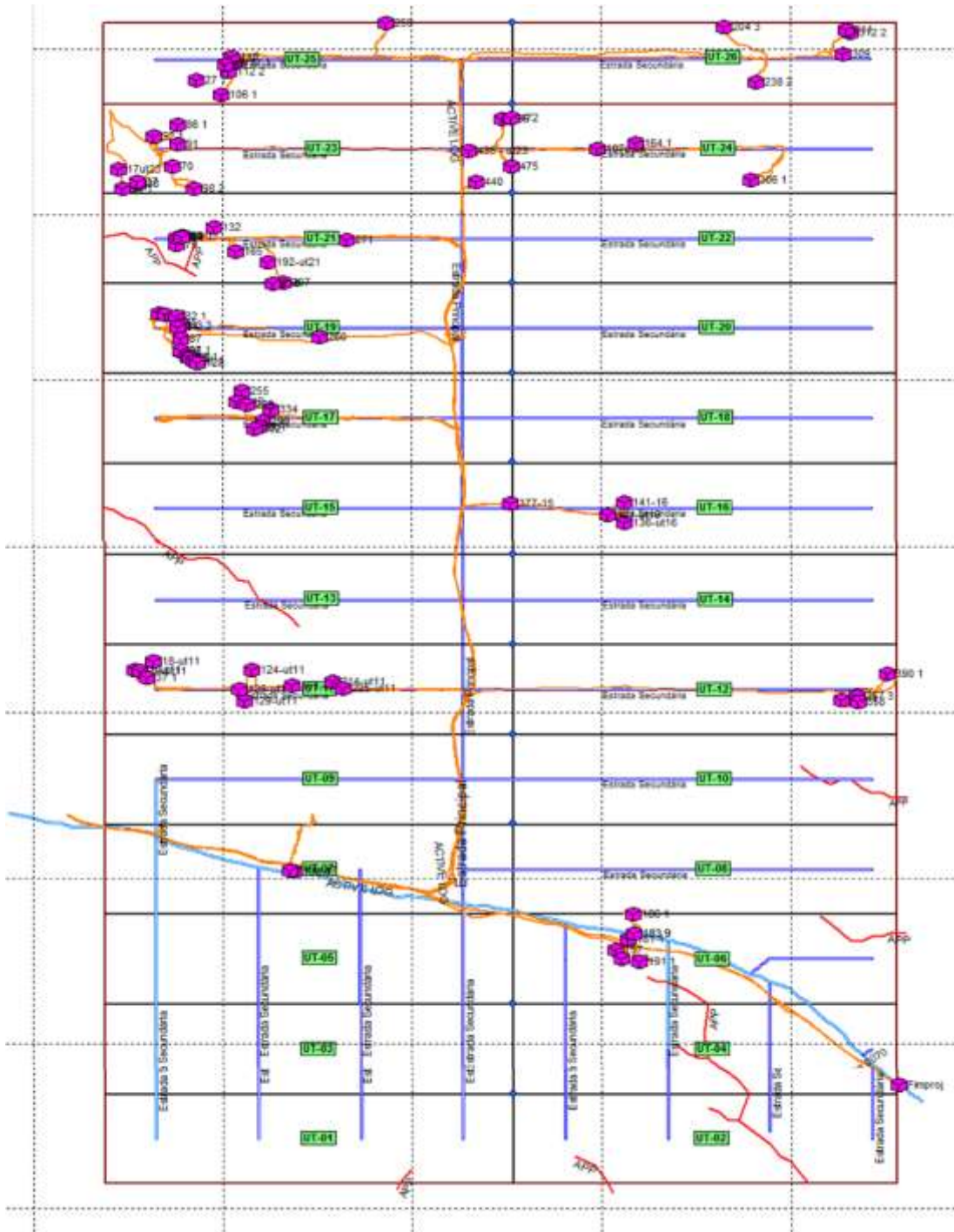


Image 28. Path traversed during the tour and IPE trees checked.

4.3 INFRASTRUCTURE CAMP

The camp is located outside the forest and distant management area of streams (Image 29). It has adequate infrastructure for housing of workers in forest management (Image 30).

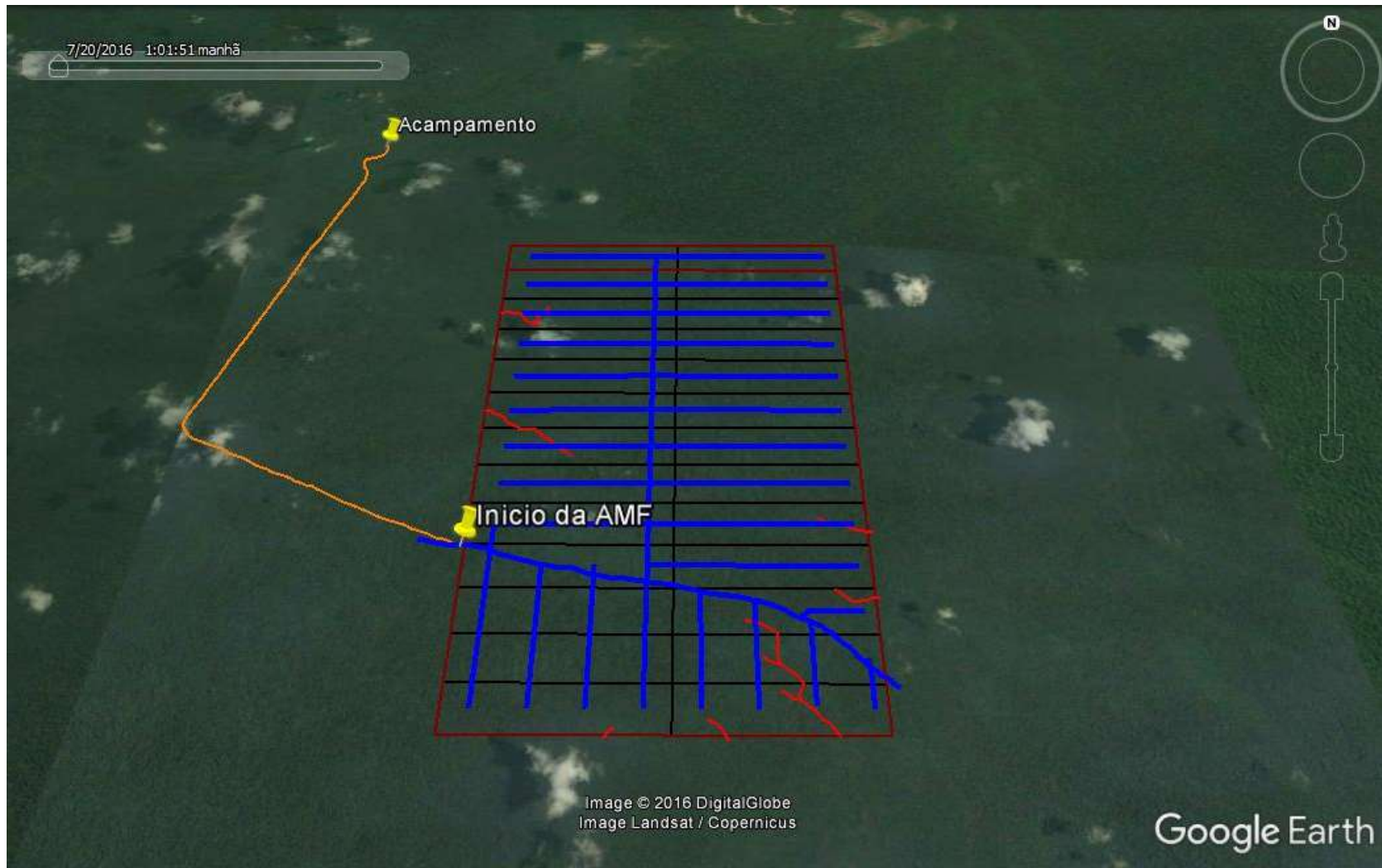


Image 29. camp location in relation to forest management



Image 30 camping

4.4 PORT

As Jairo information, responsible for forest management in the Frango D'água forest management plan, the Operating License of Porto AS Agroforestry LTDA.-EPP (LO No. 017/2016) for the transfer of harvested timber has been released by the Juruti s Environmental agency (SEMMA) (Image 31).



Image 31. Identification of the Operating License of Porto AS Agroforestry Ltda. - EPP

5. CONCLUSION

In general, forest management in Frango D'água farm is being implemented in accordance with the current legislation. However, it was observed that some pre-exploration activities were not performed correctly, such as forest inventory, where the circumference values (CAP) of trees were overestimated and not measured, and are not in accordance with the inventory data approved by Semas . Another activity was the maintenance of roads, since, to be used during the rainy season should be lined with gravel or laterite, however, the maintenance was initiated after the onset of heavy rain period.

The month of December in the region was of extreme rainfall, resulting in roads with limited access only to trucks. Because of the poor condition of trafficability of roads, activities of drag and transport of logs stood still. At the time of the visit, the only activity that occurred was the cutting of trees, however, the logs remain in the place of slaughter. It takes three days of sunshine so that the activities of drag and transport are initiated, but so far has not happened.

Based on what has been observed in the field, we make the following recommendations:

1. Because the values of the tree diameter are overestimated, the total residual volume will be released for operation (ipe 9295.9089 m³), because, besides the high diameter values (observed in the field) has an estimated height and the residue exploitation. Therefore, it is recommended to return to the competent body the residual volume of credits that have not been explored as Article 37 § 2 of Normative Instruction SEMA 05, September 10, 2015.;
2. The transport of round wood of ipe can only start when the team to the traceability of these logs are in the field;
3. The truck will transport the timber ipe must first be identified to facilitate tracking;
4. You will need to return to the Frango D'água forest farm after it runs 90% of ipe exploration, to finish Due Diligence.

ACTIVITY REPORT

Stage II - IPE TRACEABILITY PROJECT (Tabebuia
serratifolia) ARISING OUT OF SUSTAINABLE FOREST
MANAGEMENT PLAN on *Frango D'égua Farm* in JURUTI

Reure Pinheiro Macena

Uniconsult

Belém-PA

January / 2017

Stage II - IPE TRACEABILITY PROJECT (Tabebuia serratifolia) ARISING OUT
OF SUSTAINABLE FOREST MANAGEMENT PLAN IN CHICKEN FARM
D'AGUA NO JURUTI-PA MUNICIPALITY

1. GENERAL INFORMATION

1.1 contracting company data

Company Name: DITTORA WOODS LTDA - ME

Trade Name: DITTORA WOODS

CNPJ: 17459582 / 0001-71

State Registration: 15397108-8

Town: BELÉM, PA

1.2 Wood origin data

Owner: Sergio EVANGELHARD BERNARDES AND OTHER

Holder: SÉRGIO EVANGELHARD BERNARDES

Property: FRANGO D'ÁGUA FARM

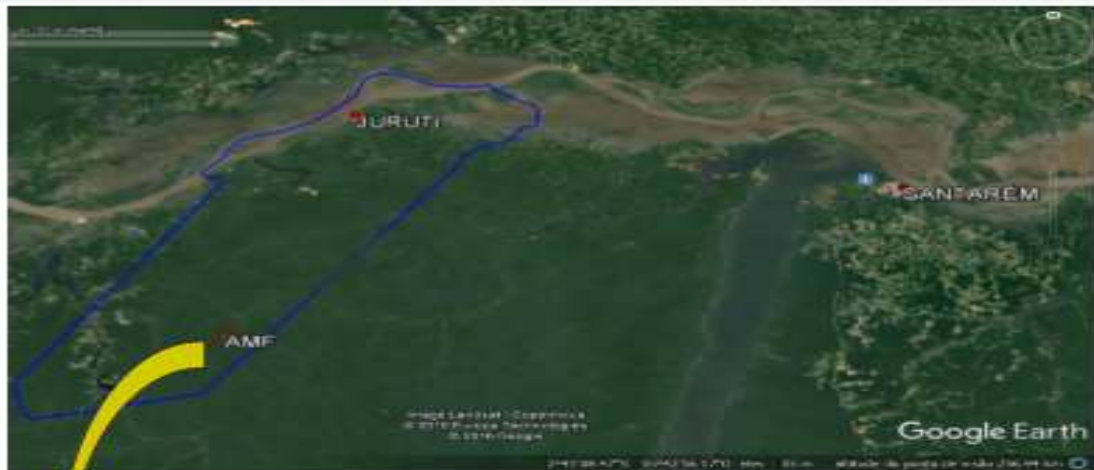
Town: JURUTI-PA No. LAR: 12384/2015

No. Autef: 272935/2016

Total area of property: 2499.8378 ha

authorized area: 2462.2688 ha

Geographic coordinates: DATUM WGS84 - 56°18'14,68 "W and 03°05'56,88" S



municipality for the location Juruti and farm Chicken D'water, forest management area

1.3 Data of the performing company

Company Name: UNIFLORESTA CONSULT- environmental consulting

Trade Name: Uniconsult

CNPJ: 21497446 / 0001-43

Town: BETHLEHEM, PA

SUMMARY 1-

The present work, it is a second step in a chain of custody tracking of timber known as *T. serratifolia* (ipe) whose volumetric out of 868 m³ logs come from a forest management plan and intended Dittora timber. The study contains accurate data that take into account all related documentation marketing steps of this wood, from extraction to the arrival in the log yard of the contracting company. Both the source and the destination as well as the paths made by the vehicles were harvested. It was recorded by material evidence, the source with the use of images with geographic coordinates. It was identified in a transparent manner, all vehicles used to transport wood, this work object, registered, of drivers and vehicles documents through photos with geographic coordinates. And registered the departure and arrival at the port of shipment and port of destination. It is proved also the route of all transport, used in the marketing of timber from its origin to its destination (contractor yard). The evidence is given through photos with coordinates, geo-referenced routes, obtained with the application of the aid UniTracking Mobile, developed by Unifloresta in partnership with Jambu Technology company in addition to the additional field of spreadsheet use, and this step during the period of 14 to 31 January, for the transportation of the first batch of management plan for the logs from the Frango D'água. It is proved also the route of all transport, used in the marketing of timber from its origin to its destination (contractor yard). The evidence is given through photos with coordinates, geo-referenced routes, obtained with the application of the aid UniTracking Mobile, developed by Unifloresta in partnership with Jambu Technology company in addition to the additional field of spreadsheet use, and this step during the period of 14 to 31 January, for the transportation of the first batch of management plan for the logs from the Frango D'água. It is proved also the route of all transport, used in the marketing of timber from its origin to its destination (contractor yard). The evidence is given through photos with coordinates, geo-referenced routes, obtained with the application of the aid UniTracking Mobile, developed by Unifloresta in partnership with Jambu Technology company in addition to the additional field of spreadsheet use, and

this step during the period of 14 to 31 January, for the transportation of the first batch of management plan for the logs from the Frango D'água Farm

2- INTRODUCTION

The company Dittora Woods, in order to buy all individuals of *Tabebuia serratifolia* (Vahl) Nichols (ipe) of the Plan for Sustainable Forest Management approved by the state Department of Environment and Suatentabilidade (SEMAS) in Frango D'água in Juruti, hired Uniconsult company to carry out the monitoring of shipments in a pioneering traceability project, through the use of an application developed by UniConsult® in partnership with Jambu Tecnologia®.

The timber chain of custody is the process where the tree is identified by a numbered plate in the act of forest inventory to 100% after being slaughtered this number is passed on to the logs subsequently the final product receives an identification as packet which contains the list of all trees that made up that package, this procedure allows the traceability of the product from its origin to final destination

Traceability and monitoring the chain of custody is something of utmost importance when dealing with the creation of material evidence relating to the origin of the wood. To do this, the monitoring of individuals from their extraction until arrival at the final destination of the wood logs should be recorded in its entirety, taking into account all the documentation generated during the transport steps (loading and unloading), showing transparency and legality the stages and

their respective actors, ensuring that all individuals transported in fact left the sustainable forest management plan approved by SEMAS without changes to planned routes, unadulterated vehicles, documents or changing vessels during all these paths. Thus,

3- OBJECTIVES

3.1- General

- Carry out the 2nd stage of traceability throughout the chain of custody of wood Ipe sustainable forest management plan for the *Frango d'agua Farm*

3.2 specific

- Carry out the selection of trucks that meet the requirements for records in traceability application
- Attach QR Codes, the trees with the chain of custody in order and slaughtered in the central courtyard
- Using Mobile APP 'FolloWood' application to track ipe logs taken from the sustainable forest management plan.
- Tabulate the data and routes images obtained by referencing the application to their respective individually shipments.

4- METHODS

4.1- SELECTION OF TRUCKS FOR LOADING

For the selection of trucks a survey was conducted on the quantity of trucks in the management plan, able to make the loading of logs, as well as requirements regarding transport capacity of the trucks has been used as a condition, the documentation of drivers of vehicles and auxiliary bodies, all documents should be legible so that they could be used for the transport of timber species under that project.



Front of the vehicle - Truck Axor M.Benz



Side of the vehicle Loaded with logs Ipe

Requirements;

- Documents truck
- Documents Auxiliary truck
- Document vehicle driver
- Vehicle plates in order and readable



Document Vehicle - Truck



Document auxiliary truck



Document vehicle driver



license plate

Such charges for the IPE were related only to trucks that had at the time of the logs joined in SISFLORA 2.0 system, license plate of the truck, the auxiliary body, driver and vehicle documents.

4.2- IDENTIFICATION OF LOGS

Each log present in the central courtyard had notes regarding the supply chain, such as; UT, the individual Number, Species code in SISFLORA - SEMAS System (Marketing and Transport of Forest Products), and Volume (Geometric and Frankon). This information is needed to perform the registration on SISFLORA and release the documents of transportation (GF's).

Upon release of the tabs, and separation of the individually logs for each load were affixed on each log, one (01) QR Code, numbered sequentially, each handle these was associated with a log, with appropriately listed Custodies in spreadsheets field, met at the time of display of QR codes.



Data recording of the log and the QR Code attached to it



Conference of QR Code

4.3- APPLICATION USING “FolloWood app”

The Unitracking application, is responsible for collecting data for the transport and registration documents proving the origin and characteristics of the logs to be transported individually when refers to loading.

The application works based on the transport stages of the central courtyard logs to the sawmill destination. Data collection, to be included in the application, follow the following steps;

4.3.1- shipment of logs on trucks

I - Linking the Transportation Guide

For each shipment performed a Guide Logs Transport (GF) by semas system (SISFLORA) is generated as Normative Instruction 12/2006. The starting point of the tracking process the shipped logs, is the identification of the Transport Guide (GF), for the charging to be scanned, performed by an operator of UniConsult®. To identify the GF, we used the QR Code or this bar code on the GF and from that identification, were made photographic records and trace route.

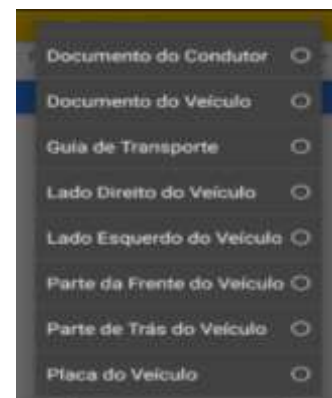


Transport Guide - Code bars and QR code present in GF's used for indexing in UniTracking

II - Marco Boarding

The next step to be started, after binding to the GF, is the creation of Marco Boarding, which were tied 08 (Eight) photographic records of the following items;

- Document Vehicle
- Document conductor
- Transportation Guide
- Front of Vehicle
- Left Side of the Vehicle
- Right-Side Vehicle
- Rear Vehicle
- license plate



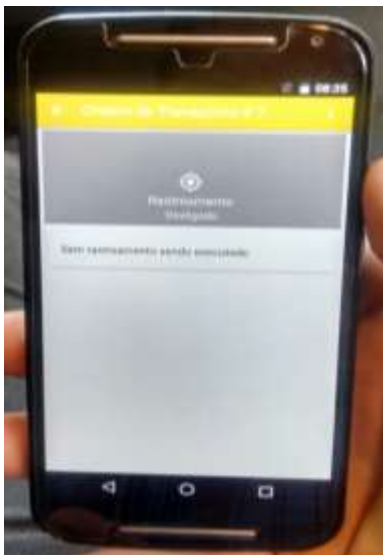
The boarding step is performed by a distinct profile of who will carry out the remaining steps; Shipment Profile

4.3.2- Tracking Step of Trucks

This step was carried out in other mobile device, since this step is obtained around the truck route (trace) from the central courtyard to the port. However, this mobile device, was linked again GF related to each load, but without the need to redo the photographic records. For this new stage has created a new profile (screening profile) for each truck load, and at this stage the use of three mobile devices, with three distinct user profiles.

Once bound to the GF, was initiated the landmark shipment.

After the creation of Spots, was started to TRACE, which will be constant until the arrival to the port, where a UniConsult® operator performs the completion of this step.



Screenshot of UniTracking- tracking Off



Screenshot of UniTracking - Tracking On



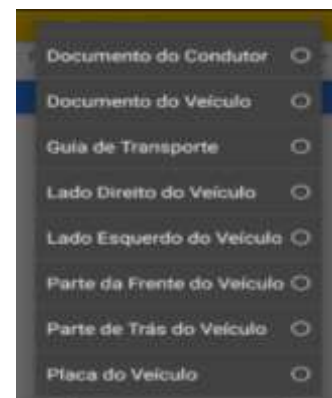
Excerpt from the tracking of the central courtyard trucks to the port of embarkation

4.3.3- Step Landing of Trucks

This step is also carried out linking the GF, as done in the previous steps, since at this stage another profile is responsible for continuity; Profile Landing, made in other mobile device by the same operator that realizes the completion of the screening process.

After the link to the GF, it initiated the landing of March, which will link 08 (Eight) photographic records of the following items;

- Document Vehicle
- Document conductor
- Transportation Guide
- Front of Vehicle
- Left Side of the Vehicle
- Right-Side Vehicle
- Rear Vehicle
- license plate



the MWM Rio screenshot

The landing stage is performed by a distinct profile of which were used in the previous steps; Landing profile.

4.3.4- Boarding Step Ferry

With the completion of loads carried by trucks, which were a total of 24 (twenty four) loads, as the numbers of transport guides for loading described in the table below, which were stored in different ways in two batches;

- Lot I - 500 m³ of IPE on the estimated load
- Lot II - 368 m³ Ipe referring to over charging

After the unloading of the last truck, early gave up the loading of the ferry with Ipe logs totaling 868 m³.

CAR GF No. 01- 102067	CAR GF No. 13- 103848
CAR GF No. 02- 102122	CAR GF No. 14- 103885
CAR GF No. 03- 102140	CAR GF No. 15- 103917
CAR GF No. 04- 102216	CAR GF No. 16- 103945
CAR GF No. 05- 102219	CAR GF No. 17- 104058
CAR GF No. 06- 102274	CAR GF No. 18- 104150
CAR GF No. 07- 102363	CAR GF No. 19- 104171
CAR GF No. 08- 102379	CAR GF No. 20- 104240
CAR GF No. 09- 102474	CAR GF No. 21- 104257
CAR 10- GF n ° 102542	CAR GF No. 22- 104316
CAR GF No. 11- 102578	CAR GF No. 23- 104350
CAR GF No. 12- 103450	CAR GF No. 24- 104622

Tax guides relating to 24 ipe shipments DVPF: 837,546

With the complete ferry, had been initiated Marco Boarding the ferry, and this step in the Application UniConsult®, linked to it 24 guides relating to transport all shipments of trucks with Ipe, with the use of their respective QR Codes or code Bars.

Being subsequently withdrawn the corresponding images to tug documents, Ferry, Commander, shipment authorization from the Port Authority and the GF's as pictures below.



Photographic record of Ferry Maracana charged lamb

Photo: Operator Valdo

4.3.5 - Tracking Step Ferry

For the screening of the logs from the Juruti port to the port of Icoaraci, we used other mobile device, with profile Screening. This step was also carried out the linkage of 24 GF's, but without the need for photographic records.



Stretch traveled by ferry bound for Maracana Icoaraci-Belém

After the link to the GF, was initiated the landmark pickup and was initialized the tracking, which was constant until the arrival at the port of MAJONAV in Icoaraci - BELEM - PA. In this final port, one UniConsult® operator realized the completion of tracking, and order this step.



Harbor location Empresa Majonave in Icoaraci

4.3.6 - Step Landing Ferry

Upon arrival Ferry Maracanã, in the port of Icoaraci, an operator will perform the completion of the screening stage and collect the device, initiating the landing landmark, performing the steps of annexation waybills and collection of photographic records, with comparison purposes and investigate any possible change this document. After obtaining the records provided, the ferry will be released for unloading logs and completion of tracking this loading step.

- Lot I - 500 m³ of IPE on the estimated load
- Lot II - 368 m³ Ipe related to excess loading properly demarcated by blue bands.



Ipe logs over the estimated loaded in Maracanã ferry Lamb Photo: Operator Valdo

4.5- Data analyzis

With the completion of the steps of loading and traces, data were collected for the preparation of a document for the transport of that batch of logs Ipe, aiming to cover all the possible loopholes that would allow documentary fraud, locomotion of the logs or individuals Ipe between the output of the management plan in Juruti and the arrival of the logs in Icoaraci containing photographic records and routes of trucks and ferry charges.

The tab was given individually for each truck loading and then generally on the ferry to determine the quantity of logs in the sum of 24 shipments and who were present at the time of arrival in port Icoaraci. For this action, it took into account the completed field sheets and recorded during the truck loading step, along with their delivery notes of each charge and the conference field completed worksheet after confirmation of these logs on the ferry on arrival the same to the port, adding a final volume of 868 cubic meters of ipe, relating to a total of 396 logs, given the fact that one of the logs fell off the ferry on the river Mamuru - Juruti / PA, and the rescue occurred when there are improvements in weather conditions in the region.

