



Independent Forest Monitoring Pilot Project in Nicaragua

Mission Report No. 008

Mission of the Independent Monitor

Annual Operational Plan for Private Conifer Forest

Location:	Las Dantas
Annual Operational Plan 2006-2007:	Authorisation no. 1307 P409 -182
Produced by:	Nohemigdio Tercero
Forest Management General Plan:	Authorisation no. 1307 P409
Owner:	INFORESA/MADESSA
Municipality:	Murra, Nueva Segovia

Mission dates: 29-30 January 2007

Report date: 9 February 2007

Contents

1. Executive summary	1
2. Composition of the monitoring team	2
3. Assistance provided to the mission	2
4. Constraints	2
5. Description of the fieldwork	3
6. Mission results	3
6.1 General description of the Las Dantas FMGP	3
6.2 Main findings	3
6.2.1 Approval of 2006-2007 AOP.....	3
6.2.2 Log ponds	4
6.2.3 Logging roads	4
6.2.4 Post-harvesting activities	5
6.2.5 The felling of trees in protection areas	6
6.2.6 Documentation for Las Dantas estate.....	7
7. Conclusions and recommendations	8
8. Annexes	10
Annex 1: Las Dantas FMGP Forest Map	10
Annex 2: Las Dantas FMGP Authorisation	10
Annex 3: Authorisation of 2006-2007 AOP	11
Annex 4: 2006-2007 Forest Harvesting Permit	12

1. Executive summary

Within the framework of the Agreement signed by INAFOR¹ and Global Witness in August 2006 for the implementation of an Independent Forest Monitoring Pilot Project in Nicaragua, the Global Witness technical team (known as the Independent Monitor), together with the Forest Regent Nohemigdio Tercero, carried out a monitoring mission on 29-30 January 2007 in the area of the Forest Management General Plan (FMGP) for conifer forest at Las Dantas, the property of the company INFORESA / MADESSA². This included areas being harvested under the 2006-2007 Annual Operational Plan (AOP)³, located in the community of Las Dantas in Murra Municipality, Nueva Segovia Department.

The FMGP was initially approved by the Ministry of the Environment and Natural Resources (MARENA) in 1997. The Plan was reviewed in 2000 by INAFOR and authorised for a further period of 10 years until 2009.

The activities carried out during the monitoring mission focused on checking the perimeter of the FMGP area and the sectors being harvested as well as gathering information on the felling of trees in a zone marked as a protection area on the FMGP forest map. The FMGP and AOP documentation was subsequently reviewed.

After concluding the fieldwork and reviewing the relevant documentation, the Independent Monitor presents the following conclusions:

1. A review of field data and documentation for the approval of the 2006-2007 AOP of the Las Dantas FMGP showed that such activities were not conducted in compliance with the rigorous standards of the municipal forest authority as the following elements were not provided:
 - A map showing the location of the stands or sectors to be harvested, provided on an appropriate printed map with geographical coordinates.
 - Map of the infrastructure to be constructed or established: logging roads, filters, log ponds.
 - Marking out the FMGP area.
2. Extraction and harvesting activities in the sectors have not complied with the technical regulations relating to:
 - Setting up log ponds.
 - Removing the waste from harvested trees.
 - Logging roads.
3. Six trees were felled in the protection area around water courses in sector 15.
4. The FMGP documentation indicates that the Plan covers an area of 267 hectares. However, a calculation of the area from the reference points (geographical coordinates) gives an estimated area of 328 hectares.

¹ Instituto Nacional Forestal – *Nicaraguan Forest Authority*

² Authorisation 1307P409

³ Approval 1307P409-182

5. The property documents included in the FMGP documentation indicate an area of 145 hectares, while the managed area is actually 267 hectares.

On the basis of these conclusions, the following recommendations are made:

1. INAFOR should require INFORESA / MADESSA to update and correct the FMGP Forest Map, taking into account the missing items described above.
2. For INFORESA / MADESSA to continue its logging operations, the prevailing technical regulations should be applied when carrying out harvesting and timber extraction activities.
3. INAFOR should conduct effective monitoring of the implementation of the 2006-2007 AOP for the Las Dantas FMGP, as established by the prevailing forest legislation, and should apply any corrective measures that are appropriate.
4. INAFOR should inform the environmental and municipal authorities of any illegal logging occurring inside the protection area for water sources.
5. INFORESA / MADESSA should update information on the area of the Las Dantas property in order to clarify legal considerations concerning the said property.

2. Composition of the monitoring team

The monitoring team comprised the following persons:

- Nohemigdio Tercero, INFORESSA / MADESSA Forest Regent.
- Arturo Avila, Independent Forest Monitoring Technical Staff, Global Witness.
- César Zelaya, Independent Forest Monitoring Technical Staff, Global Witness.

3. Assistance provided to the mission

This forest monitoring mission was made possible and assisted by the participation and collaboration of INAFOR and the Forest Regents in relation to the following matters:

- INAFOR (Jícaro Municipal Delegation, Murra) made documentation and information available on the Forest Management General Plan for Las Dantas.
- Nohemigdio Tercero, Forest Regent and FMGP Manager, collaborated with the mission.

4. Constraints

No restrictions of any type were encountered in carrying out this mission.

5. Description of the fieldwork

Day 1:

- Checking the perimeter and marking out of the FMGP area.
- Recording geographical points (Universal Transverse Mercator - UTM) using GPS⁴ equipment.

Day 2:

- Checking the geographical location of points 9, 10, 11, 12, 13, 14 and 15 of the FMGP.
- A partial marking out of the protection area located in sector 15.
- Recording the diameter and geographical location of felled trees (stumps) inside and outside the protection area in sector 15.
- Inspection and geographical location of log ponds in sectors 9, 15 and 20.

6. Mission results

6.1 General description of the Las Dantas FMGP

Las Dantas is located in the district of the same name, in the municipality of Murra, Nueva Segovia department. The Las Dantas Conifer FMGP was initially approved by MARENA in 1997. This was subsequently revised and authorised by INAFOR in 2000 for a period of 10 years until 2009. The authorisation number is 1307P409.

Official documentation shows that the FMGP area is 267 hectares with a total of 20 sectors populated by pine (*Pinus* sp.) and to a lesser extent oak (*Quercus* sp.). There are also some areas with associations with previous species. A 170-hectare pine plantation was established in 1997-98. This is managed and protected by the company INFORESSA / MADESSA.

In the period 2006 – 2007, INAFOR approved an Annual Operational Plan (AOP)⁵ for the harvesting of 699 m³ of pine timber, relating to a total of 725 harvestable trees over an area of 177.9 hectares. The sectors subject to harvesting are numbers 1, 3, 4, 7, 8, 9, 15, 16 and 20. The processes applied here involve the felling of residual trees and final felling leaving seedlings. The felling programme is set at 10 years with three felling periods. The managed area is currently in its final felling period.

All the approval documentation relating to the FMGP and AOP is provided in annexes.

6.2 Main findings

6.2.1 Approval of 2006-2007 AOP

The approval of the AOP⁶ is supported by a verification of the documentation presented by the logging company and checks in the field of the managed area by INAFOR.

⁴ Global Positioning System

⁵ Approval number 1307P409-182

⁶ Registration number 1307P409-182

However, the Independent Monitor, undertaking procedures similar to those conducted by the forest authority, detected a lack of rigour in the approval of the AOP in relation to the following issues:

- The location of the stands or sectors to be harvested on the relevant printed map (geographical coordinates).
- Map showing the infrastructure to be constructed.

In the field, there were failings with regard to:

- Marking out the FMGP.
- Appropriate siting of log ponds.
- Indicating the corners of the perimeter area.

6.2.2 Log ponds

During the inspection of the sectors under management, it was noted that the log ponds did not comply with the prior planning in terms of their preparation and establishment⁷.

This was the case in sector 15 where two log ponds had been established within 200 metres of each other and only 100 metres from a protection area (see image 1). The proliferation of log ponds and the lack of planning could cause soil erosion and landslips in areas where earth movements are carried out. The photograph below shows a log pond established in sector 15.

Photograph 1



6.2.3 Logging roads

The logging roads in the sectors subject to harvesting are mainly primary and secondary roads. However, the technical specifications for the construction of forest roads have not been observed in respect of these roads.⁸

Considering that the majority of the area being harvested is on hillsides with slopes exceeding 20%, and with predominantly sandy soil, it was evident that constructing the roads had displaced significant quantities of materials which were deposited in the lower-lying areas of the sectors. Furthermore, it was noted that necessary engineering

⁷ The log ponds were situated near to the trees to be harvested rather than at a central site in the sector where all the timber could be gathered. This practice meant that the number of log ponds could not be forecast before harvesting and as such contravenes the prevailing regulations.

⁸ NTON 4.1.4

works had not been conducted in some areas, leading to the collapse of roads and requirement for continuous reconstruction with negative effects on the land and areas adjacent to the roads.

During the check of the FMGP area perimeter, a severely damaged filter was observed in a water source in the north-eastern sector. The filter was blocking the passage of people and vehicles. A suitable bridge should be built at this site.

The following photographs show the condition of the said filter.

Photograph 2



Photograph 3



6.2.4 Post-harvesting activities

The main activity of the post-harvesting stage described by the AOP is the removal of harvesting waste. However, this activity has not been conducted appropriately as it is clear that there are very many branches and small trunks discarded around the harvested sectors. This represents a significant fire risk.

According to the Forest Regent, the waste would be removed when the sectors are cleaned or "weeded". However it is recommended that the waste should be piled up in the meantime; the best solution would be to remove the waste from the harvested areas.

The photographs below show harvest waste that has not been properly managed.

Photograph 4



Photograph 5



6.2.5 The felling of trees in protection areas

The Forest Map used as a reference document for planning forest management activities shows that there are two water source protection areas in the FMGP area, one in sector 7 and the other in sector 15 (see Annex 1: Forest Map).

The Independent Monitor noted logging in the protection area in sector 15. In total 13 stumps were recorded. Of these, six were inside and seven outside the said area.

The following table provides inventory data for the six trees harvested inside the protection area. The stump number, diameter in centimetres and UTM coordinates are given.

Table no. 1 Inventory of illegally logged trees

Sector 15 Protection Area			
No.	Stump diameter in cm.	Coordinates (UTM)	
	Diameter	X	Y
1	44	604474	1522418
2	30	604471	1522416
3	40	604468	1522424
4	53	604477	1522407
5	53	604493	1522408
6	53	604446	1522422

Note: The volume of timber felled is calculated by multiplying the number of trees by the average volume⁹ of each. The result obtained was 5.76 cubic metres of timber.

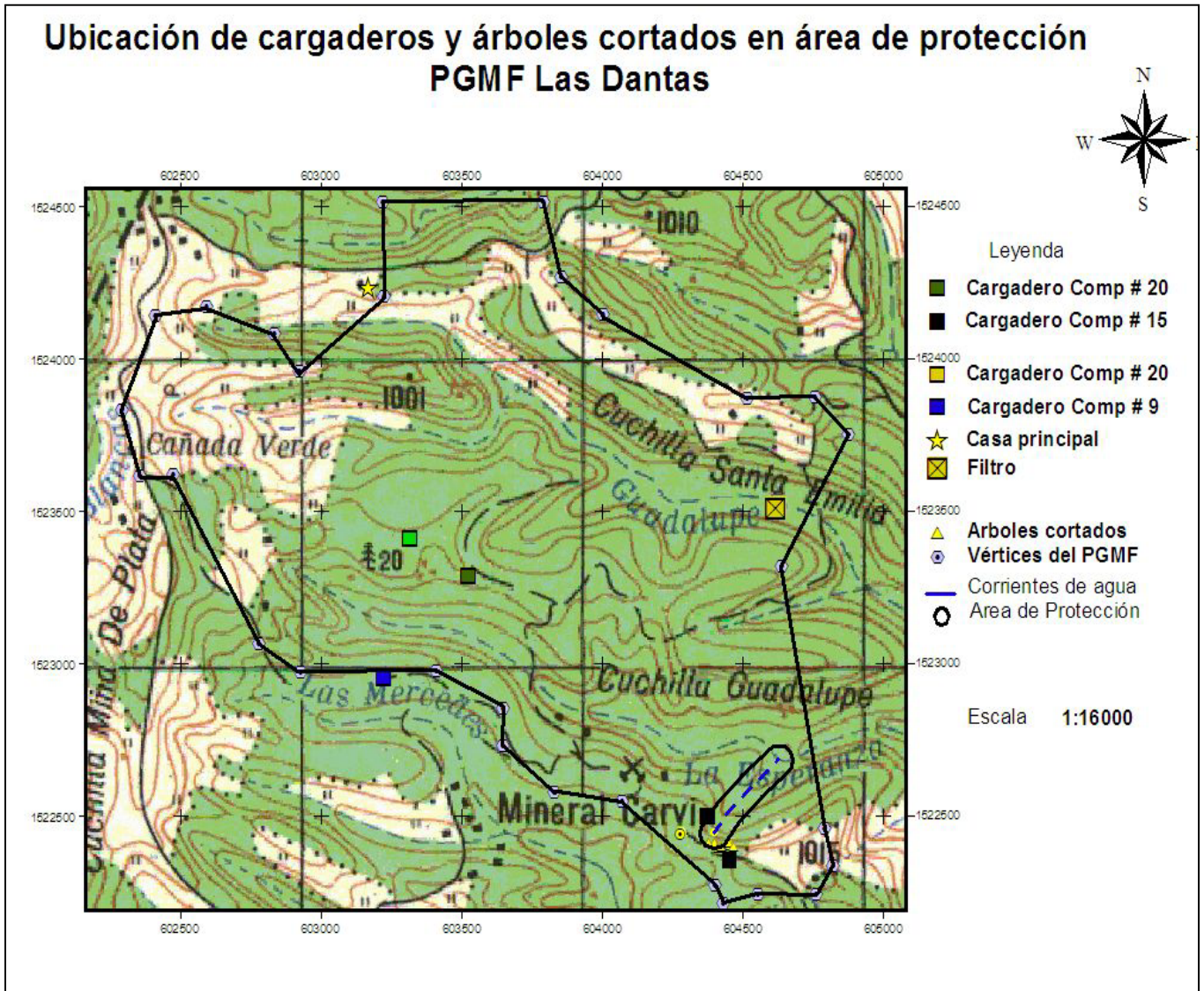
Calculation formula:

$$\text{trees harvested} \times \text{average volume per tree in m}^3 = \text{volume obtained}$$
$$6 \times 0.96 \text{ m}^3 = 5.76 \text{ m}^3$$

⁹ Data given in the Forestry Harvesting Permit issued by INAFOR.

The image below is a map of the FMGP area showing the location of the trees felled in the protection area.

Image 1



Source: FMGP documentation and field coordinates recorded by the Independent Monitor.

6.2.6 Documentation for Las Dantas estate

In reviewing the documentation for Las Dantas estate, the Independent Monitor discovered that the areas of the FMGP and the estate did not coincide. While the FMGP indicates an area of 267 hectares, the map drawn up from the geographical coordinates gives an estimated area of 328 hectares.

Similarly, there are contradictions with regard to the ownership documents. The documentation includes purchase deeds amounting to 145 hectares, a much smaller area than that indicated in the FMGP which, as previously described, amounts to 267 hectares.

7. Conclusions and recommendations

The Independent Monitor, after analysing and processing the documentary information of the FMGP and AOP, as well as data obtained from the monitoring mission in the area, offers the following conclusions:

1. A review of field data and documentation for the approval of the 2006-2007 AOP of the Las Dantas FMGP showed that such activities were not conducted in compliance with the rigorous standards of the municipal forest authority as the following elements were not provided:
 - A map showing the location of the stands or sectors to be harvested, provided on the relevant printed map with geographical coordinates.
 - Map of the infrastructure to be constructed or established: logging roads, filters, log ponds.
 - Marking out the FMGP.
2. Extraction and harvesting activities in the sectors have not complied with all the technical regulations relating to:
 - Setting up log ponds.
 - Removing the waste from harvested trees.
 - Logging roads.
3. Six trees were felled in the protection area around water courses in sector 15.
4. The FMGP documentation indicates that the Plan covers an area of 267 hectares. However, a calculation of the area from the reference points (geographical coordinates) gives an estimated area of 328 hectares.
5. The property deeds included in the FMGP documentation indicates an area of 145 hectares, while the managed area is actually 267 hectares.

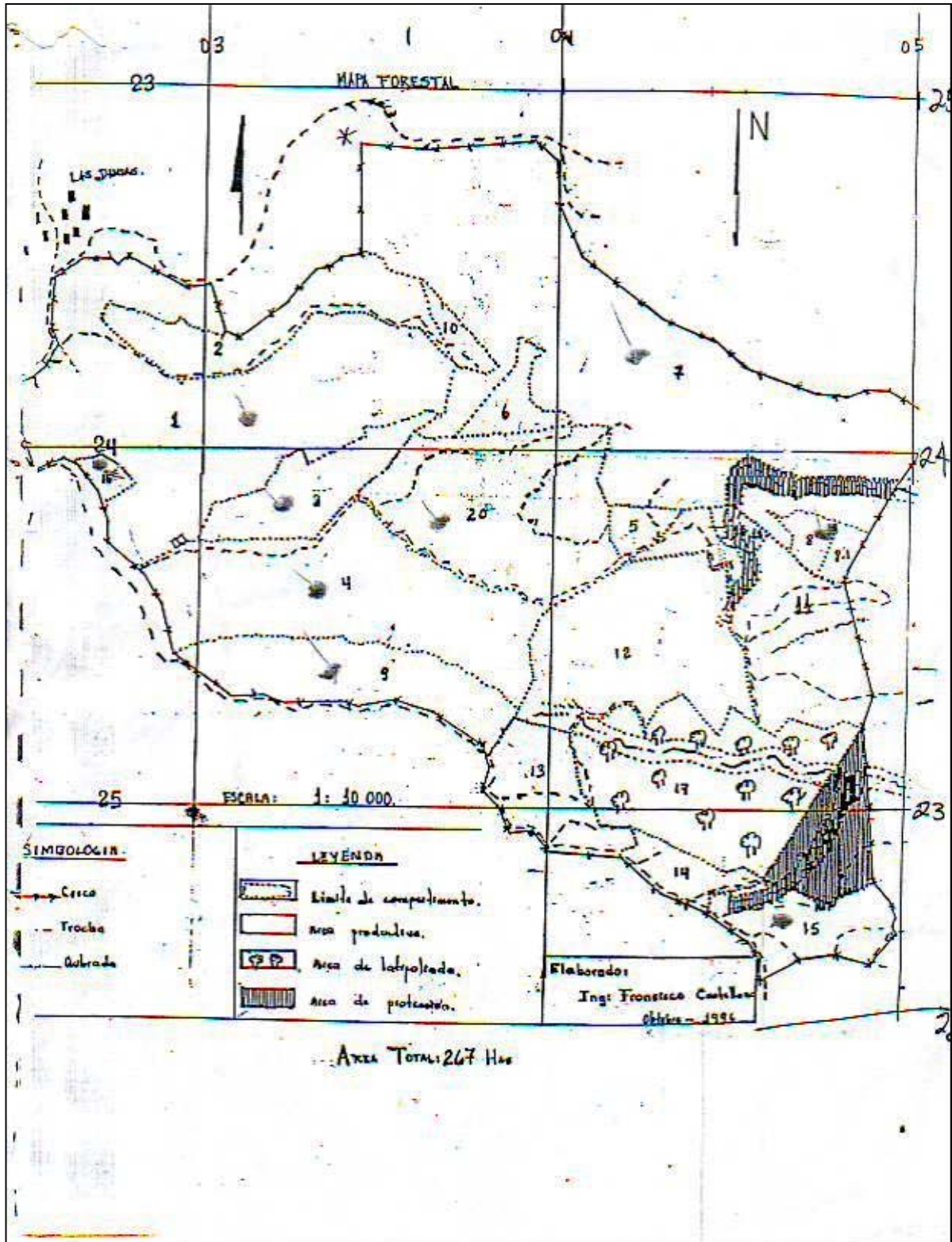
On the basis of these conclusions, the following recommendations are made:

1. INAFOR should require INFORESA / MADESSA to update and correct the FMGP Forest Map, taking into account the missing items described above.
2. For INFORESA / MADESSA to continue its logging operations, the prevailing technical regulations should be applied when carrying out harvesting and timber extraction activities.




3. INAFOR should conduct effective monitoring of the implementation of the 2006-2007 AOP for the Las Dantas FMGP, as established by the prevailing forest legislation, and should apply any corrective measures that are appropriate.
4. INAFOR should inform the environmental and municipal authorities of any illegal logging occurring inside the protection area for water sources.
6. INFORESA / MADESSA should update information on the area of the Las Dantas property in order to clarify legal considerations concerning the said property.

8. Annexes

Annex 1: Las Dantas FMGP Forest Map



Annex 3: Authorisation of 2006-2007 AOP

	
<p>GOBIERNO DE NICARAGUA INSTITUTO NACIONAL FORESTAL DELEGACION MUNICIPAL DE EL JICARO</p>	
<p>1307P409-182</p>	
<p>El Instituto Nacional Forestal (INAFOR) aprueba el <u>PLAN OPERATIVO ANUAL (POA)</u>, <u>Las Dantas</u> Por haber cumplido con los requisitos técnicos, legales y administrativos que para tal efecto se requieren al propietario: <u>INFORESA/MADESSA</u>, ubicado en el Departamento de <u>Nueva Segovia</u>, en el Municipio de <u>Murra</u> para que durante el periodo <u>2006-2007</u> realice operaciones de manejo sostenible al recurso forestal, en el sitio conocido como: <u>Las Dantas</u></p>	
<p>Dado en el municipio de El Jicaró a los <u>28</u> días del mes de <u>Noviembre</u> del año 2006</p>	
<p> Francisco J. Sirignator Delegado Municipal - El Jicaró INAFOR Jicaró, Murra, Quilali.</p>	

Annex 4: 2006-2007 Forest Harvesting Permit

REPUBLICA DE NICARAGUA INSTITUTO NACIONAL FORESTAL PERMISO DE APROVECHAMIENTO FORESTAL					
		0001130			
Datos Generales					
Beneficiario: <u>1307E409-182</u>			Número: _____		
Instituto Nacional Forestal otorga la presente autorización al señor (a): <u>INFORESA/MADESA</u>					
C.I.: <u>130395-9527</u> para que realice las actividades de Corte, Extracción y Transporte de árboles, de					
que ubicado en el sitio conocido como <u>Las Dantas</u> del municipio <u>MURRA</u>					
Departamento <u>Nueva Segovia</u>					
2.- Detalle del Permiso de Aprovechamiento Autorizado					
CODIGO	NOMBRE CIENTIFICO	NOMBRE COMÚN	TOTAL ARBOLES	VOLUMEN (M3)	VOLUMEN POR ARBOL
	<u>Pinus</u>	<u>pino ocote</u>	<u>725</u>	<u>699</u>	<u>0.964</u>
con este permiso se afectan los comp No. <u>1-3-4-7-8-9-15-16-20</u> solamente					
TOTAL APROBADO			725 arb	699 mts ³	
La autorización es Válida Hasta: <u>28/11/2007</u>					
en la Ciudad de <u>El Jicaro a los veintiocho</u> Días del Mes de <u>Noviembre</u> del <u>2006</u>					
Para transportar la madera debe hacerse con la guía de transporte de madera en rollo					
Datos del Regente					
Nombre: <u>NOHEMIGDIO TERCERO</u>					
Número de Registro: <u>130804023-0159</u>					
Copia Color Blanco para Beneficiario Copia Color Amarillo Insufre Municipal Copia Color Celeste Insufre Central Copia Color Rosado Insufre Distrital					
					
<small> **LAPSO CONTRATO DE VIC. S.A. 13/07/06-28/11/07 P.V. 01010409 APROVECHAMIENTO 0.1 28/07/06-28/11/07 28 M. DAL 001 AL 00280 0806 PVA FONORA, S.A. - MANAGUA - TEL: (505) 2223-0223 - FAX: (505) 2223-0223 </small>					