

**Report on field activities in the LaForeT Project in Ecuador  
in the time from Sept 2016 – August 2017**

(Richard FISCHER, Paul EGUIGUREN, Tatiana OJEDA, Fabian TAMAYO)

Quito, Ecuador, August 2017

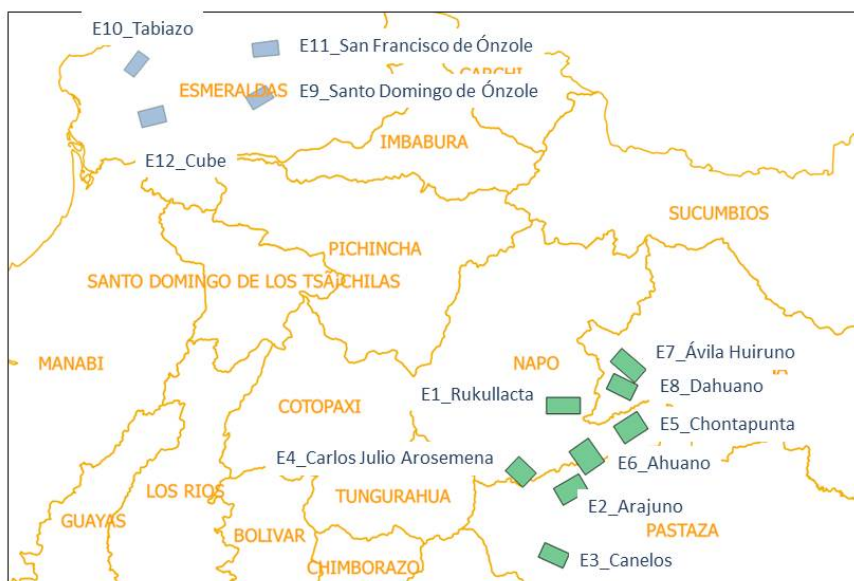
LaForeT ([www.la-foret.org](http://www.la-foret.org)) explores the impact of policy instruments on deforestation and reforestation in the Tropics. It is carried out by the Thünen Institute, Germany in collaboration with partners in Ecuador, the Philippines and Zambia.

### **1. Organisation**

In Ecuador, the field activities during reporting period were carried out under a Memorandum of Understanding between Thünen Institute (TI) and Universidad Estatal Amazónica (UEA), Puyo and a Memorandum of Understanding between Thünen Institute and Technical University Luis Vargas Torres (LVT), Esmeraldas. Preparation activities began in spring 2016. Final assessments will be continued until end of January 2018.

### **2. Project area**

The assessments were carried out in 12 landscapes, each of an approximate size of 100 km<sup>2</sup>. 8 landscapes are located in the Amazonia region in the provinces of Orellana, Napo and Pastaza. 4 landscapes are located in the province of Esmeraldas (Fig. 1). Half of the landscapes include larger protected areas (Socio Bosque/SNAP), the other half of the landscapes concentrate on landscapes with unrestricted access regimes.

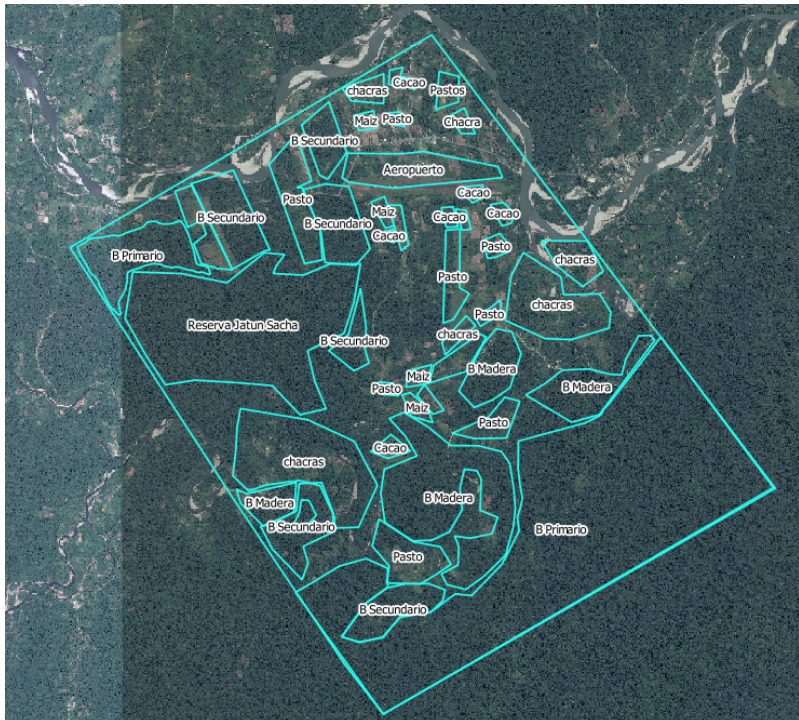


**Figure 1:** Landscapes in the LaForeT project in Ecuador

### **3. Data assessment**

#### **3.1 General landscape information and mapping**

Scoping visits were carried out in each landscape as first contact activities in order to gain an overview on biophysical and socio-economic conditions. They were followed by community workshops. In each landscape, one community workshop was held. To this workshop representatives from all communities within the landscapes were invited. In total 73 communities are involved in the project (Tab. 2). In the workshops, the project was presented and general information was collected. The workshops were attended by on average 16 persons from the communities and the field teams (Tab. 2). A mapping exercise provided more detailed information on different land use forms (Fig. 2) for each of the landscapes. Specified data sheets were filled to collect information on land use with a specific focus on forests, main ecosystem services, communities and people. Within each landscape, 3 key informant interviews with key stakeholders were conducted. In order to facilitate satellite photo interpretation Ground Control Points were assessed. On these points GPS coordinates were taken and land cover/land use was determined according to a standardized code. Nearly 2.000 ground control points were assessed (Tab. 2).



**Figure 2:** Example for mapping exercises: Results from the mapping exercise in the landscape in Ahuano along the Rio Napo.

**Table 2:** Workshop participants, key informants and ground control points

Landscape	Number of communities	Number workshop participants	Number key informants	Number ground control points
E1_Rukullacta	4	21	3	162
E2_Arajuno	3	11	3	116
E3_Canelos	7	17	3	126
E4_Carlos Julio Arosemena	7	18	3	216
E5_Chontapunta	8	25	3	178
E6_Ahuano	7	15	3	258
E7_Ávila Huiruno	6	7	3	236
E8_Dahuano	7	11	3	203
E9_Santo Domingo de Ózole	4	.	3	172
E10_Tabiazo	4	18	3	142
E11_San Francisco de Ózole	7	24	3	88
E12_Cube	9	14	3	102
<b>total</b>	<b>73</b>	<b>181</b>	<b>36</b>	<b>1999</b>

### 3.2 Forest Management

In order to assess the impact of land use on forest area and forest structure, data on carbon storage, biodiversity, and tree composition, was collected. Primary and secondary forests, forest plantations and agroforestry plots were assessed. In total, 153 randomly selected forest plots were measured (Tab 3). On each plot, all trees with a DBH > 10cm were measured on an area of 40\*40 m. Additionally, on an area of 60\*60 m all trees with a DBH >40cm were measured. Soil samples were taken and deadwood was measured.

**Table 3:** Number of forest plots

Landscape	Bosque Primario	Bosque secundario no completamente deforestado (Aprovechado)	Bosque secundario completamente deforestado (Sucesión)	Plantacion	Chakra	Subtotal
Rukullacta	3	3	3	0	3	12
Carlos Julio Aros	3	3	3	0	3	12
Canelos	3	3	3	0	3	12
Arajuno	3	3	3	0	3	12
Chonta Punta	3	3	3	0	3	12
Ahuano	3	3	3	0	3	12
Avila	3	3	3	3	3	15
Dahuano	3	3	3	3	3	15
Santo Domingo	3	3	3	0	3	12
Tabiazo	0	3	3	3	3	12
San Fransisco	3	0	3	3	3	12
Cube	3	3	3	3	3	15
<b>Subtotal</b>	<b>33</b>	<b>33</b>	<b>36</b>	<b>15</b>	<b>36</b>	<b>153</b>

### 3.3 Livelihoods and opportunity costs

To politically influence land use decisions, an analysis of the involved land users and their decisions is essential. Socio-economic conditions at the household level are an important basis to assess

opportunity costs of forest conservation. In order to assess this, a specific household questionnaire was designed comprising 87 questions on a wide variety of aspects (Tab. 4).

**Table 4:** Topics of the household questionnaire

1.	INSTRUCTIONS
2.	GENERAL HOUSEHOLD INFORMATION
3.	LAND USE & ASSETS
	3.1 Land under use by household
	3.2 Land use public
4.	ECONOMIC AND PRODUCTIVE ACTIVITIES
	4.1 Agriculture
	4.2 Livestock
	4.3 Forest Use
	4.4 Fishing and aquaculture
	4.5 Other sources of income
5.	POLICY INSTRUMENTS
6.	FOREST ISSUES
7.	CRISIS AND UNEXPECTED EXPENDITURES
8.	HOUSEHOLD ASSETS

In total, 1317 household surveys were conducted during the field campaign. With a range of 77 to 139 households per landscape (Tab. 5).

**Table 5:** Number of households surveyed.

Landscape	Number of HH surveys
E1_Rukullacta	100
E2_Arajuno	91
E3_Canelos	82
E4_Carlos Julio Arosemena	95
E5_Chontapunta	113
E6_Ahuano	122
E7_Ávila Huiruno	139
E8_Dahuano	137
E9_Santo Domingo de Ónzole	77
E10_Tabiazo	111
E11_San Francisco de Ónzole	135
E12_Cube	115
<b>Total</b>	<b>1317</b>

#### **4. Outlook**

Remaining tasks will be accomplished during a prolongation of the field activities until end of January 2018. This will include feed back workshops in all landscapes in order to provide results to the communities. In this context governance assessments will also be conducted. Additional works to be carried out include the collection of additional ground control points, soil analysis in the laboratories of UEA and to a minor extend socio economic surveys of households and producers focusing on palm oil in the province of Esmeraldas as well as forest inventories on a small number of remaining plots.