

# **Ecological Reserve LOS YALTES**

## **Chontal Alto-Imbabura**

### **Project**

Reforestation and conservation of Los Yaltes "cloud forest"

Creation of a scientific station

Construction of a center of scientific ecologic tourism



# Summary

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# Mission

Protect "cloud forests" from deforestation and encourage recovery of the original biodiversity

# Objectives

The general objective of the project is the **preservation** of the "cloud forest", the **communication** about its importance and its richness; and finally, the expansion of the area covered by the ecological reserve Los Yaltes in the perspective of a **wider conservation**.

The achievement of the general objective demands the realization of different objectives inside the ecological reserve Los Yaltes:

- > To establish a reforestation program for recovering deforested areas
- > To set up an open scientific station for students and researchers who wish to work in this unique ecosystem.
- > To develop a responsible eco-tourism activity within the reserve
- > To gather international volunteers for the development of skills in the different areas that this project proposes (agronomy, biology, local development).
- > to do participate the locals "comunidades" to this proyect.

# The cloud forest

The ecological reserve Los Yaltes has more than 200 hectares of "cloud forest", located in the province of Imbabura, in the community of Chontal Alto. The reserve owes its name to two large trees characteristic of this ecosystem, the "Yalte rojo" and the "Yalte blanco".

The "cloud forests" form a particular tropical ecosystem where clouds and mist cover the canopy most of the time. A great amount of water is captured by the forest, by condensation of drops on the leaves of the trees. This characteristic change between the sky and the forest influences the ecology of this ecosystem. There are few places where this balance is reached, which explains the very low percentage of "cloud forests" in the world, less than 4%

The "cloud forests" have a rich native endemic biodiversity of the world. However, many of these forests remain poorly known such as the "cloud forest" of Los Yaltes.

These forests are important resources in times of drought because they are able to capture the last source of water, the clouds.

# The ecological reserve of Los Yaltes

The ecological reserve has a label of the program Socio Bosque from Ministry of environment. Quito. Ecuador.

80% of the reserve remained a primary forest where there has been identified hundreds of different species of birds, 40 species of mammals such as Pumas (Mount lions) and glasses eyes bear (in this moment in endanger) thousands of tropical plants, including a variety of amazing orchids and some very rare, bromeliads and other epiphytes. There is also many amphibians including some endemics like the marsupial frog or glass frog.

In this context, the ecological reserve Los Yaltes in Chontal Alto is a perfectly preserved forest in relation to the Cordillera del Toisan which is part of one of the most important regions of our planet, known as the floristic province or Bio region of "Choco" that extends to the south of Panama, Colombia and northwest Ecuador on the eastern side of the Andes.

The reserve is located in a very hilly area where streams and rivers of clean and crystalline water descend from the slopes of the mountains of Toisan.

## Actions

### Reforestation of damaged areas

Several hectares of the "cloud forest" of the ecological reserve Los Yaltes have been degraded by deforestation, especially because of the pasture. These spaces, scattered within the 200 hectares of the reserve, represent approximately 25 hectares. These deforested areas are responsible for land damage, destruction of animal habitats and loss of biodiversity. Thus, the cloud forests provide water, their degradation can prevent people from water.

The reforestation program could be achieved by the "Framework" species method. Pioneer or executive species are native forest species that improve natural forest regeneration and accelerate the recovery of biodiversity. In this process of reforestation, there are different sites that are organized by "stages of degradation", which go from the one containing the lowest to the highest degree. In Los Yaltes, some sites require only protection, remove grass and application of organic fertilizers while others are dominated by the presence of weeds and the sources of regeneration is insufficient, a tree plantation is necessary.

### The scientific station of Los Yaltes

The "cloud forest" are little explored ecosystems, that interest the scientific community. Several scientists, including the Pontificia Universidad Católica del Ecuador (PUCE), have studied the cloud forest of Los Yaltes. There have been completed the first surveys (ornithological and botanical) finding a great diversity of orchids, including some very rare plants, vanilla or even medicinal plants as the Sangre de Drago.

Cf. List of botanical species, Cf. List of birds at the end of the document

In order to promote scientific research in this type of ecosystem, researchers would have access to a study site of the "cloud forest" and new scientific discoveries could be important arguments for informing the public and the institutions about the need for their conservation. There is a botanical study project of one hectare of the Cloud Forest, in collaboration with the Universidad Católica del Ecuador.

## **Infrastructure of the station**

Nowadays, the reserve consists of a typical old house, dating back to the decade of 1940. From this house was built a room with a terrace, with a view of the cloud forest. In the course of the year 2017 three "cabins" were built. These facilities allow to gather comfortable tents for biologists, researchers, visitors and scholarship grantees.

The implementation of the scientific station will have the following infrastructure:

1. The house will consist of two platforms of "cabins", of 36 m<sup>2</sup>, with individual bath, in each room can be installed to 4 people with a double room or 8 people in twin beds.
2. The third platform will become a meeting room and a rest room for a scientists
3. For scientists a research laboratory will be built (2 large working tables with cabinets for storing samples, especially botanicals)
4. A bird watching platform will be built in the heart of the jungle
5. Creation of a net of trails and observation tower.
6. Monitoring of trap cameras.

## **Los Yaltes Ecotourism**

The ecotourism and scientific tourism can be done in Los Yaltes.

- Construction of a resort with a 12 people capacity with a all of ecological tourism quality international norms.

The activities that can be offered include:

1. Trails in cloud forest, exploration trails
2. Birdwatching (35 species that in 1981 were described as attractive for ornithologist lovers (cf. bird list, classified species ' ATRAC '))
3. Visit and knowledge of the productions of the Reserve (Granadilla, Naranjilla, bananas, organic gardens ...)
4. Bathing in the natural "Jacuzzis" formed by the Chontal river, which works in the heart of the Cloud forest.
5. Exploration and knowledge of the botanical diversity of the cloud forest (orchids, medicinal plants)
6. Naturalistic Photography

7. Participation of monitoring trap cameras
8. Trekking in the cloud forest
9. Visit of the organic jardin

A bilingual guide will be available to tourists, for the discovery of the "cloud Forest"

## **Volunteer in Los Yaltes**

Provide an opportunity for volunteers to participate in a cloud forest conservation project by participating in tree planting, scientific research, or even by promoting sustainable agriculture.

Possible activities:

1. Tree planting in areas degraded by deforestation
2. Development and design of trails
3. Botanical data collection at the Scientific station
4. Planning an orchid garden in the heart of the Cloud forest, on the edge of the Chontal river
5. Development of an organic orchard and the application of sustainable practices
6. Plantation of Granadilla, Naranjilla, bananas.
7. Naturalistic photographs
8. Oversight of trap cameras
9. Construction of study structures (bird observatories)
10. Communication through social networks

Volunteers will be able to enjoy the same infrastructure for scientists and tourists, at different times though.

## **... with a participation of local communities**

The ecological reserve Los Yaltes is located between the towns of Changuayacu Alto and Chontal Alto. Presence of local communities is limited nearby and are essentially isolated as well as some farm owners.

The local population is not directly involved in the management of the reserve, although the functioning and the fulfillment of the objectives of this cannot be done without direct interaction of the local communities.

A first component of the interaction of local communities is the hiring of these in the different stages of development of the project. These can be hired for the following activities:

1. Cooking for biologists and tourists
2. Guide for biologists and tourists
3. Station workers
4. Organic jardin
5. Work for the reforestation project, which is necessary important and repeated over time
6. Development of various locals micro-business complementary of the main project

In the long term, the tourism activity of the reserve can lead to the development of tourism initiatives by the local communities, achieving an alliance between these initiatives and the reserve for example; the reservation can provide these new initiatives in the programs of the tourists who come to visit the reserve. This partnership will be another opportunity for the economic development of the local population.

A second component of the integration of the local population into the project would be to raise awareness of the importance of preserving this ecosystem through explanatory meetings, the restoration of the reserve activities, through a visit to the sites of the reserve, or for the diffusion of alternative forms of economic development respectful of the cloud forest (ecological tourism, Agro forestry). The local population will be informed about the reasons for the preservation and restoration of the cloud forest, including economic benefits, which may provide services or alternative techniques to extend conservation beyond the limits of the reserve.

Los Yaltes Reserve Project can offer the future economic development thanks to the contribution of the local population, but also the development of its initiative through the provision of a sustainable ecotourism business. Also, more than the notion of development, this project promotes awareness and protection that is essential for the maintenance of the cloud forest and the improvement of the long-term living conditions of local populations.

## **Towards a wider conservation**

In order to consider a **short, meddle and long term** preservation of this ecosystem, to extend the area covered by the reserve, is a priority of the project.

In fact, this region has many deforested areas, our reserve has at the moment only a small part. In order to ensure the conservation of this "cloud forest" it is essential to think about expanding the ecological reserve area, to stop deforestation and restore the "cloud forest" in this region. In addition, expanding the reserve will provide more opportunities for scientific research to be more attractive to ecotourism activity and thus represent a way to communicate more in the need for preservation.

**Photo 1:** Example of a deforested zone of the reserve Los Yaltes, which causes the collapse of soil





**Photo 2:** House of the reserve Los Yaltes, where the local family lives



volunteer's Rooms and visitor's Rooms

**Photos 3, 4, 5:** The cabins, which will be appointed to form the rooms of the scientists, tourists and volunteers.





**Photo 6:** View of the reserve houses on the cloud forest canopy





**Photo 7:** Booking with track through



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Produced by Margot Naturel, agronomist (Institut Nationale d'Enseignement Supérieure en  
Agronomie et Environnement VetAgro Sup) France.

with Philippe Molins

July 2017

**Scientifics advisors**

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## Contact

### Los Yaltes Ecological Reserve

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**CONVENIO DE CONTINUIDAD Y SUBROGACIÓN DEL CONVENIO DE EJECUCIÓN No.  
MAE-PSB-I-2014-I-161 ENTRE EL PROYECTO SOCIO BOSQUE DEL MINISTERIO DEL  
AMBIENTE Y JOSÉ PATRICIO ANTONIO ANDRADE BEJARANO**

Comparecen a la suscripción del presente Convenio, por una parte, el Proyecto Socio Bosque del Ministerio del Ambiente, representado por el Lcdo. Santiago Esteban Kingman Garcés, en calidad de Gerente del Proyecto, en adelante denominado EL MINISTERIO; y, por otra parte, el señor José Patricio Antonio Andrade Bejarano, de estado civil casado, titular de la cédula de ciudadanía No. 170654694-0, quien actúa en representación de los señores propietarios Philippe Raymond Jacques Molins y Anna Elisabeth Kwak, en adelante denominado EJECUTOR.

Las partes acuerdan celebrar este Convenio de subrogación contenido en las siguientes cláusulas:

**PRIMERA: ANTECEDENTES**

- a) El artículo 71 de la Constitución de la República del Ecuador determina que el Estado incentivará a las personas naturales y jurídicas, y a los colectivos, para que protejan la naturaleza, y promoverá el respeto a todos los elementos que forman un ecosistema.
- b) El artículo 5 literal b) de la Codificación de la Ley Forestal y de Conservación de Áreas Naturales y Vida Silvestre señala como funciones y atribuciones del Ministerio del Ambiente, velar por la conservación de los recursos forestales y naturales existentes.
- c) La Secretaría Nacional de Planificación y Desarrollo –SENPLADES- mediante Oficio No-SENPLADES-SIP-dap-2008-21 de fecha 2 de Julio de 2008, declaró al Proyecto Socio Bosque como proyecto prioritario del Gobierno Nacional. Dicha prioridad fue ratificada mediante Oficio No-SENPLADES-SIP-dap-2011-556, de fecha 3 de octubre de 2011.
- d) Mediante Acuerdo Ministerial No.169 de 14 de Noviembre de 2008, el Ministerio del Ambiente estableció el Proyecto Socio Bosque del Gobierno de la República del Ecuador para lograr, entre otros objetivos, la conservación de las áreas de bosques nativos, páramos y otras formaciones vegetales nativas del Ecuador, mediante la entrega de un incentivo a propietarios de estas áreas y que voluntariamente se comprometan a su conservación y protección.
- e) Mediante Acuerdos Ministeriales No.115 de 12 de Noviembre de 2009, 42 de 26 de marzo de 2010, y 130 de 28 de junio de 2011 el Ministerio del Ambiente expidió el Manual Operativo del Proyecto Socio Bosque, en el que se establecen las condiciones y requisitos que los propietarios de predios cubiertos con bosques nativos, páramos y otras formaciones vegetales nativas deben cumplir para participar en el Proyecto.
- f) El Art. 2 numeral 1.1 literal b) del Acuerdo Ministerial No. 007 de 28 de enero de 2011,



Quito, November 01, 2017  
281-DFCEN-2017

To whom it may concern:

With this letter, the Faculty of Exact and Natural Sciences of the Pontificia Universidad Católica del Ecuador We want to support the project to rebuild the cloud forest in the "Los Yaltes" Chontal Alto private reserve and its development as an ecological reserve, represented by Philippe Molins

This project includes the implementation of a scientific station and a sustainable tourism center.

This initiative to protect the cloud forests from deforestation and to promote the recovery of biodiversity could part of ours biological and botanist programs (Students and Scientist).

That is why we want to express our full support and encouragement to this project, waiting for its realization.

Sincerely yours,

Mtr. Esteban Baus C.  
DEAN



EBC/mg

Chalguayaco Alto, 30 de Octubre del 2017

### CARTA COMPROMISO

La Asociación de Agricultores y Ganaderos "CHALGUAYACO ALTO" con Acuerdo Ministerial Nro. 004 de fecha Octubre 26 del 2007, localizada en la Parroquia García Moreno, Cantón Cotacachi, Provincia Imbabura. Consiente que la preservación de los bosques de neblina es de vital importancia para la conservación del medio ambiente y son importantes generadores de lluvia, participaran directamente en la iniciativa de la Reserva Los Yaltes Chontal Alto, la misma que es dirigida por los señores Philippe Molins y Patricio Andrade.

La Asociación de Agricultores y Ganaderos "CHALGUAYACO ALTO" participara en las actividades de desarrollo de turismo sustentable en diferentes campos, conservación de los bosques, guías de turismo, apoyo logístico, generación de actividades culturales, agroecología y capacitación de personal para operar en las diferentes actividades que se generen en el proyecto de reconstrucción del bosque de neblina y además en las actividades de ecoturismo.

Para aceptación del presente documento firman.

  
Sr. Israel Perez

Ci. 100704327-7

PRESIDENTE

ASOCIACION DE AGRICULTORES Y GANADEROS "CHALGUAYACO ALTO"

ASOCIACIÓN DE  
AGRICULTORES Y GANADEROS  
"CHALGUAYACO ALTO"  
ACUERDO MIN. N° 004  
DEL 26/10/2007

Sr. Philippe Molins

Ci. 12AF29811

PRESIDENTE

RESERVA LOS YALTES CHONTAL ALTO



**SOSTENGA MAN.SE.F**  
**Management Senza Frontiere Onlus**  
**CON IL SUO 5 per mille**

Destini il 5 per mille delle sue imposte a Management Senza Frontiere Onlus ([www.mansefonlus.org](http://www.mansefonlus.org)) che da 10 anni si occupa di sostenere a comunità e piccoli imprenditori principalmente di paesi in via di sviluppo nel loro cammino verso uno sviluppo sostenibile.

**IL 5 per mille A MAN.SE.F ONLUS CONSENTE**

- di sostenere iniziative di sviluppo integrato locale;
- di sostenere esperienze micro- ed imprenditoriali che contribuiscono al miglioramento delle condizioni di vita delle comunità locali, assicurando il rispetto dei diritti umani e combattendo qualsiasi forma di sfruttamento minorile
- di formare giovani imprenditrici ed imprenditori perché' siano preparati ad operare in una economia non solo di sussistenza
- di creare opportunità di crescita, con nuovi posti di lavoro e nuovi mercati
- di assistere le comunità emarginate ad avere un ruolo attivo nello sviluppo sostenibile locale

**ALCUNE INIZIATIVE IN CORSO**

**Peru**  
Mujeres Andinas en Camino: Provincia de Huaylas

Valorizzazione del Tarwi Lupino Andino come alimento ad alto contenuto proteico



**India:**  
WEP- Welfare and Education for the Poor Foundation. Coimbatore

Produzione di olio commestibile e altri prodotti da noci di cocco, per finanziare le scuole primarie locali



**Ecuador**  
Comunita' Chontal Alto

Riforestazione e recupero area Los Yaltes,



**COME FARE**

Per destinare il 5 per mille a MAN.SE.F Onlus è sufficiente indicare il codice fiscale di MAN.SE.F.Onlus

**97462320157**

e apporre la firma all'interno del riquadro "Sostegno delle Associazioni e Fondazioni riconosciute che operano nei settori di cui all'art. 10, C.1, Lett. A, del D.Lgs N. 460 del 1997", alla voce "Scelta per la destinazione del cinque per mille dell'Irpef" dei modelli per la dichiarazione dei redditi.

Associazione Man.Se.F. Onlus  
C.F. 97462320157 Anagrafe Onlus: 2007/85081  
Sede Sociale: P.zza Luigi di Savoia 22 - 20124 Milano - I



## Ministère de l'Agriculture, de l'Agroalimentaire et de la Forêt

Institut d'enseignement supérieur et de recherche  
en alimentation, santé animale, sciences agronomiques et de l'environnement

VetAgro Sup

**WORKPLACEMENT AGREEMENT - AGRONOMIC CURRICULUM (1 A to 3 A)**

A	1 - EDUCATION INSTITUTION	2 - HOST ORGANIZATION	B
	<b>VETAGRO SUP - Campus Agronomique</b> 89 Avenue de l'Europe (63370 Lempdes) ☎ 04.73.98.13.13 Représentée by Emmanuelle SOUBEYRAN (Directrice Générale)  Institution office of internships Board of education and student life (DEVE Agro) 📧 : Email : deve.agro@vetagro-sup.fr  Caisse de MSA contactée en cas d'accident par VetAgro Sup Caisse de Mutualité Sociale Agricole Auvergne	Name : BIOTEC, reserve privée de Chontal Alto Adress : Calixto muzu N3-79 y Napo City : Quito – Ecuador Country : Equateur Représenté by : ..... Capacity ..... Service in which the internship will be conducted : ..... 📧 ..... mél : ..... Training place (if different from the address of the organization) : .....	

3 - THE TRAINEE	C
Name : Naturel First name : Margot Gender : F <input checked="" type="checkbox"/> M <input type="checkbox"/> Date of birth : 23/01/1996 Adress : <u>13 avenue de Yevat 91230 MONTGERON</u> ..... ..... mél : <u>margot.naturel@gmail.com</u>	
TITLE OF THE TRAINING OR THE CURRICULUM FOLLOWED IN THE HIGHER EDUCATION INSTITUTION : INGENIEUR AGRONOME	

D
INTERNSHIP TOPIC : Certification carbone d'une forêt tropicale en moyenne montagne. Date of placement <u>05/06/2017</u> au <u>08/08/2017</u> Representing a total duration of (art. 3-1) (tick the box and indicate the number) : <input type="checkbox"/> ..... Days ; <input checked="" type="checkbox"/> <u>9</u> Weeks ; <input type="checkbox"/> ..... Months

Years of studies	1 A		2 A		3 A								
Theme (entourer la case)	Expl.	AI	(Pré-O)	Autre	AET	ALIME	APVE	CMAA	ESP	GEPV	IDT	Autre	
ECTS crédits allocation	7	4	5	////	30	30	30	30	30	30	30	30	
Compulsory training	<input type="checkbox"/>		<input checked="" type="checkbox"/>		Additional internship		<input type="checkbox"/>		Internship abroad				<input type="checkbox"/>
Expl. : stage exploitation ; AA : Agroalimentaire ; Pré-O : stage pré-optifnel ; Autre : ..... AET : Agriculture Environnement Territoire ; ALIME : Alimentation Innovation Management Entreprise ; APVE : Agronomie Production Végétale et Environnement ; CMAA : Commercialisation Marchés Agricole et Alimentaire ; ESP : Elevage Système de Production ; GEPV : Génomique Ecophysiologie et Production Végétale ; IDT : Ingénierie et Développement Territorial												Option extérieure	

MANAGEMENT OF THE TRAINEE BY THE EDUCATIONAL INSTITUTION	E	TRAINEE'S SUPERVISION BY THE HOST INSTITUTE	F
Supervising teacher's first/last name: .....		Last/First Name internship co-ordinator : Lozano Pablo	
Function and/ or discipline : .....		Function : .....	
📧 : .....		☎ (593) 2 2825 811 / 098 248 6658	
mél : .....@vetagro-sup.fr		e-Mail : pablo_lozanoc@yahoo.com.	

SPECIFIC TERMS OF THE INTERNSHIP (ART. 3.2)	AMOUNT OF GRATUITY (ART. 5.13)	LEAVE/ LEAVE OF ABSENCE (ART. 10.1)
Tick the appropriate boxes. If the frame is scratched, then no specific requirements for this internship <input type="checkbox"/> presence at night; <input type="checkbox"/> presence on Sundays ; <input type="checkbox"/> presence on public holidays ; <input type="checkbox"/> training at home ; <input type="checkbox"/> Other : .....	For one month, the bonus is: ..... € (in numbers) (net amount of employee contributions)	Tick the appropriate boxes : <input type="checkbox"/> number of days off : ..... <input type="checkbox"/> terms of leave and leave of absence (to be described hereinafter): .....
G	H	I

Done in a single original (preserved by VetAgro Sup) over FIVE PAGES including ANNEXES checked in article 15

Signature in « blue »

Done in Marcy-L'Etoile on .....	Done in <u>Paris</u> on <u>11/05/17</u>	Done in ..... on .....
For VetAgro Sup The General Manager  Emmanuelle SOUBEYRAN	The trainee (« read and approved » required) <u>read and approved</u> <u>Maturel</u>	The Host Organization (stamp + signature + position of the signatory)
Supervising teacher (name + signature)		Tutor of the host organization (name + signature)