

ADDENDUM No. 1 to LETTER OF AGREEMENT
dated 24 March 2014
BETWEEN
THE CENTER FOR INTERNATIONAL FORESTRY RESEARCH (CIFOR)
AND
THE PERUVIAN AMAZON RESEARCH INSTITUTE (IIAP)

CIFOR and The Peruvian Amazon Research Institute (IIAP) have previously signed a Letter of Agreement (LoA) for Sustainable Wetlands Adaptation and Mitigation Program (SWAMP) dated 24 March 2015, which expired on 28 February 2015.

CIFOR has agreed to amend the terms and conditions of the LoA as stipulated below:

1. Extend the LoA until 30 September 2015 with a new milestone and work plan as described in Annex 1.
2. Add an amount of USD 11,358 as described in Annex 1, budget section.
3. The payment schedule will be as follow:

Terms and Schedule	Amount (in USD)	Status
Upon receipt by CIFOR the signed copy of this LoA and an invoice	5,880	Done
Upon submission and acceptance of a financial report for the first fieldwork period (March-August 2014) and an approved invoice due on 15 September 2014	7,840	Done
Upon submission and acceptance of financial report for the third fieldwork period (September 2014 – February 2015) due on 15 March 2015.	5,880	Not yet done
Upon receipt by CIFOR of the signed copy of this addendum to the LoA and an invoice	4,868	Not yet done
Upon submission and acceptance of a financial report for the first fieldwork period (March-September 2015) and an approved invoice due on 30 September 2015	6,490	Not yet done
TOTAL	30,958	

4. The Subgrantee shall provide to CIFOR written project and financial reports, and any other information/report for monitoring and evaluation purposes as per the following schedule:

Report Type	Reporting Period	Report Due Date	Status
Financial Report I	March - August 2014	15 September 2014	Done
Financial Report II	September - February 2014	15 March 2015	Not yet done
Financial Report III	March - September 2015	30 September 2015	Not yet done

All the other terms and conditions of the LoA remain unchanged and continue to apply.

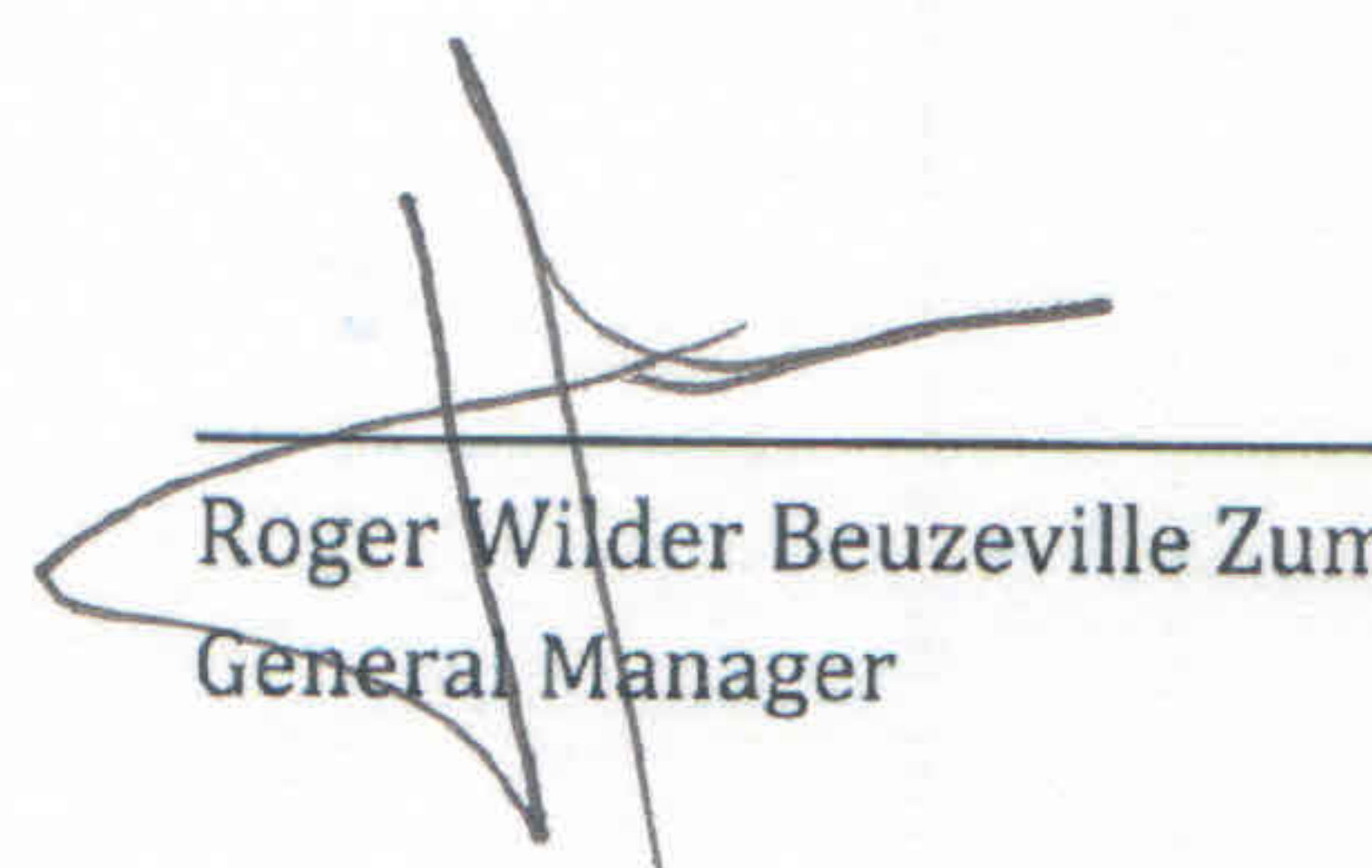
For CIFOR:



Louis Verchot
Research Director
Forests and Environment

Date: 13/3/15

For IIAP:



Roger Wilder Beuzeville Zumaeta
General Manager

Date: 3/7/2015

ANNEX 1: RESEARCH PROJECT

1. Background

The purpose of the research is to improve the understanding on how deforestation and forest degradation may affect the stocks of carbon and the exchange of greenhouse gases to the atmosphere.

The first component, which is part of the SWAMP program, aims at looking at peat forest degradation in the Amazon basin. Peru is the second country in the Tropics in terms of peat area. Carbon-rich tropical peatlands are considered as high priorities in climate change adaptation and mitigation strategies throughout the world. The SWAMP project proposes a research/capacity building project to quantify carbon stocks, emissions, baselines, and approaches to their monitoring, reporting, and verification in forested tropical wetlands. The specific project objectives include: (1) Quantify greenhouse gas emissions arising from intact wetland forests and sites that have undergone land cover change; (2) Quantify the carbon stocks of representative tropical forested wetlands of the world and associated land uses; (3) Develop ecosystem C dynamics modeling tools suitable for tropical wetlands and scale-up measurements to landscape, province, or country scales utilizing remote sensing approaches; (4) Quantify and define roles of tropical wetland ecosystems in climate change adaptation and develop potential scenarios for their inclusion in climate change adaptive strategies; and (5) as an integral part of all research and technical transfer activities incorporate approaches to capacity building and outreach.

The second component of the research, which is part of the Global Comparative Study of REDD+ (GCS), aims at studying the effect of forest conversion to oil palm plantation. Worldwide the area under oil palm is currently estimated as 10.7 million hectares. Demand for edible or biofuel palm oil has increased the planted area at an average annual rate of 6% since 2003. This expansion is often made to the detriment of tropical forest. Peru has the second largest forest area suitable for oil palm plantations among Amazonian countries and the Peruvian government put in place legal incentives for oil palm cultivation. Through comparative studies of the implementation of REDD+ around the world, the GCS REDD+ project takes stock of international, national and subnational experiences to identify challenges in designing and implementing effective, efficient, and equitable REDD+ policies and projects. GCS REDD+ aims to ask the right questions in order to provide reliable and timely answers and hopes to support countries in their effort to reduce emissions.

2. Objective

With respect to the first component of the research, CIFOR will hire and train an IIAP research assistant. The objective of the task for the IIAP assistant is to support the Ph D research project of Jeffrey van Lent, independently perform field and laboratory work, and develop a research proposal in view of a registration to an MSc. program. The IIAP assistant was trained during the first year of collaboration and is now able to individually perform field work necessary for the year round sampling of greenhouse gas fluxes (CO₂, CH₄ and N₂O). Additionally, the assistant will perform laboratory analysis, such as weighing and drying litter/soil and could possibly assist with laboratory experiments (e.g. mineralization and nitrification potential analysis).

With respect to the second component of the research, CIFOR will hire an IIAP engineer to support site selection of forest and oil palm plantation sites; as part of the post-doc research project of Louis-Pierre Comeau. The IIAP engineer will be trained to trace gas and C stock measurements during the collaboration.

3. Activities

3.1. IIAP research assistant

Fieldwork

Assist with fieldwork on two land uses at three sites and individually lead field work campaigns. In addition to routine monthly measurements, two intensive 24 hour measurement campaigns will be done. The activities consist in:



- Monthly measuring soil respiration using the EGM-4 and simultaneously writing respiration rates in a field notebook as a backup. After each field campaign copying data logged in the EGM to Excel spreadsheets. Collecting from closed PVC chambers air samples and transferring them in glass vials for further determination of CH₄ and N₂O concentrations by chromatography. Cleaning and evacuating glass vials before measurements.
- Measuring monthly soil temperature and water table depth at each PVC collar.
- Collecting monthly soils samples for moisture content analysis.
- Emptying litter traps and measuring water table depth monthly.
- Recording temperature and rainfall from the weather station and annotating the values in an excel sheet.
- Performing carbon stock assessment at two degraded sites, following the SWAMP protocol.
- Mapping vegetation distribution at the three sites.

Laboratory work

The activities consist in:

- Assisting with laboratory work at IIAP (and later possibly CIFOR-Lima) and ultimately perform experiments individually.
- Determining fresh and dry weight of soil samples, separate roots from soil samples.
- Separating leaves, twigs and woody debris from litter samples and determine fresh and dry weight.
- Assisting with incubation of soil cores and associated experiments.

If necessary assist other students participating within the project by Jeffrey van Lent.

The project areas are in the Province of Loreto, Iquitos.

3.1. IIAP engineer

The activities will consist in assisting Louis-Pierre Comeau in:

- The selection of three forest sites and about five oil palm plantations of different ages in their first and second rotation since deforestation.
- Discussing with land owners the access for carrying out long-term research at the sites.
- Making surveys of sites management and land-use history with the land owners and/or local workers.

The project areas are in the Province of Ucayali, Pucallpa.

4. Deliverables

The following reports are prepared by the IIAP assistant:

- Monthly field notebook reports summarized in a coherent manner.
- Monthly laboratory notebook reports summarized in a coherent manner.

These should summarize experimental setup, methods and results obtained for experiments performed in the field and in the laboratory.

- Monthly time sheet report, containing short description of activities on a daily basis.

All reports should be send to Jeffrey van Lent and Dr. Kristell Hergoualc'h.

5. Timing

The period of work for the IIAP research assistant shall be 1 March 2015 to 29 February 2016.

The period of work for the IIAP engineer shall be of a duration of five days in March/April 2015.

6. Budget

Item		Total (in USD)
Working place and use of IIAP laboratory facilities	USD 2,110 for 1 unit	2,110
Latrine construction at degraded site II	USD 1,407 for 1 unit	1,407
Boardwalk at degraded site II	USD 1,407 for 1 unit	1,407
Garbage disposal construction at degraded site I (San Julian)	USD 1,407 for 1 unit	1,407
IIAP research assistant's salary (Nicole Mitidieri)	USD 40 for 184 days	7,442
IIAP research assistant's insurance (life, accident, health-ESSALUD)	USD 414	414
IIAP engineer's salary (Diego Gonzalo García Soria)	USD 113 for 5 days	563
Overhead	10%	1,475
TOTAL		16,225

In addition to this:

- Expenses related to travel, accommodation and field work of the research assistant and engineer will be reimbursed by CIFOR upon submission of receipts.
- Rental cost for the IIAP boat including driver will be paid by CIFOR at a daily rate USD 70 and rental cost for the IIAP car including driver will be paid by CIFOR at a daily rate USD 136. CIFOR will cover oil expenses.
- IIAP will contribute USD 2,984 for salary costs of some technicians who would work with Jeffrey Van Lent (CIFOR).

The terms of payment are as follow:

Terms and Schedule	Amount (in USD)
Upon receipt by CIFOR of the signed copy of this addendum to the LoA and an invoice	4,868
Upon submission and acceptance of a financial report for the first fieldwork period (March-September 2015) and an approved invoice due on 30 September 2015	6,490
Upon submission and acceptance of a financial report for the second fieldwork period (September 2015 - February 2016) due on 29 February 2016 *)	4,867*)
TOTAL	16,225 *)

*) The payment after 30 September 2015 will be subject to available funding. In case the funding is available, we will make another addendum agreement to add the additional funds of USD 4,867 until 28 February 2016.