



Scotland's Rural College

LETTER OF UNDERSTANDING

Between

THE RESEARCH INSTITUTE OF THE PERUVIAN AMAZON

And




SCOTLAND'S RURAL COLLEGE

Date: 10th August 2021.



Professor Jamie Newbold
Academic Director
SRUC, Scotland's Rural College
Peter Wilson Building
King's Buildings, West Mains Road
Edinburgh EH9 3JG
jamie.newbold@sruc.ac.uk



To



Dr. Carmen Rosa García Dávila
Head
"Research Institute of the Peruvian Amazon"
Instituto de Investigaciones de la Amazonia Peruana - IIAP
Av. Aberlardo Quiñones km 2.5, Iquitos, Peru
San Juan Bautista- 16001
cgarcia@iiap.gob.pe

SUBJECT: *"Tropical peatland climate resilience: transforming governance of climate risks for poverty reduction in Indonesia, Peru and the Congo Basin" (The Project)*

Dear. Dr. Carmen Rosa García Dávila



SRUC, Scotland's Rural College, a company limited by guarantee, registered in Scotland under registration number SC103046 and having its registered office address at Peter Wilson Building, King's Buildings, West Mains Road, Edinburgh EH9 3JG ("SRUC") has been awarded a grant from the British Academy in respect of the Project (the "Main Grant"), the terms of which are attached as Annex 03, Part 1 of the Payment schedule of this letter.



Scotland's Rural College

On behalf of SRUC, we hereby offer you a Sub-award subject to the terms and conditions of the Main Grant. The tasks to be undertaken by you under this Sub-award are those allocated to you in terms of the Main Grant. You shall perform these tasks using all due diligence, skill, and care, and shall be bound by and comply with any corresponding obligations imposed on SRUC by the provider of the Main Grant.

You undertake not to conduct yourself (whether by act or omission) in such a manner that would cause SRUC to be in breach of its obligations under the Main Grant and shall indemnify SRUC from and against any liabilities, losses, costs or expenses incurred by SRUC as a result of a breach of this undertaking. The funding to be provided to you under this Sub-award is detailed in Annex 03, Part 1 of the Payment schedule of this letter.

Any intellectual property created in the course of the Project shall be owned by SRUC. Notwithstanding the foregoing, you retain the right to use such intellectual property in the course of the Project and for academic research purposes. Nothing in this Agreement shall affect the ownership of any background intellectual property (being any intellectual property owned by a Party prior to the commencement of the Project or generated by a Party outside of the Project) used in the implementation of the Project.

The Parties hereto hereby acknowledge their obligations regarding data curation and sharing under the Main Grant and each Party hereby consents to the other Party taking such actions and making all returns as the Parties agree are reasonably appropriate and necessary hereunder. Further, you hereby agree to provide such assistance to SRUC as required to enable SRUC to comply with such obligations.

Any additional conditions which apply to this Sub-award (over and above this letter) are set out in The Main Grant. This Sub-award shall be regarded as though it were a complementary agreement to the Main Grant. Nothing contained in this Sub-award shall be so construed or interpreted in any way as to diminish or alter the rights of the provider of the Main Grant as set out in the Main Grant. You shall procure that in carrying out your obligations under this letter, you will comply with all applicable laws, regulations, and statutes, including those relating to anti-bribery as detailed in the Bribery Act 2010 and other analogous legislation. This letter shall be governed by and construed following Scots Law and subject to the jurisdiction of the Scottish courts.

Please acknowledge receipt of this letter and acceptance of its terms by signing, dating, and returning a copy. This Agreement may be executed in any number of counterparts and by each party on separate counterparts. A copy of this Agreement delivered by electronic means (including e-mail) shall be deemed to be a duly signed original for all purposes. Where executed in counterparts each counterpart will be held as undelivered for the Legal Writings



Scotland's Rural College

(Counterparts and Delivery) (Scotland) Act 2015 until the last date of signature hereof.

Yours faithfully,

Authorized Signatory of SRUC:

Signature : CS Newbold

Name : Professor Jamie Newbold, Academic Director

Date : 01/10/2021

Accepted for and on behalf of IIAP:

Signature : Carmen Rosa Garcia Dávila

Name : Dr. Carmen Rosa Garcia Dávila, IIAP Head

Date : 27/08/21



Annex

Annex 01. GENERAL PROJECT

Project Title: Tropical peatland climate resilience: transforming governance of climate risks for poverty reduction in Indonesia, Peru, and the Congo Basin.

General Proposed Research:

Emissions from damaged peatlands account for 5% of the global carbon budget, with the majority coming from tropical peatlands. There are significant governance challenges associated with restoring damaged peatlands but 80% of current research is from natural science. This project, therefore, brings together social scientists specializing in environmental governance with natural scientists. It develops novel governance actions that can transform the resilience of poor and marginalized groups to better manage climate risks in the peatlands of Indonesia, Peru, and the Congo Basin; areas that represent the majority of tropical peatlands area and emissions. Our research will:

1. Build social science and interdisciplinary capacity in the international tropical peatland community, leading to the co-production of an interdisciplinary climate resilience research agenda.
2. Develop innovative governance approaches that integrate social science on ecosystem markets with natural science and engineering technologies for peatland restoration, to transform governance and reduce vulnerability to climate risks.

Development Challenges:

The proposal meets the following development challenges:

Tropical peatlands provide globally important ecological and climate benefits, plus local and national socioeconomic benefits for some of the most remote and impoverished communities in countries like Indonesia, Peru, Republic of Congo and the Democratic Republic of Congo (DRC) (UNEP, 2017). However tropical peatlands in these countries are threatened by drainage for agriculture, commercial forestry, and infrastructure development, with the GPI's first major report pointing to policy and governance challenges as key to sustainable development and poverty reduction challenges (UNEP, 2017).

Indonesia hosts the largest tropical peatland in the world, responsible for more peatland greenhouse gases (GHGs) than any other country. Working with the Indonesian Peatland Restoration Agency and other stakeholders, Harrison et al. (2019) identified over 50 development challenges relating to rewetting, revegetation, revitalization, and reducing fires to provide sustainable livelihoods



for peatland communities. They and Estrada et al. (2018) identified an urgent need for improved governance and law enforcement to tackle these challenges. Peatland fires in Indonesia in 2015, coincided with droughts caused by an ENSO (El Niño Southern Oscillation) event, triggered smog and smoke that led to over 100,000 premature deaths across the southeast Asian region (Kopplitz et al., 2016). It is estimated that up to 15,000 premature deaths per year are attributable to peat fires in this region (Marlier et al. 2012). The 2015 fire is also estimated to have cost Indonesia US\$16.1 billion (about 1.8% of GDP in 2014; World Bank, 2016), with wider economic impacts across the region linked to disruption of flights. Total emissions from the 2015 fire have been estimated at 1.75 GtCO₂e, almost doubling the country's annual emissions (to a level more than double that of Germany's emissions at the time) (Tacconi, 2016). Widespread fires occurred again in 2019, emphasizing the urgent need for improved peatland management and fire suppression. Large peatlands occur also in Peru (Lähteenoja et al., 2009; 2012; Draper et al., 2014) that are still largely intact due to its remote and inaccessible location and presence of protected areas and indigenous communities, despite growing pressure from deforestation for oil palm plantations and new roads (Baker et al., 2019). Peruvian peatlands are threatened by the increase of droughts and severe flooding in Amazonia (Gloor et al., 2013), and the development of new transportation routes in the region (Baker et al., 2019). Evidence of the large quantities of carbon stored in swamp forest soils supported the first successful policy proposal for land-based climate change mitigation led by the Peruvian Fund for the Conservation of Nature (PROFONANPE) to the Green Climate Fund. However, weak environmental governance threatens the conservation of peatlands in Peru and limits adaptation to the likely increase in severe droughts and floods (Gloor et al., 2013).

The Republic of Congo and the Democratic Republic of Congo (DRC) are developing strategies to protect and restore the peatlands of the Congo basin (Dargie et al., 2017). However, major governance challenges arise from lack of resources, limited understanding of the location, extent, and condition of peatlands, and wider issues relating to enforcement, corruption, insecurity, and inadequate access to justice (Reed et al., 2019). Both areas are home to tropical forests and are internationally important for biodiversity and climate mitigation.

In all four regions, the project seeks to identify sustainable development pathways to conserve and manage large intact peatlands of the Congo Basin and Peru while restoring heavily exploited peatlands in Indonesia.



Scotland's Rural College

Annex 02. PERU PROPOSED RESEARCH:

Project Title: Tropical peatland climate resilience network: transforming governance of climate risks for poverty reduction in Peru.

Introduction:

Lower Amazonia hosts the richest and diverse peatlands of Peru and the planet. Even if the related scientific knowledge to this peculiar forest is poorly known, there is some evidence that some of them hold the major numbers of biodiversity of the planet. In the Loreto region, the forests placed in *Abanico of Pastaza* as well as the Ucamara depression are considered the most diverse of the lower Amazonia. In these natural spaces are found the most important wetlands at the regional level, thus its conservation is of great deal importance for the keeping and balance of the worldwide weather.

The importance of these ecosystems, seasonal or permanently flooded, inhibits in its capacity to retain or capture carbon. The biomass held inside the leaves, barks, fruits, flowers, etc. falls to the soil and because the flood is almost permanent, it doesn't decompose totally. The null decomposition of the forest biomass does not allow the carbon inside of the organic matter, to be expended to the atmosphere in the CO₂ form.

In this way the research project "Tropical peatland climate resilience network: transforming governance of climate risks for poverty reduction in Peru" through a multicultural approach aims to generate new scientific knowledge about peatlands ecosystems, specifically on the hydromorphic "*varillales*" covering local and occidental scientific knowledge. Besides, through a participative and common work with Amazonian communities partners is intended to understand the dynamics of changes of these important ecosystems, in both natural and anthropic terms.

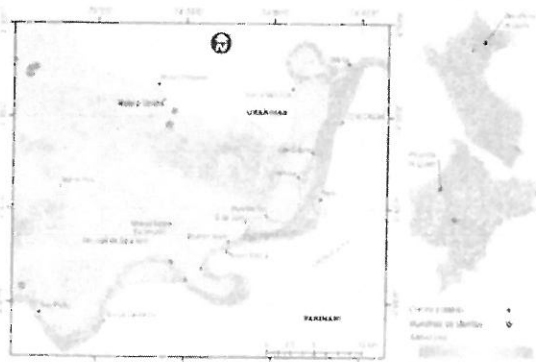


Figure 1. The geographical zone where the project's activities will be developed.



OBJECTIVES:

- To gather and analyze the communities' knowledge have on peatlands, specifically on the hydromorphics "*varillales*" complex through the Chambira river basin.
- To do a rapid survey about the uses of plant species in this area.
- To gather oral traditional knowledge and others related to the study area.
- To do a hydromorphics "*varillales*" floristic survey in the Chambira basin.

METHODOLOGY:

Zone Actor's map

A zone priorities actor's map of the study area will be designed. According to the secondary gathered information, preliminary maps will be designed, which will be of great deal utility to the fieldwork. Moreover, before fieldwork, meetings will be held with the Urarina's Federations representatives of the Chambira basin and other actors related to the research project.

Prior and informed consent

It will be organized prior and informed consent meetings in the communities under study. To do that, it will be designed consent forms and will be prepared necessary information to be used in these communities.

Semi-structured interviews

I will be designed and applied interviews to the study communities' habitants. The interviews will be reinforced with maps to the individual identification placements of the studied ecosystem's locations and the resource uses. The interviews will be about the communities' knowledge have on the study area, its strategies for resource uses, and the conservation vision of these areas.

Focal groups

Focal groups will be held with communities' habitants to set up the specific uses given to these areas.

Talking maps design about peatlands locations and hydromorphics "*varillales*"

To exactly identify the potential hydromorphic "*varillales*" zones and the uses of its resources, it will be organized participative meetings in every community considered in the study. The meetings will count with a native Urarina translator.



Scotland's Rural College

Visit the resources sampling and the wetlands of ecological and cultural importance

Coordinations will be done with the different communities in the study to visit the previously identified points of interest on the talking maps. This will help the biological team do its work.

Floristic assessment of the hydromorphic *varillales*

Floristic assessment will be applied to hydromorphic *varillales* using transects and circular plots. This will consist of a 1 km transect where circular plots of 0.1 ha will be done to identify trees' individuals and palms above 10 cm diameter at breast height (DBH). The RAINFOR protocol will be used to assess the individuals of trees and palms.

Measurement of peatlands' depth

Measurement of peatlands' depth will be done through the transects of 100 km at every 200 or 500 meters using a Russian-peat corer. On the circular plots, the peatland depth will be assessed at the plot's core.

PRODUCTS

1. Report of the perceptions and uses of the hydromorphic *varillales* in the study communities.

SCHEDULE

Activity	Aug - Dec 2021	Jan-Dec 2022	Jan-Aug 2023
Logistics to the fieldwork: Materials, personal, insurances.	X		
Fieldwork: Assessment of hydromorphic <i>varillales</i>	X		
Office: Analysis of Interviews, talking maps, and focal groups	X	X	
Office: Botanic samples identification	X	X	
Products discharge: Preliminary version	X		
Products discharge: Final version			X



Scotland's Rural College

BUDGET

ITEM	TOTAL (£)
Administration fees	1, 350.00
Materials and supplies	1, 025.00
Human Resources	16, 887.00
Technological services	2, 450.00
TOTAL GENERAL	21, 712.00





Scotland's Rural College

Annex 03. Payment schedule

This is the Schedule referred to in the foregoing Sub-award Agreement between SRUC and IIAP

Part 1

Payment Schedule

SRUC shall pay to you, in consideration of the work carried out under this Sub-award, the sums detailed below. All sums are inclusive of any present and future exigible taxes, including VAT.

Payments shall be made, subject to the receipt of sufficient funds from the provider of the Main Grant and within 30 days of receipt of invoices from you, as follows:

63% of the total sums detailed below on 30th August 2021; and
37% of the total sums detailed below on 29th April 2022 and SRUC's receipt of a satisfactory end of Project report from you.

Invoices must be raised for 100% of costs incurred (showing 100% of expenditure) according to the categories below.

ITEMS	100% to be paid to you by SRUC
Directly Incurred Staff Costs	£21,712
Directly Allocated Staff Costs	£0
Indirect Costs	£0
Estate Costs	£0
T&S Costs	£0
Directly Incurred Other Costs	£0
TOTAL:	£21,712



Scotland's Rural College

Annex 04. Additional Conditions

Sub-award commencement date: 30th August 2021

Sub-award end date: 29th April 2023 unless the Main Grant terminates early for any reason, in which case this Sub-award will also terminate on that earlier date.

Invoices to be addressed to Invoices, quoting the purchase order number should be submitted to:-

SIDPurchase@sruc.ac.uk or if non-UK sub-contract treasury@sruc.ac.uk or addressed to:

SRUC Finance Department
Peter Wilson Building
West Mains Road
Edinburgh
EH9 3JG

Reference: 1036055

