TReeS News No.91

September 2022

Newsletter of the Tambopata Reserve Society (TReeS)

Dear TReeS members,

Welcome to this edition of TReeS News, which focuses on the small grants programme and activities relating to Casa Miraflores.

This newsletter includes brief details of the 2022 TReeS small grant recipients (see page 2) and reports from three past recipients of a grant (see pages 2-3). The training of young Peruvian scientists is likely to remain one of the best ways to counter deforestation and climate change in the long-term in the Amazon so our support to encourage them in the early stages of their careers is seen as vital.

There are also details of recent TReeS funding – some institutional support for FENAMAD; improvements to Casa Miraflores, the FENAMAD house for higher education students in Puerto Maldonado; and the El Pilar agro-forestry project, which benefits them. The students have the potential to play important roles in future in their chosen professions, communities and representative organisations so it is essential that they are provided with every opportunity to develop their careers;

Finally, there is a report about an unfortunate recent encounter between loggers and the Mashco-Piro living in voluntary isolation in an isolated area on the rio Tahuamanu which led to the death of a logger.

TReeS AGM

The TReeS (Members) AGM will be held on-line on Wednesday 26th October 2022 at 6.30pm (UK time)

Please contact us if you wish to attend at: treescommittee@gmail.com

Articles in this issue include:

TReeS contacts:

***Facebook:** https://www.facebook.com/Tambopata-Reserve-Society-109913004198901

***Website:** www.tambopata.org.uk

***Email:** treesuk1@gmail.com

TReeS Becas 2022

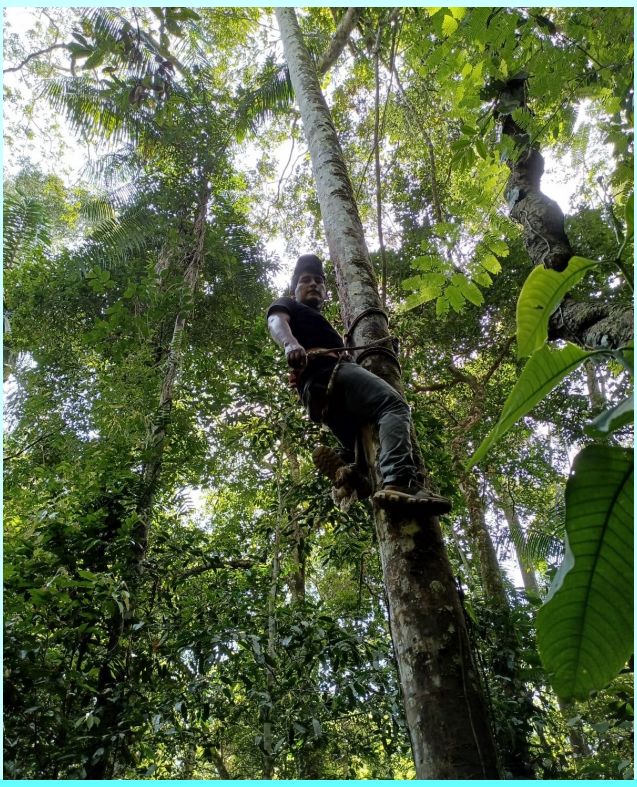
For the first time, in 2022, the TReeS small grant application process was promoted by social media and could be accessed on-line. In 2020–21, due to the pandemic, grants were only awarded to students studying at the UNAMAD (University of Madre de Dios), in Puerto Maldonado, but in 2022 students from any University in Peru were welcome to apply. The process was also opened up to all students and not just undergraduates.

The 2022 announcement was viewed over 30,000 times on Facebook, leading to the receipt of fifteen applications from students studying at six different Universities.

Over the last 14 years, TReeS has offered 80+ small grants to Peruvian students to undertake their fieldwork in Madre de Dios at a rate of around 5-6 grants per year. Many of them have let us know that TReeS funding was significant in enabling them to complete their studies and establish their careers. Their reports can be found on the TReeS website.

We hope very soon to make an announcement with respect to the 2023 grants programme.

Appeal: £25+ to maintain the small grants programme. We would also welcome full funding of individual students by those with a specific interest in funding research relating to specific studies of birds, bats, butterflies, mammals, impacts of gold-mining, etc in Madre de Dios.



Pona Palm study © P.Champi (See page 2)

TReeS small grants 2022 awards

Grants were awarded to the following students -

***Romina Camus,** a student at the National University of La Molina (UNALM), in Lima, in support of her research project entitled - '*When frogs inhabit the forest microhabitat networks of the anuran assemblage in Kawsay Conservation Concession / Cuando las ranas habitan el bosque redes de microhabitat del ensamblje de anurus en la concesión de Conservación Kawsay'.*
Romina plans to determine the factors that influence the use of microhabitats by the anuran assemblage in the Kawsay Conservation Concession which will involve describing the composition of the anuran assemblages found; characterizing the interactions between anuran species and their microhabitats; & analysing the relationship between anuran morphological traits and/or morphological / microenvironmental traits of vegetation and microhabitat use. Awarded: $1,000

***Maria Garcia,** a student at the University of Engineering & Technology (UTEC), in Lima, in support of her research entitled - '*Biochar as a potential reducer of bioavailability and toxicity of mercury in Microcharm with water fleas / Biochar como potencial reductor de biodisponibilidad y toxicidad del mercurio en Microcharm con pulgas de agua'.*
Maria plans to evaluate the effectiveness of biochar (lightweight black residue, made of carbon and ashes: in this case from brazil-nut shells) in reducing the bioavailability of mercury in microcosms and its subsequent bioaccumulation in *Daphnia magna*. In this way, the aim is to provide a strategy to minimise the negative effects of mercury in the trophic web of mining ponds. Awarded: $600

***Ruth Buitron,** a student at the National University of Federico Villarreal (UNFV), in Lima, in support of her research project entitled - '*Gender, participation and leadership in indigenous Yine communities in Madre de Dios / Genero, participación y liderezgo en comunidades indigenas Yine de la región Madre de Dios'.*
Ruth plans to try to understand perceptions of participation and leadership of indigenous women in Yine communities in Madre de Dios and to what extent the Yine women exercise active participation at the political, economic, social and community levels as well as assertive leadership in the representation and expression of opinions on the demands/needs of their communities.
Awarded: $1,000

Sonaly Tomas/Sofia Vasquez, students at the University of Engineering & Technology (UTEC), in Lima, in support of their research project entitled - *'Bacterial cellulose hydrogen production as an improved option for pollutant removal / Producción de hidrogeno de celulsa bacteriana como opción mejorada para la remoción de contaminantes'.*
Sonaly & Sofia plan to develop and validate a methodology for the production of nanocellulose hydrogels from bacterial cellulose to be used in the treatment of effluents and sediments contaminated with heavy metals. They hope to confirm that chemically modified bacterial cellulose hydrogels will effectively remove heavy metal ions from polluted effluents and sediments.
Awarded: $1,000

TReeS small grants feedback

Paul Champi Huayta, a student at the National University of Madre de Dios (UNAMAD), received a small grant in 2020 to study the '*Caracterización de la densidad y estructura poblacional de la palma pona (socratea exorrhiza), en un bosque de tierra firme de la amazonia peruana'/'Characterization of the density and population structure of the pona palm (socratea exorrhiza), in a terra firme forest'.*

Paul writes: "My objective was to describe the density and population structure of the pona palm (*Socratea Exorrhiza)* in a terra firma forest located just north of Puerto Maldonado - the conservation area "Fundo el Bosque", which belongs to UNAMAD. We defined 6 plots of 1 hectare each, each 500 meters apart with a total distance of 3 km between them. All individuals of *Socratea Exorrhiza* within the plots were recorded. The morphological data taken into account were stem height, leaf (whole leaves, divided leaves, pinnae shape) characteristics, root characteristics, root cone height, bracts, inflorescences and infructescences.

A total of 998 individuals (166.3 ± 7.8 individuals/ hectare) were recorded, distributed across three significantly different structural groups: seedlings, juveniles and adults. In the case of seedlings – 917 individuals - their main characteristics were undivided leaves without the formation of fulvous roots, and were mainly less than 0.5 metres tall. For the juveniles, 55 individuals, their main characteristics were leaves divided into pinnae and roots with a height below 1 metre. Their heights were mainly in the range 2 to 10 metres. For the adult category, just 29 individuals, the main characteristics were pinnate leaves, fully developed roots, established root cones and the presence of reproductive organs. Their heights mainly ranged from 15 to just over 20 metres.

As is often the case in tropical forests, it was observed that the frequency of individuals reduced with age so that a higher frequency was recorded with trees in the first stages (seedlings) compared to those of a more advanced age. The importance of characterizing these structures by morphological aspects for different forest types, as opposed to generalized studies of this type, is discussed in the full report. This helps to have a greater understanding of how the dynamism of the *terra firme* forests in the Amazon has developed.

Labelling the sample palms © P.Champi

TReeS small grants feedback continued

Edwin Jurado Rojas, a student at the National University of Madre de Dios (UNAMAD), received a TReeS small grant in 2018 in support of his research project entitled '*Determinación de recursos frutales claves (RFC) en bosques de bajo Madre de Dios' / 'The determination of key fruit resources (KFR) in forests of lower Madre de Dios'.*

Edwin writes: "The concept of Key Fruit Resources is based on the existence of an obvious dry season, in which the availability of fruit resources is very low, while in the rainy season there is often an over-availability of these resources for fruit-eating animals. The rainy season causes certain species with fleshy fruits to produce an abundance of fruits, perhaps due to the increase in humidity which is fundamental in the production of fruits.

In Madre de Dios, there are clear dry (June-September) and wet (November-March) seasons. Consequently, there is a small group of tree & liana species that produce fleshy fruits during the low fruiting (dry) season that assume a disproportionate and critical importance for the survival of the frugivores.

The aim of my research was to identify the most important tree and liana species to focus conservation and sustainable management efforts on in the forests of Madre de Dios, with respect to key fruit resources. My research was based at three sites - Reserva Amazónica (RA), a 17,000 hectare private reserve, managed by the Asociación Inkaterra, a Peruvian ecotourism company; the Los Amigos Biological Station (LABS), a 453 hectare research centre adjacent to the 146,000 hectares Los Amigos River conservation concession; and the Tambopata Research Center (TRC), an eco-lodge and research centre run by Rainforest Expeditions, located within the 275,000 hectare Tambopata National Reserve. All three sites feature flooded forests with similar characteristics.

Each site contained research plots, measuring 200 x 200 m (4 hectares), within which each tree with a diameter at breast height > 10 was marked and located, and identified to the most precise species or taxonomic level possible in the field. Each plot had a system of 196 traps placed in 14 rows and 14 columns (every eight metres) occupying an area of 1 hectare, to collect fallen fruit and seeds.

The traps were monitored every fortnight and the data recorded consisted firstly of fruit and seed identification (tree species), quantity of fruit and seeds, fruit-state (mature, immature, failed), seed-state: intact, with pulp, damaged, found in faeces, etc. The ripe fruits were weighed, then pulped to extract the seeds which were also weighed, and the number of seeds per fruit was recorded along with the dimensions of the fruits and seeds.

The identification and classification of potential KFRs was based on the methodology of Diaz-Martin (2014) using the following criteria:

- non-redundant (species that fruit well during the fruit scarce season, June-September).

- ubiquitously consumed (by various frugivorous species, not just one group).

- volumetric percentage of fruits (based on length and width measurements).

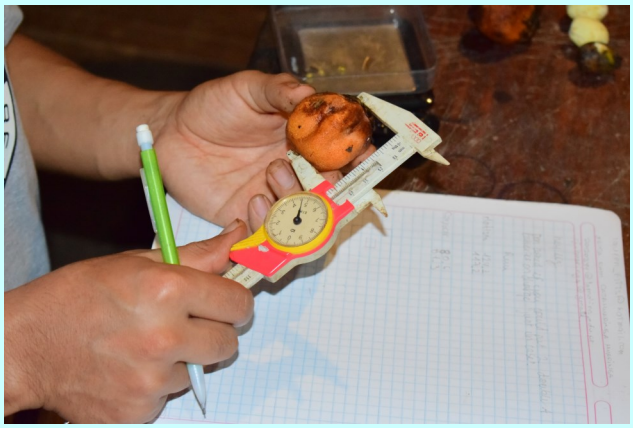
Based on the combination of these values, each species analysed was given a ranking with respect to its potential to be an KFR.

The lowest monthly fruit production at the TRC was recorded in April (3% of production), while at RA it was May (3.4%), and, at the LABS it was August (1.8%). The study identified the species concerned and also demonstrated that there are certain species of KFR which produce all their fruit at this time including *Sloanea fragans* which produced 100% of its fruit in the month of April at the TRC. At all three sites *Pseudolmedia laevis* produced fruit for several months even in the dry season, providing an important food source for species such as *Ateles spp* (Spider monkeys) and *Alouatta spp*. (Howler monkeys).

It is also important to note, for example, that *Guarea macrophylla* is a large fruit compared to *Pseudolmedia laevis* and *Pourouma cecropiifolia,* but this does not necessarily imply that it has more nutritious or better food source. Consequently, it is important to consider various quantitative as well as qualitative properties to determine the importance of species as KFR.

In terms of implications for conservation and sustainable management of the forests of Madre de Dios, the results indicate that a few specific fruiting species are of disproportionately high importance for the survival of the frugivorous vertebrate community based on their fruiting patterns. These tree species should receive high attention and priority in efforts aimed at forest conservation and sustainable management.

Finally, it should be noted that these results are based on a single year of data, long-term, multi-year studies need to be undertaken to confirm these preliminary findings.



Measuring individual fruits © E.Jurado

Weighing individual fruits © E.Jurado

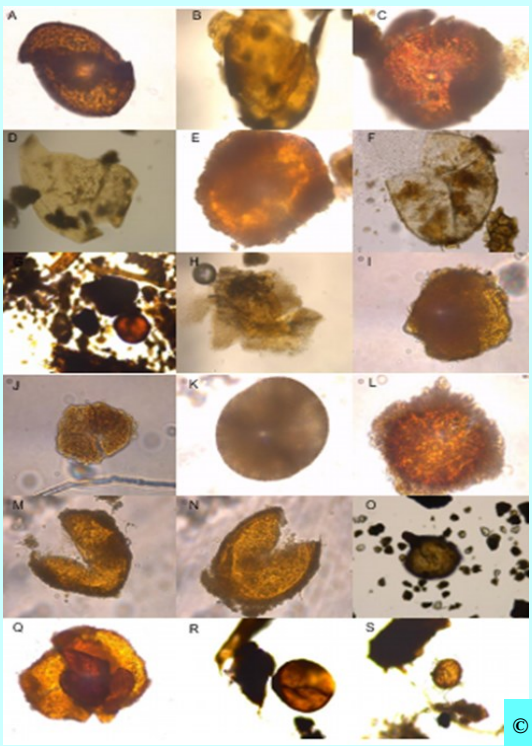
TReeS small grants feedback continued

Junior Carrasco Cornejo, of the National University of Madre de Dios (UNAMAD), received a grant in 2020 to support his field research entitled: *'Identificación de hongos micorrízicos arbusculares en las parcelas permanentes de la Reserva Amazónica de Inkaterra, Reserva Nacional de Tambopata y el Centro de investigación y capacitación Rio Los Amigos' / 'Identification of arbuscular mycorrhizal fungi in the permanent plots of the Inkaterra Amazon Reserve, Tambopata National Reserve and the Rio de Los Amigos investigation and training centre'.*

Junior writes: "I set out to identify, compare & quantify mycorrhizal fungi at three locations: the permanent study plots in the Tambopata National Reserve, Inkaterra Amazon Reserve and Los Amigos river research centre. There is a growing focus on understanding the role and importance of mycorrhizal fungi in the function -ing of ecosystems, their ability to release minerals in to the soil and their role in supporting tropical rainforests to regulate the climate.

In total 45 samples were collected from each site at a depth of 20cms in both the wet and dry seasons. Junior used the following website – www.invam.wvu.edu - to assist with the identification of the mycorrhizal fungi. Spores were identified from the following generos: *Gigaspora, Acaulospora, Glomus, Scutellospora* and *Funneliformis,* with *Glomus and Acaulospora* the most prevalent. Overall, about 25% more spores were located in the Tambopata National Reserve compared to the Inkaterra Reserve. The level of colonization was almost exactly the same in plants in all three locations and did not vary between the seasons.

In the Tambopata National Reserve morpho-species of arbuscular mycorrhizal fungi dominate: *A) Glomus sp. B) Scutellospora sp. C) Glomus sp. D) y E) Acaulospora sp. F) Acaulospora sp. G) Golmus sp. K) no identificado L) Diversispora sp. H) y I) Acaulospora sp. J) Acaulospora sp. M) y N) Gigaspora sp. N) Gigaspora sp. O) Glomus sp. Q), R) y S) Acaulospora sp.*



© J.Carrasco

Casa Miraflores support update

TReeS has provided some urgently needed support to the indigenous higher education students living at Casa Miraflores, in addition to the support for the El Pilar project. As a result of TReeS initial support and then additional significant support from a German NGO - Ecosolidar - the Casa is now home to up to 26 students. They are studying agro-forestry, agro-pecuario, tourism, teaching, nursing, administration, etc and will play important future roles within their communities and also in conserving the forest. The support consists of -

-a new cooker to replace the one provided by TReeS several years ago which can no longer cope with providing meals each day for up to 26 students;

-new bunk beds, bedding and mosquito nets which will increase the capacity of the Casa to 26 students.

-a ground survey of the plot which will allow FENAMAD to progress plans for another major NGO (*'Land is Life'*) to proceed with plans to fund a much needed complete rebuild of the Casa.

Pre-pandemic a psychology postgraduate very successfully supported the students at the Casa, with some TReeS support. Leonela Ochoa, another psychology postgraduate (self-funding) has now assumed a similar role working with the students to support them to adjust to urban life, with their higher education studies and living communally.

FENAMAD Minamata Conference support

TReeS agreed to cover the cost of medical insurance and Covid travel certificates for the participation of the President of FENAMAD - Julio Cusirichi - and a member of the FENAMAD technical team - Daniel Rodriguez - so that they could attend the UN MINAMATA (COP) Convention on Mercury, in March, in Bali, Indonesia. These costs weren't included in the original budget, so TReeS was asked to provide this last minute small-scale funding.

Mercury contamination in the rivers of Madre de Dios as a result of illegal gold-mining practices is a threat to indigenous life - fish provides a significant percentage of the protein in their diet. Consequently, FENAMAD has made it a priority to attend the MINAMATA (COP) Conventions whenever they are held.

Aerial view of the CN Sonene on the río Sonene (Heath) © FENAMAD

El Pilar agro-forestry project update

John Forrest and Jenny Gomez of TReeS, Alfredo Garcia and Jose Antonio Dumas of FENAMAD plus several students from Casa Miraflores and members of the community of El Pilar recently visited the agro-forestry plot in the indigenous community of El Pilar. The plot is managed by the higher education students of Casa Miraflores with TReeS support.

The students are using the plot to grow a variety of fruits including *pacay*, bananas, limones, *copazú* and mandarinas to supplement their diet combined with some long-term planting of numerous timber species such as *cedro* and *shihuahuaco.*

During the Covid-19 pandemic, it was only possible to make occasional visits to the plot, principally to gather the ripe fruit. However, since April – Gabriel Najar Sonque, a former agronomy student and ex-resident of Casa Miraflores has been employed to maintain the plot, rescue the surviving seedlings and plant some new ones.

The trip began with a short boat trip up the Madre de Dios river passing several artisanal gold-mining operations just a short distance from P.Maldonado. *Juanes* and a *maracuya* refresco were enjoyed by all before the kilometre long trek across the dry river bed to reach the old El Pilar dock. The main channel of the Madre de Dios river has changed direction and the meander on which the El Pilar dock lies is no longer with water in the dry season.

A steep path up the bank lead us to the centre of the community where we found the remains of the old Catholic mission now close to collapse. From there a trail lead us through the forest to the plot passing the almost complete project storehouse.

Gabriel enthusiastically pointed out the range of fruit and timber species that have grown successfully since they were planted 5 years ago as well as all the new seedlings he planted earlier this year. A small area is also devoted to crops such as *yuca* and *camote*.

Once the rains arrive in October, more seedlings will be planted to compliment the existing planting. There are also plans to establish a small *vivero* (nursery) so more tree seedlings can be 'home grown' rather than purchased.

We spent the rest of the morning clearing under-growth, removing the vines attempting to strangle the smaller seedlings and harvesting ripe *pacay*.

Crossing the dried up Madre de Dios meander riverbed @ TReeS

Part of the plot recently cleared of undergrowth @ TReeS

Gabriel Najar Sonque with a recently planted cedro seedling @ TReeS

Harvesting banana @ TReeS

The visiting party @ TReeS

FENAMAD Institutional support

TReeS has provided some small-scale funding to the FENAMAD Technical team so that they can enhance their core management capabilities. This coincides with the receipt of funding from another source to cover the costs of an additional Technical assistant.

FENAMAD functions with a several technical advisors to support the Directorate, including core policies and management (A.Garcia), climate change (C.Galvez) and indigenous peoples living in voluntary isolation (D.Rodriguez).

The advisors ensure that the Directorate are up-to-date on policy matters, government policies, etc and often accompany them to local, regional and national meetings. The Directorate also receives significant support from AIDESEP the umbrella indigenous organisations for all the Indigenous Federations in the Peruvian Amazon.

A.Garcia (yellow shirt) attends Rainforest Foundation Norway meeting in Loreto on behalf of FENAMAD © FENAMAD

Covid in Peru & Madre de Dios update

Peru has continued to keep the Covid-19 pandemic under a significant degree of control, through a range of measures, including the compulsory wearing of double masks in all urban areas and on all transport services despite the arrival of the omicron variant. The number of cases fell to around just 300 per day for most of early 2022 though there was amid-year rise.

The total number of cases now stands at 3.64 million (UK: 22.2m), with 213,600 deaths (UK: 177,900), and the deaths to population ratio is 657 per 100,000 (UK: 266).

For the latest updates visit: **https://data.larepublica.pe/envivo-casos-confirmados-muertes-coronavirus-peru/**

A WHO report states that Peru has had the highest level of excess deaths in the world: 437 per 100,000.[1]

Over 77.9 million (UK: 150m) vaccine doses have been given with 83% (UK: 73%) of the population now fully vaccinated, with a fourth booster jab offered to older and vulnerable people.

Officially, Madre de Dios has recorded over 20,380 cases at a rate of 11,950 per 100,000 people - the 9th worst proportion of cases to population in Peru, and 877 deaths. Indigenous communities appear to have been no worse affected than the wider population something that was not necessarily anticipated at the start of the pandemic.

Over 25% of the population, approx.9 million people, are now registered as living in poverty, greater than the pre-Covid levels with twice as many living in rural areas compared to urban areas. In the case of extreme poverty, the figures are six times greater in rural areas.[2]

1.https://www.who.int/news/item/05-05-2022-14.9-million-excess-deaths-were-associated-with-the-covid-19-pandemic-in-2020-and-2021

2.https://www.inei.gob.pe/prensa/noticias/pobreza-afecto-al-259-de-la-poblacion-del-pais-en-el-ano-2021-13572/

Madre de Dios News

***Brazil-nut exports from Madre de Dios:** a report on brazil-nut exporters in Madre de Dios exporting 64 tonnes of brazil-nuts to the USA: taran-64-toneladas-888207.aspx?fbclid=IwAR0LRV540DciGY3yySo7guWLlRj0kwCvVDjffZTh3Z3ry19QnyWpl21t32Y

***Mercury contamination in Madre de Dios:** a new report on issues relating to the contamination of rivers in Madre de Dios can be found at: https://news.mongabay.com/2022/02/in-a-biodiversity-haven-mining-drives-highest-ever-recorded-levels-of-mercury/

***New Hummingbird Guide:** biology, biogeography, conservation, etc, of hummingbirds including complete checklists with maps, and altitudinal ranges for all 369 extant hummingbird species and lots of photos. Published by Princeton University Press/WILD Guides in collaboration with BirdLife International: https://press.princeton.edu/books/hardcover/9780691182124/hummingbirds

***Neotropical Butterfly Checklist:** a new checklist organised by country. Download it for free at: https://www.butterflycatalogs.com/peru.html

***Revista Gentryana:** the National University of Madre de Dios (UNAMAD) has announced the launch of a new magazine *'Revista Gentryana'* named after the late US botanist Al Gentry. The first edition will be published later this year.

***Interoceanic highway a decade on:** an article that highlights some of the issues surrounding the significant impacts of the highway 11 years after it opened: https://dialogochino.net/es/infraestructura-es/52497-via-interoceanica-sur-tras-una-decada-preocupa-a-las-comunidades/?fbclid=IwAR0T45UzQ0eQdXeG88JYazz0c95UKavnfKhc1K_8WCsi-z5E9CJYPAVloXg

*COICA - Indigenous Peoples Summit

The 11th Indigenous Peoples Summit organised by COICA (Coordinator of Indigenous Organizations of the Amazon Basin) was recently held in Lima. At it, a new report by the RAISG (Amazon Network of Georeferenced Socio-environmental Information) was presented revealing that over 25% of the Amazon rainforest has already been irremediably destroyed. It argues that the collaboration of the Amazonian indigenous peoples will be essential for the survival of the remaining 74% of the forest which is at a point of no return owing to the high rates of deforestation and degradation. The remaining forest, it says, requires immediate protection: https://ymlpcl5.net/6033fugembavaewbhmadaqjmaxauwew/

Members of the FENAMAD team attending the summit © FENAMAD

Peru News

To the surprise of many President Castillo completed his first year in office despite being disowned by his party – Peru Libre, and surviving two attempts by Congress to impeach him. He recently rejected the resignation of the Prime Minister – Hannibal Torres, and replaced several cabinet ministers: there have been six Interior Ministers – the last one lasted just 2 weeks; three Economy ministers; etc since Castillo became President.

However, Congress remains even more unpopular - only 1% currently consider they are doing a good job[1] - with far right parties led by Fuerza Popular (*Fujimoristas*), the largest single party with 24 out of 130 seats, dominating. A new leader of Congress – Lady Camones* – promises few changes. Congress has continued to try to weaken the powers of SINEDU – the higher education regulatory body, but the Constitutional Tribunal rejected the proposals as well as plans to release ex-President Fujimori from jail.

In 2021, the economy bounced back to pre-Covid levels growing by over 13% as a result of a 30% rise in the value of exports, mainly copper. However, as fuel prices rise growth of just 3% is predicted for 2022 and a series of national transport strikes have led to food shortages in major cities, especially Lima.

A new report by Cooperacción states that Primary forest loss in Peru is the third worst in Latin America and the fifth worst in the world.[2]

The latest IPCC report suggests that if global temperatures rise by 1.5℃, there will be a fourfold increase in the number of Peruvians affected by adverse natural events compared to today.[3] However, this year is a La Niña year and much of the country has been affected by temperatures well below the seasonal norms. This includes Madre de Dios which experienced a *friaje* in mid-August as a cold air mass moved up from Patagonia. This led the civil authorities to issue a warning as early morning temperatures were predicted to fall to just 11℃.[4]

Congress has again refused to ratify the Escazu Accord - an international treaty covering the rights of access to information about the environment, public participation in environmental decision-making, environmental justice, and a healthy and sustainable environment for current and future generations - on the basis that Peru has sufficient legal and administrative mechanisms in place to protect the environment and environmental defenders.** This is despite 37 other Latin American and Caribbean countries ratifying it and on-going attacks against environmental defenders, including in Madre de Dios.[5]

FENAMAD and eight other indigenous Federations, and the umbrella organization AIDESEP, recently met with the President to present an 11 point Indigenous Agenda – the first step in a lengthy process that will lead to more detailed discussions with various Ministries.

**forced to resign in the first week of September!*

***the Foreign Minister, in post for only a month, has been forced to resign as a consequence of this and other decision.*

1.https://larepublica.pe/politica/actualidad/2022/08/29/pedro-castillo-solo-8-dice-que-cree-mucho-en-el-gobierno-y-1-en-el-congreso-segun-iep-congreso-poder-judicial-fiscalia-de-la-nacion-medios-de-comunicacion-fuerzas-armadas/

2.https://cooperaccion.org.pe/los-mapas-y-la-informacion-que-deberian-preocuparnos/

3.https://www.ipcc.ch/report/ar6/wg2/

4.https://www.gob.pe/institucion/indeci/noticias/294077-indeci-recomienda-medidas-de-preparacion-ante-el-ingreso-del-decimocuarto-friaje-del-ano

5.https://www.servindi.org/13/07/2022/comision-de-relaciones-exteriores-archiva-nuevamente-acuerdo-de-escazu

Recent information sources linked to Tambopata & Madre de Dios

The following articles, documents, reports and publications about Tambopata and Madre de Dios have recently been sighted.

The following publications can be accessed through the 'MAAP' website: www.maaproject.org

'Amazon Deforestation Hotspots 2021', MAAP 153, March 2022;

'Illegal gold-mining in the Peruvian Amazon', MAAP 154, 2022;

'New and proposed roads across the western Amazon', MAAP 157, 2022;

'Amazon deforestation & fire hotspots', MAAP 158, 2022;

The following publications (in English) were also sighted by TReeS –

'Aboveground forest biomass varies across continents, ecological zones and successional stages: refined IPCC default values for tropical and subtropical forests', D.Rozendaal et al, Environmental Research Letters.No.17, January 2022;

'Murcíelagos de los bosques y zonas agrícolas-ganaderas aledañas a la carretera interoceánica - photo guide', F.Carrasco-Rueda et al, Field Museum, 2022;

'Description of the female of Ctenodontina mochica Lamas, revalidation of Ctenodontina carrerai (Hull) stat. rev., and comments on the taxonomy and distribution of Peruvian species of Ctenodontina Enderlein (Diptera: Asilidae: Asilinae)', P.Sanchez & A.Carmago, Zootaxa 5027, August 2021;

'Evaluating water quality for Amazonian streams along the interoceanic highway, Peru, using macroinvertebrates collected by hand and with leaf packs', B.Sweeney et al, Limnologica 81, January 2020;

'Forestry performance of Bertholletia excelsa Humn. & Bonpl Lecythidaceae under different fertilizers after two years of planting', J.Oliveira Rodrigues et al, Colloquium Agrariae, Vol.18, No.1, Jan-Feb 2022 ;

'Functional susceptibility of tropical forests to climate change', Jesús Aguirre-Gutiérrez et al, Nature Ecology & Evolution, March 2022;

'Primary modes of tree mortality in southwestern Amazon forests', E.de Castro Lima et al, Trees, Forests & Peoples Vol.7, December 2021;

'Relationships between species richness and ecosystem services in Amazonian forests strongly influenced by biogeographical strata and forest types', G.Steur et al, Scientific Reports, 12: 5960, April 2022;

'Tachigali inca (Caesalpinioideae – Leguminosae), a new species of giant tree from Amazonian forests', I.Huamantupa-Chuquimaco et al, Journal of Plant Taxonomy & Geography, 75(2), 2020;

'Treetop: A Shiny-based Application and R package for Extracting Forest Information from LiDAR data for Ecologists and Conservationists', C.Alberto Silva et al, Methods in Ecology & Evolution, Feb.2022;

'Water table depth modulates productivity and biomass across Amazonian forests', T.Sousa et al, Global Ecology & Biogeography, May 2022;

STOP PRESS Logger dies in area frequented by Mashco-Piro living in voluntary isolation

A young logger working for Maderera Canales Tahuamanu SAC has died and a colleague was injured by arrows after a confrontation with a group of Mashco-Piro living in voluntary isolation, along the Tahuamanu river. The incident occurred near the indigenous community of Nueva Oceania while the loggers were fishing. There have been occasional encounters with those living in voluntary isolation for many years in this area and along the upper Las Piedras river - the whole region is the traditional territory of the Mashco-Piro. The Ministry of Culture has just five posts and 17 agents placed around the territory of the uncontacted in Madre de Dios but none near the site of this encounter.

The company is certified by the Forest Stewardship Council but has been involved in longstanding disputes with Nueva Oceania and its activities lie within the proposed extension of the Madre de Dios Territorial Reserve. Furthermore, they recently sued FENAMAD for criticising its operations within the area of the uncontacted during the pandemic, and won.

FENAMAD issued a statement: "We as Fenamad have made it known to the authorities that these events could happen at any moment. There can be no economic activities in PIACI territory, because of the high risks for both and because this goes against the principle of no contact, but also with the issue of the intangibility of territorial reserves because they are home to highly vulnerable humans. We have been reiterating to the competent officials the serious risk implied by the presence of extractive activities and, in general, the presence of third parties in the territories of indigenous peoples living in isolation". Since 1999, FENAMAD have been calling for the Reserva Territorial Madre de Dios, home to 'indigenous peoples living in voluntary isolation and in initial contact' (PIACI), to be enlarged.

In 2006 Peru passed Law No. 28736: 'Law for the protection of indigenous peoples in isolation and initial contact'. The law guarantees the rights of uncontacted tribes to their land and calls for the creation of intangible reserves to protect them and their ways of life.

In July, indigenous leaders met with the National Parks Service (SERNANP) and the Ministry of Culture to press for the protection of indigenous in voluntary isolation. They also met with Michelle Bachelet, the UN High Commissioner for Human Rights, during an official visit to Peru. Further details:

*https://fenamad.com.pe/comunicado/

*https://fenamad.com.pe/madre-de-dios-hallan-cuerpo-de.../

*https://fenamad.com.pe/nuevas-evidencias-de-piaci-en-madre-de-dios/?fbclid=IwAR3P-A4Dm82EAoS8eluZpm7Icw74VE1Pzoj6fdnTnS9t4nOoOBrYj6Omlb4

Mashco-Piro crossing a river © FENAMAD

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