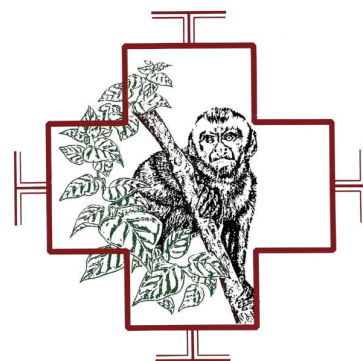


TReeS News No.92

February 2023

Newsletter of the Tambopata Reserve Society (TReeS)



Dear TReeS members,

Welcome to this edition of TReeS News, which focuses on feedback from the major COP27 climate change and COP15 biodiversity summits held in recent weeks, the small grants programme and other TReeS supported activities in Madre de Dios.

This newsletter includes brief details of the 2023 TReeS small grant awards to date (see page 2) and reports from two past recipients (see pages 3-4).

There are also details of recent TReeS funding – some institutional support for FENAMAD; the installation of communications equipment in CN Tayakome, and the El Pilar agro-forestry project, which benefits them.

Alina Schutz, a Fauna Forever researcher provides an insight in to her studies of caiman for her Phd over many months spent in the forest.

Finally, there is news of the republication of 'Salud para Todos', the practical health manual, by FENAMAD. Covid-19 meant that indigenous Amazon communities had to rediscover a degree of self-sufficiency and this included the treatment of all health issues. Once again, interest amongst communities in traditional approaches to health care grew as it had done during the era of the TReeS supported AMETRA 2000 and Centro Ñape projects in the 1990s.

TReeS AGM 2023

The TReeS (Members) AGM will be held on-line on Thursday 27th April 2023 at 6.30pm (UK time)

**Please contact us if you wish to attend at:
treesuk1@gmail.com**

Articles in this issue include:

- COP 27 + COP15
- TReeS small grants 2023 awards.
- TReeS small grants recipient feedback.
- El Pilar agro-forestry project update.
- FENAMAD news.
- Fauna Forever researcher report.
- Madre de Dios & Peru News.

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COP 27 & FENAMAD

COP27, held in Sharm El Sheikh, in Egypt, 6-20th November was attended by more indigenous representatives than any previous COP, including FENAMAD - Julio Cusurichi (President), Alejandro Irey (President COHARYIMA) and Violeta Irey (Treasurer). They attended meetings, making presentations in some of them, including –

'Environmental defenders advancing climate justice: rights, resilience and resistance' – which considered increasing violence against indigenous defenders and those protecting the environment, since most climate-damaging and extractive projects are located in their territories, which means that to achieve climate justice, the rights of defenders must be respected and protected. A number of local environmental defenders have been killed in Madre de Dios in recent years.

'To stop a climate collapse, we need to save the Amazon: community-based monitoring for the protection of indigenous territories towards expected and nationally determined contributions (NDCs)' – which reviewed ways in which indigenous communities are adopting real-time methods of monitoring threats to the forest. FENAMAD is involved in several initiatives which TReeS has supported.

'Indigenous peoples in isolation (PIA) in the Amazon, Gran Chaco & Cerrado: challenges for the protection of their rights and territories' – which looked at the specific issues faced by those living in voluntary isolation, including the Mashco-Piro and other indigenous groups in Madre de Dios.

'Food security, indigenous economy & community monitoring in the face of climate change' – which covered how increasing temperatures and increasing fluctuations in rainfall impacts upon farming. The climate of Madre de Dios is changing and creating additional stresses for farmers.

'Beyond carbon credits: implementation of high integrity nature-based solutions (NBSs) in the southwest Amazon basin' – FENAMAD outlined some initiatives taking place in Madre de Dios.



Julio Cusurichi, President of FENAMAD at a post-COP planning meeting © FENAMAD

COP15

Just prior to Xmas, after four years of negotiations, the COP15 meeting in Montreal, agreed a deal to try to halt the destruction of the Earth's ecosystems and global biodiversity loss by 2030. The agreement – signed by 200 governments but not the USA - is very important given warnings from scientists that human activity is triggering the Earth's sixth mass extinction event.

The main decision is to try to maintain half the planet for the long-term survival of humanity, by committing governments to conserve nearly a third for nature by 2030 while respecting indigenous and traditional territories by creating new protected areas, with an emphasis on the conservation management of wetlands, coral reefs, rainforests and grasslands. Indigenous peoples, representing just 5% of humanity, are seen as playing a crucial role in halting and reversing biodiversity loss because they protect 80% of the Earth's biodiversity in areas such as Madre de Dios.

Government subsidies (\$500bn) for activities which kill wildlife and lead to global warming will stop and a new funding mechanism on digital sequence information will be developed to ensure those countries conserving great biodiversity will receive more reward for the genetic riches they protect. A new fund will be created within the UN's main existing biodiversity financing mechanism – the global environment facility (GEF) – with richer nations contributing \$30bn for biodiversity support by 2030. The new agreement is not legally binding but each government will be expected to produce a national biodiversity plan.

However, the Peruvian Congress is trying to weaken the decree which declares the climate emergency to be of 'national concern'. This will impact on the conservation efforts to provide a 'healthy environment for indigenous peoples' and go against Peru's international climate change commitments.

'Carbon Pirates' ... Indigenous Amazon communities

The Environment section of The Guardian, 21.1.2023, quoted FENAMAD President (Julio Cusirichi) in an article focusing on western companies trying to secure carbon offsetting deals with indigenous groups. The companies are looking for indigenous groups willing to allow new projects on their lands in return for carbon credit payments. Some argue that the payments would help to fund the new protected areas proposed by COP15 which would tie the companies to new climate change commitments. However, the evidence so far suggests that such agreements are rarely fully explained to indigenous groups nor bring all the promised benefits.

COP 27 Feedback

TReeS supporter, Dr Ella Gilbert of Reading University, climate scientist & presenter, attended the COP27 Summit in Sharm El-Sheikh, Egypt.

Ella writes: 'The cryosphere - all of the planet's ice-covered regions - is critical for our climate and for life on Earth. The Arctic and Antarctic regulate the climate by reflecting the sun's energy from the bright, white ice surface, keeping the atmosphere cool. Meanwhile, mountain glaciers such as those in the Peruvian Andes provide drinking water and irrigation for billions of people worldwide.'

At the UN's most recent climate conference - COP27 - the cryosphere seemed far from policy-makers' minds. However, the International Cryosphere Climate Initiative (ICCI) aimed to change that. This was the third year that the ICCI created a 'cryosphere pavilion' to showcase the most up-to-date scientific evidence about the polar regions. It was thanks to tireless work with many governments, including Andean nations like Chile and Peru, that ICCI coordinated the formation of a high-level international negotiating group, 'Ambition on Melting Ice'. This group commits to raising the profile of the cryosphere among international policy-makers and the public in their respective nations, and to increasing ambition for limiting climate change."

Ella's video about her COP27 experiences can be viewed at: <https://www.youtube.com/watch?v=WF5d4eoiS3I>

TReeS small grants 2023 awards.

Over the last 15 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.

This year the award process has been delayed but grants have been awarded so far to -

***Jefone Teves**, a student at the National University of Madre de Dios (UNAMAD), in Puerto Maldonado, in support of his research project titled - '*Evaluación de la diversidad y colonización de micorrizas arbusculares en sitios impactados por la minería aurífera en Madre de Dios*' / *Evaluation of the diversity and colonisation of arbuscular mycorrhizae in sites impacted by gold-mining in Madre de Dios*.

Jefone will investigate the presence, density and level of colonisation of spores of *arbuscular mycorrhizae* in the roots of woody plants growing in various categories of mine waste and in the soils of forest based control plots. He will also assess the diversity of *arbuscular mycorrhizae* using presence and frequency data. Finally, he plans to determine the presence and concentration of *glomalin* in soil samples collected. His sites are located off the Interoceanic highway to the west of Puerto Maldonado, in and close to areas impacted by gold-mining. Awarded: \$1,000

***Leonela Ochoa**, a student at the University of San Marcos (UNMSM), in Lima, in support of her research entitled - '*Representaciones sociales de la violencia psicológica contra la mujer en jóvenes que cursan educación superior provenientes del pueblo indígena Harakbut de Madre de Dios*' / *Social representations of psychological violence against women among young women in higher education from the Harakbut indigenous people of Madre de Dios*.

Leonela will study the values, actions and thoughts associated with psychological violence against women with Harakbut female students, including those living in Casa Miraflores. There is a need for a greater understanding of the ways in which violence is / may be embedded in the social life and social context of young indigenous men and women. Leonela has spent the last year working at Casa Miraflores so she is well placed to undertake this study. Awarded: \$575

Appeal: £25+ to maintain the grants programme.

TReeS small grants feedback

William Ttito, a student at San Antonio de Abad University (UNSAAC), in Cuzco, received a TReeS small grant in 2020 in support of his research project entitled '*Herpetofauna alrededor del río Ponal y los impactos de las actividades extractivas, distrito de Iñambari* / *Herpetofauna around the river Ponal and the impacts of extractive activities, Iñambari district*'.

William writes: "Peru is home to an amazing total of 525 reptile species and 617 amphibian species, most of them found in the Peruvian Amazon.

My study was located on the río Ponal, a small tributary of the río Iñambari, located in central Madre de Dios. The forest along the río Iñambari has been heavily impacted by illegal gold-mining for many years while it has also been encroached upon by agricultural activities and entered by loggers.

Despite this, the Ponal harbours a decent biodiversity of amphibians and reptiles: 75 species were recorded (53 species of amphibians and 22 species of reptiles) in total during the fieldwork. They were distributed across six families of amphibians – *Bufonidae* (2 species), *Hylidae* (23 species), *Leptodactylidae* (10 species), *Strobomantidae* (11 species), *Dendrobatidae* (1 species), *Microhylidae* (4 species).

In addition, 12 families of reptiles were encountered: *Alligatoridae* (1 species), *Dactyloidae* (2 species), *Gymnophthalmidae* (2 species), *Teiidae* (2 species), *Tropiduridae* (1 species), *Scincidae* (1 species), *Sphaerodactylidae* (1 species), *Tropiduridae* (2 species), *Boidae* (2 species), *Elapidae* (1 species), *Colubridae* (5 species) and *Viperidae* (2 species).

An area of conserved forest was home to the greatest diversity of amphibians with 48 species, in the area that had experienced selective logging 37 species were found, while in the area converted to agriculture 15 species were recorded and, finally, in the area affected by illegal mining 12 amphibian species were found.

In terms of reptiles, the conserved forest hosted 14 species, the selectively logged forest 12 species, the illegally mined area 2 species and, finally, the agriculture area recorded a single species.

The impacts of illegal mining and agriculture reduced the diversity of amphibians and reptiles to just 16% of the expected numbers.

The most adapted were the *Leptodactylidae* family, some *hylids* such as *Scinax hylids* appear to have adapted well to the devastating changes brought to the forest by agriculture, logging and mining. On the other hand, the families *Strabomantidae* and *Microhylidae* appeared to be much more susceptible to the changes. They were only recorded in conserved forest and eventually, after much searching, in the selectively logged forest.

Despite the recording of a decent number of species, the population densities of both amphibian and reptile species were very low, with only seven species recorded in any abundance.

This research helps to create a greater understanding of the impacts on amphibians and reptiles of forest clearance for mining, logging and agriculture which are common in this area of central Madre de Dios."



The rio Ponal © W.Ttito



Scinax ictericus © W.Ttito



Ameerega trivittata © W.Ttito



The night survey team © W.Ttito

TReeS small grants feedback continued

Sonlay Tomas & Sofia Vasquez, students at the University of Engineering and Technology (UTEC), in Lima, received a grant in 2022 to support their research project entitled – *‘Producción de hidrogeles de celulosa bacteriana como opción mejorada para la remoción de contaminantes derivados de la minería aurífera de pequeña escala en Madre de Dios / Production of bacterial cellulose hydrogels as an improved option for the removal of pollutants derived from small-scale gold mining in Madre de Dios.’*

Sonaly writes: ‘In Madre de Dios, artisanal and small-scale gold mining (ASM) is one of the main reasons why aquatic ecosystems are contaminated with heavy metals, not only mercury, but also cadmium and lead, among others. These metallic compounds can be found in alluvial sediments whose concentration exceeds the limits established by the US EPA. Also, lead levels in abandoned mining ponds can exceed international Environmental Quality Standards (EQS) such as those located in community’s such as Tres Islas. Fish in the area progressively accumulate mercury in their tissues and eventually, are consumed by the indigenous populations and communities living along the river banks.

The removal of these toxic compounds from effluents, wastewater and sediments has become an important issue. In view of this, strategies have been implemented to treat contaminated water using a variety of technologies, such as reverse osmosis, ion exchange and electrodialysis. However, they have low removal rates due to variables such as the concentration of organic and inorganic components, which clog the pores of the filters. Alternatively, materials have been developed from inorganic compounds to treat polluted water, but many of these have been found to be potentially toxic. Consequently, there is a need to develop alternative technologies for the treatment of polluted effluents that are more sustainable and do not pose a potential additional risk to human health and the environment.

Metallic compounds present in contaminated water tend to bioaccumulate in living systems, including humans, affecting different organs in the body. For example, cadmium and lead poisoning causes damage to the gastrointestinal and renal systems while mercury exposure results in respiratory system disorders.. Furthermore, river sediments can also be loaded with heavy metals. These can affect other organisms living near rivers or lakes which then enter the food chain.

The principal objective of this work is to develop and validate a methodology for the production of nano-cellulose hydrogels from bacterial cellulose to be used in the treatment of effluents and sediments contaminated with heavy metals. The first stages of the research are complete and bacterial cellulose has been produced from *Acetobacter xylinum* cultures and methods for the functionalisation of the nano-cellulose and the production of hydrogels, which focus on the adsorption of heavy metals, are being developed.”



Working with samples in the lab. © S.Tomas

El Pilar agro-forestry project update

The current political and economic crisis means that the El Pilar agro-forestry initiative has an important role to play in supporting the students living in Casa Miraflores. They have continued to visit the plot to maintain it and harvest the produce grown there.

TReeS has agreed to provide further support in 2023 to enable the plot to be properly maintained, further tree saplings to be planted, the storehouse to be completed and additional tools and clothing to be purchased.

There will be a 50% increase in the number of students living in the new Casa Miraflores so the project is likely to play an important role.

This year, the Forestry engineer employed by the project will investigate the options to promote such a project in another indigenous community near to Puerto Maldonado.



Students undertake maintenance at the plot @ FENAMAD



Harvesting bananas to take back to Casa Miraflores @ FENAMAD



Students help to clear undergrowth around the seedlings @ FENAMAD

FENAMAD Institutional support

FENAMAD XIX Congress

TReeS has made a small grant to the XIX FENAMAD Congress, a biannual event at which elections are held and institutional plans approved. Representatives will attend from 37 native communities spread across Madre de Dios, some of whom have to travel for over a week. The TReeS funding will enable several more delegates to attend.

STOP PRESS - the current disruption in Peru has led to the postponement of the Congress as many delegates would be unable to reach Puerto Maldonado.

COHARYIMA support

Coharyima have completed the lengthy process of buying and installing a solar panel kit and communications equipment in Tayakome, a native community located within Manu National Park. To transport the equipment from P.Maldonado to Tayakome took nearly three weeks. The installation, supported by TReeS, will enable Tayakome and other native communities located within the Park to restore communications with representative organisations such as Coharyima and FENAMAD as well as external organisations and institutions in case of any external threats.



Installation of solar kit equipment in CN Tayakome © FENAMAD

Covid in Peru & Madre de Dios update

Peru has continued to keep the Covid-19 pandemic under control though it is no longer compulsory to wear masks in public places and on transport services. The number of cases ended 2022 at around 500 per day (UK: 900) - there was fifth mini-peak in December.

The total number of cases now stands at 4.48 million (UK: 22.2m), with 218,650 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/>

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 21,300 cases at a rate of 12,500 per 100,000 people - the 9th worst proportion of cases to population, and 888 deaths at 521 per 100,000 people - the 14th worst proportion in Peru.

Madre de Dios News

***Guide to taricaya (river turtles) management:** The Frankfurt Zoological Society and SERNANP (Peru's National Park authority) have published a new guide to managing river turtles in forest concessions in the Alto Purus and Madre de Dios Territorial Reserve -

https://designrr.page/?id=247644&token=806189771&type=FP&h=7378&fbclid=IwAR0z4ShQFwi4yll2JPm_NEuv29SVqfzr3PE492969GL8iFiju9B-J67WJ2M

‘Roads, Rice And Ranches’: scientific journalist Judith Westveer, a creative academic who likes to tell stories about nature, has produced an interesting presentation for the ACEER Foundation about the impacts of road building and ranching in Madre de Dios.

<https://aceer.org/roads-rice-and-ranches/?fbclid=IwAR15XPuc81Sw4-xvmKDTm45zIBzXOajuDbtHcaqskZXb8aK8Z5CsqW0MGtU>

***Illegal gold-mining in the Amazon:** a cartographic analysis suggests that 28% of the gold ‘mined’ in Peru is from illegal sources, a significant amount of it from Madre de Dios - <https://www.facebook.com/theamazonwewant>

On a more positive note, the conviction of illegal gold-miners in Madre de Dios is reported -

<https://www.actualidadambiental.pe/mineros-ilegales-8-anos-de-prision/>

And, also on a slightly more positive note jewelry made from gold mined in madre de Dios without the use of mercury and from traceable mining sources as displayed at the 2022 New York Jewelry week -

<https://elcomercio.pe/viu/moda/joyas-joyas-de-oro-peruano-triunfan-en-la-semana-de-la-joyeria-de-nueva-york-joyeria-mineria-sostenibilidad-medio-ambiente-moda-noticia-noticia/#:~:text=Durante%20la%20Semana%20de%20la,base%20de%20oro%20peruano%20sostenible>

Amazon Fires monitoring app

A concise review of the 2022 Amazon fire season, based on unique data from a real-time Amazon Fires Monitoring app. In a novel technique, the app combines data from the atmosphere (aerosol emissions in smoke) and the ground (heat anomaly alerts) to quickly and precisely detect major fires. In short, the app filters out smaller fires and highlights the larger fires burning abundant biomass.

In 2022, 72% of the major fires recorded were in the Brazilian Amazon, 15% in the Bolivian Amazon and 12% in the Peruvian Amazon. There were slightly fewer major fires in 2022 than in 2020 & 2021 -

<https://luciovilla.users.earthengine.app/view/monitoring-amazon-fires>



Protesters block the Interoceanic highway bridge over the rio Madre de Dios in Puerto Maldonado © FENAMAD

Fauna Forever field researcher reports

Alina Schulz, writes about her experiences: “Right now I am waiting for my flight to take off for my next jungle adventure. But let me first explain how I got here:

I have just spent six months in Madre de Dios doing field research for my master thesis in collaboration with Fauna Forever, without which I wouldn't be where I am now, professionally and personally. Not only did I have great teachers through all taxa, but I also made friends for life. Both have helped me develop and expand my knowledge in conservation and have laid my foundation for my future career.

With Chris Ketola, head field research coordinator of Fauna Forever, by my side we decided to study the movement behaviour of caimans. As if the work in the Amazon was not hard enough, we had chosen an elusive species: the White Caiman (*Caiman crocodilus*) and the Black Caiman (*Melanosuchus niger*). After all the challenges we faced on this project - some expected, and some totally unexpected - we were able to tag four caimans with satellite telemetry: GPS and VHF. We used GPS to record the locations of the individuals. First, GPS is better for elusive animals, and second, we wouldn't influence the behaviour of individuals by coming too close to record the location and GPS is much more accurate in comparison to VHF triangulation. But why did we also use VHF? To facilitate the relocation of the animals at the end of the study.

The results are a first insight into movement behaviour of both species in the Amazon. Movement data for both species showed a tendency for males to have larger home ranges than females. No significant differences in home range size could be determined between the two species, however this could be due to a small sample size or differing age classes. Results indicate that Black Caimans move more frequently than White Caimans each day. Analyses indicated that time of day, temperature and microhabitat were the variables that most influenced the movement of caimans. They generally moved more during the night, with a significant correlation found between higher night-time temperatures and movement patterns during the night. However, on occasions daytime movement was higher, likely in response to higher temperatures and the need to cool their bodies down inside the forest cover.

Finally, the high-resolution of the GPS tag system we deployed allowed us to examine the movement patterns of caimans on an hourly basis. The longest period of movement for tagged caimans was during the initial hours after dawn, behaviour that may correspond to hunting activity or movement to diurnal resting areas. This study provides detailed information on the movement behaviour of two caiman species in the Amazon. Our knowledge is still too limited to adequately design and implement long-term conservation measures for these two species. To protect caimans in the long term, governments across countries and scientists from all over Amazonia must work together.”

Alina Schulz

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Instagram: @alina_schulzx



Fig.2 Holding a female Black Caiman with the telemetry tags on its head before its release © Alina Schulz



Fig.1 Subadult male Black caiman with GPS and VHF tag. Left: Black caiman with the VHF tag in the middle of the head and on the right the black GPS tag. The head width is 5.1cm. Right: Black caiman with the epoxy cover over the tags and antennas sticking out of the epoxy. © A.Schulz

Peru News

In September the head of Congress - Lady Camones - was replaced by an ex-military leader - Jose Williams - closely connected to a civil war massacre in the 1990s. In local elections, a far right candidate became mayor of Lima and an ex-miner was re-elected as governor of Madre de Dios.

President Castillo's relationship with Congress further deteriorated during the Autumn - he was prevented from travelling abroad to meet the UN, EU and the Pope. He called in the Organization of American States to analyse the political situation saying 'he feared a coup' as Congress arranged to impeach him for a third time. The OAS report strongly encouraged a truce and dialogue between parties but largely fell on deaf ears.

Finally, in December, he attempted an '*autogolpe*' (coup) but lacked the support from Congress and the military that President Fujimori had relied on during his successful '*autogolpe*' in 1992, and was removed from office. During his 18 month tenure he appointed five cabinets and over 80 ministers. Originally, a primary school teacher and trade union leader, he struggled with the demands of the role and was increasingly manipulated by others. Castillo now joins eight of the last nine Presidents facing trial for corruption.

Castillo was replaced by Vice-President Dina Boularte - the seventh President since 2016 and the first woman. However, she has faced huge opposition from indigenous peoples across Peru who had liked Castillo's election call of '*No more poor people in a rich country*' and seen him as one of their own.

The opposition to Boularte has been violent, especially in the southern sierra with at least 60 deaths and thousands injured in protests as a result of the governments response. In the worst incident 18 died when trying to occupy Juliaca airport. Protesters are calling for the immediate removal of Boularte and new elections, rejecting her plan to bring them forward by only a year to April 2024. Support for Congress (9%) has almost evaporated¹ but they are unwilling to agree to new elections as many would lose their immunity from prosecution for a range of offences.

After many tourists were evacuated from Aguas Calientes, due to damage to the railway lines, the government closed

Machu Picchu in effect shutting down the tourist industry in the Cusco region, leaving approx.100,000 people without employment. A further 15,000 jobs in the mining sector have also been affected. Many roads have been blocked for days including the Inter-oceanic highway through Puerto Maldonado which was blocked for 32 days severely impacting fuel, food supplies and other essentials in the city.

The unrest has only further increased the resentment between the rural indigenous poor and the governing elite, in Lima. There have been widespread, large-scale marches in many cities - FENAMAD has participated in a series of peaceful marches in Puerto Maldonado, but they have often turned violent elsewhere. Amazonian indigenous organisations have united to call for the resignation of Boularte.

Peru has also been hit by the rise in global inflation with the rate in 2022 hitting a 25 year peak at 7.5%². The numbers living in poverty are expected to rise back up towards 30% during 2023.

In early November a tourist boat on the rio Marañon, in the northern Peruvian Amazon, with 70 passengers - many of them foreign - was taken hostage by locals protesting at oil spills impacting upon their water supply. After a week of negotiations the matter was resolved and the passengers released.

The UK government has removed the visa requirement for Peruvians coming to the UK.

STOP PRESS - a 60-day state of emergency has been declared in the departments of Apurimac, Arequipa, Cusco, Madre de Dios, Moquegua, Puno, and Tacna. A curfew is also in place in Puno and there are restrictions affecting travel on many main roads.

1.<https://elpais.com/internacional/2023-01-26/una-encuesta-refleja-la-elevada-desaprobacion-de-dina-boularte-el-71-de-los-peruanos-rechaza-su-gestion.html>

2.<https://www.statista.com/statistics/459336/inflation-rate-in-peru/>

Thanks to the Peru Support Group: www.perusupportgroup.org.uk

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 Tipping Point – Where Are We? ', MAAP 164, 2022;

*'Fuegos en la Amazonía 2022', MAAP 168, 2022;

*'Deforestation in Mining Corridor of Peruvian Amazon (2021-2022)', MAAP 171, 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;

*'Estimates of jaguar (*Panthera onca*) population density in the South American Greater Madidi-Tambopata Landscape', G.M.Ayala et al, Revista de Ciencias Ambientales, Vol.56(2), July 2022;

*'Factors influencing terrestriality in primates of the Americas and Madagascar', T.Eppley et al, PNAS 2022, Vol. 119, No.42, October 2022;

*'Geographic patterns of tree dispersal modes in Amazonia and their ecological correlates', D.Correa et al, Global Ecology & Biogeography, Sept.2022;

*'Harpy eagles (*Harpia harpyja*) nesting at Refugio Amazonas, Tambopata, Peru feed on abundant disturbance-tolerant species', M.Bowler et al, Food Webs 24, July 2020;

*'Informe del inventario nacional forestal y de fauna silvestre para el depot. de Madre de Dios', SERFOR, May 2022;

*'Variation of non-structural carbohydrates across the fast-slow continuum in Amazon Forest canopy trees', C.Signori-Muller et al, Functional Ecology Vol.36, 2022;

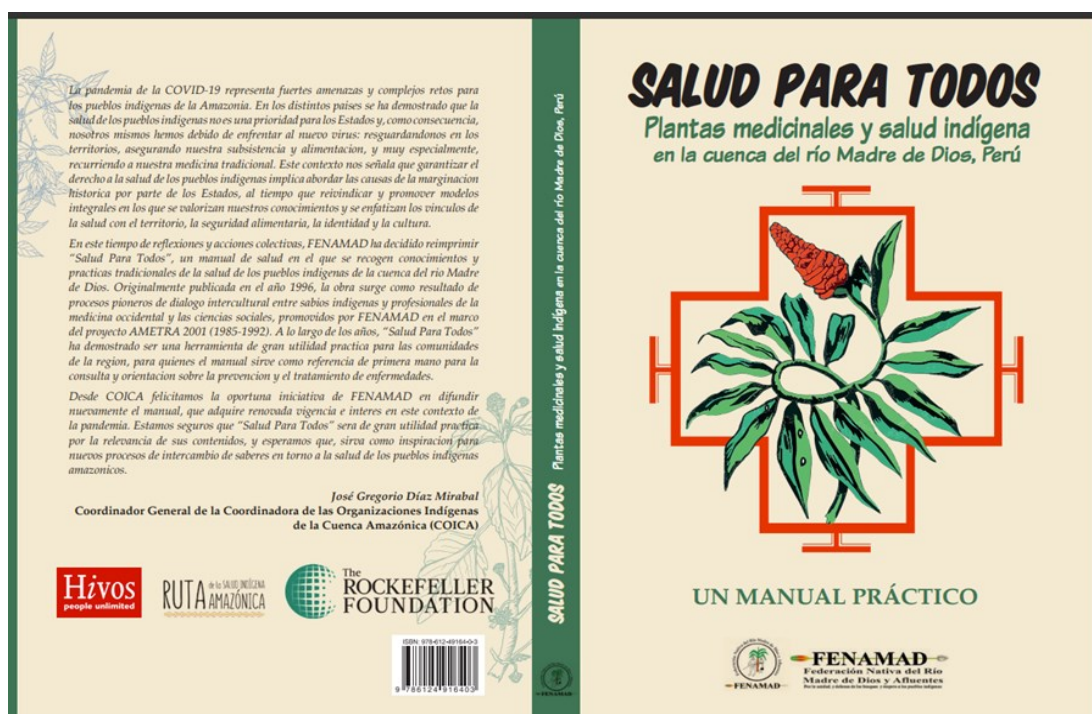
*'Water table depth modulates productivity and biomass across Amazonian forests', T.Sousa et al, Global Ecology & Biogeography, May 2022;

'Salud para Todos' republished

FENAMAD has reprinted "*Salud Para Todos*" ('Health for All'), the practical health manual that brings together the traditional health knowledge and practices of the indigenous peoples of the Madre de Dios river basin. The manual aims to reclaim and promote integral models in which indigenous knowledge is valued and the links between health and territory, food security, identity and culture are emphasised. The new edition contains some additional and revised content.

Originally published in 1996, as a result of a pioneering process of intercultural dialogue between indigenous scholars and professionals from Western medicine and the social sciences, promoted by FENAMAD within the framework of the AMETRA 2001 project (1985-1992) and the subsequent Centro Nape project, both of which received significant funding from TReeS. Over the years, "*Salud Para Todos*" has proved to be a very useful practical tool for the communities of the region, for whom the manual serves as a first-hand reference for consultation and guidance on the prevention and treatment of diseases.

The manual has acquired renewed relevance and interest in this context of the Covid-19 pandemic during which the State provided little support and indigenous peoples had to draw up their own strategies to face the pandemic. The hope is that "*Salud Para Todos*" will continue to be of great practical use due to the relevance of its contents, and that it will serve as an inspiration for new processes of exchange of knowledge about the health of the Amazonian indigenous peoples.



Termination of postal correspondence option

The cost of having the TReeS PO Box and the extremely restricted opening hours at Royal Mail sorting offices has left us with no other option but to terminate our PO Box address from the end of May 2023.

A consequence of this is that it is going to be more difficult for us to receive membership subscriptions and donations, however, we encourage members to pay their subscriptions by standing order and, of course, payments can nowadays be made easily by bank transfer - please see our bank details stated below.

However, if you would still like to post anything to us then please send us an email and we will advise an address to which cheques can be posted.

TReeS committee

We would be interested to hear from anyone with a passion for tropical rainforests, biodiversity, Peru and the Amazon but, most importantly, with a range of administrative skills and a little time to assist us with the running of TReeS.

A good knowledge of the Spanish language would also be an advantage.

Please send details of your interest and appropriate skills and background to - treesuk1@gmail.com

TReeS is UK registered charity no. 298054

TReeS General enquiries

To receive the TReeS Newsletter by email, purchase TReeS merchandise, volunteer, etc, please get in touch at: treesuk1@gmail.com

Details of TReeS merchandise can be found on the website: www.tambopata.org.uk

TReeS Membership

Annual membership fees (£15) are due **1st January** each year. On-line payments can be made direct to the TReeS bank account at - **Lloyds Bank PLC**

Sort code: **30 99 83** Account no. **00574637**

Until May 2023, cheques, made out to 'TReeS', can be posted to - **P.O.Box 33153, London NW3 4DR**