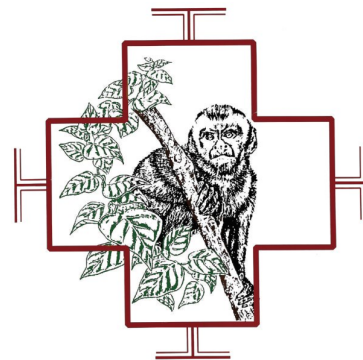


TReeS News No.93

August 2023

Newsletter of the Tambopata Reserve Society (TReeS)



Dear TReeS members,

Welcome to this edition of TReeS News which focuses on a recent visit to the Tambopata area by TReeS UK representative John Forrest and the projects currently supported by TReeS. TReeS was warmly welcomed by all the organisations visited and thanked for its various contributions to long-term conservation efforts in Madre de Dios.

This newsletter contains further details of the 2023 small grant awards to Peruvian University students so that they are able to undertake field research for their thesis to enable them to complete their degrees (see page 2) and reports from two past recipients (see page 3).

There is also feedback from other recent TReeS funding – some institutional support for FENAMAD and COHARYIMA and the El Pilar agro-forestry project, which benefits the young indigenous professionals of the future living in Casa Miraflores.

There is an update on deforestation within Amazonia and specifically, Peru. Now that President Lula has returned to power in Brazil there is some optimism that the rate of deforestation will reduce there. However, it is by no means certain that the current regime in power in Peru will follow his lead.

There is also an update on a potential threat though for now it seems to have evaporated, to indigenous peoples choosing to live in voluntary isolation of which there is at least one significant group in Madre de Dios.

Finally, there is news of a new project to provide an additional animal welfare facility in the Puerto Maldonado area to which TReeS members might like to contribute.

Articles in this issue include:

- New TReeS FENAMAD agreement.
 - Deforestation update.
 - TReeS small grants awarded in 2023.
 - TReeS small grants recipient feedback.
 - El Pilar agro-forestry & Casa Miraflores updates.
 - PIACI update.
 - Amazon, Madre de Dios & Peru news.
 - New wildlife care centre / education project.
- STOP PRESS:** Casa Miraflores maloca roof appeal.

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TReeS signs new agreement with FENAMAD

TReeS has signed a new agreement with the Federation of native peoples of Madre de Dios (FENAMAD) to support initiatives in a variety of areas. John Forrest of TReeS UK recently visited Puerto Maldonado to meet members of the new FENAMAD directorate and sign the agreement.

During the visit TReeS was presented with copies of the new edition of '*Salud para todos*' ('Health for All'), the practical health manual that brings together traditional knowledge and practices of the indigenous peoples of the Madre de Dios river basin. The manual aims to reclaim and value indigenous knowledge and emphasise the links between health and territory, food security, identity and culture.

The manual was originally published in the mid-1990s as a result of a pioneering process of intercultural dialogue between indigenous scholars and professionals from western medicine and social sciences, promoted by FENAMAD within the framework of the AMETRA 2001 project (1985-1992) and the subsequent Centro Ñape project, both of which received major funding from TReeS. It serves as a first-hand reference for consultation and guidance on the prevention and treatment of diseases in native communities. The manual acquired renewed relevance during the Covid-19 pandemic during which the State provided little support and indigenous peoples had to draw on their own traditional knowledge and strategies to face the pandemic. The hope is that "*Salud Para Todos*" will continue to be of practical use due to the relevance of its contents, and that it will inspire further exchanges of knowledge about the health of Amazonian indigenous peoples.

TReeS has funded the distribution of the new edition of the manual.



J. Forrest (TReeS UK) is presented with copies of '*Salud para Todos*' by members of the new FENAMAD directorate © TReeS

Deforestation update

At COP26, held in Glasgow, in 2021, pledges were made by almost all tropical forest nations (not Bolivia) to halt all deforestation by 2030 but evidence from 2022 suggests that these commitments are not being fulfilled.

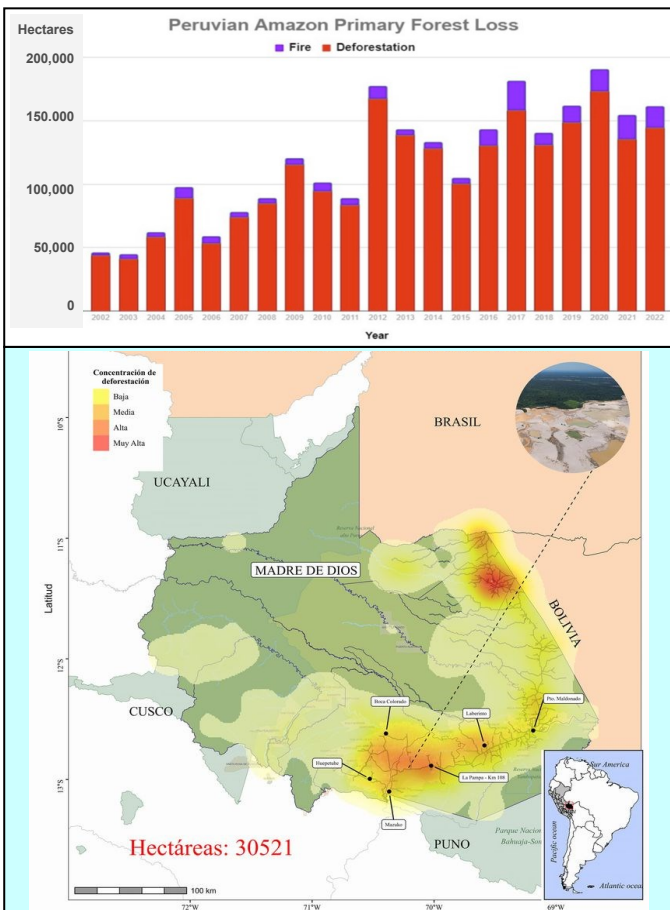
In 2022, 3.6% more tropical rainforest (4 million hecs) was lost globally, including 10% more primary forest than in 2021. This was 1 million hecs more than the level needed for the COP26 pledges to be met.

In the Amazon, 21% more tropical forest (1.98 million hecs) was deforested in 2022 compared to 2021. The vast majority of the deforestation occurred in Brazil (72.8%), followed by Bolivia (12.4%), Peru (7.3%), and Colombia (4.9%). The deforestation in Bolivia was the highest on record, and in Brazil the highest since 2016. Fires impacted an additional 491,223 hecs of primary forest - a 1.6% increase on 2021, and the fourth highest on record (just behind the severe fire seasons of 2016, 2017 & 2020). In total, 2.47 million hectares of primary forest were impacted by deforestation and fire - the third highest on record, only behind the post-El Niño years of 2016 and 2017.

In 2022, the Peruvian Amazon lost 144,682 hectares of primary forest to deforestation. Fires directly impacted an additional 16,408 hectares. Deforestation increased 6.7% from 2021, and was the fifth highest on record - the chaotic political situation may have helped to facilitate it. Fire impact fell from 2021, but was still relatively high. The deforestation mainly occurred in the central (Ucayali) and southern (Madre de Dios) Amazon. In Ucayali and northern Madre de Dios, the rapid deforestation resulted principally from the activities of religious groups such as the Mennonites. In Madre de Dios, gold-mining linked deforestation continues to be an issue. There is still along way to go to challenging and changing attitudes towards forest conservation!

<https://www.cifor.org/knowledge/publication/8925>

<https://maaproject.org>



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 three further grants were awarded in addition to the two referred to in the last newsletter as follows -

***Jordy Aguirre**, a student at the National University of Madre de Dios (UNAMAD), in Puerto Maldonado, in support of his research project titled - '*Caracterización morfológica de árboles de castaña (Bertholletia excelsa H.B.K) en un bosque de terraza alta, del distrito Las Piedras* / *Morphological characterisation of brazil-nut trees (Bertholletia excelsa H.B.K) in a high terrace forest in Las Piedras*'.

Jordy's study will take place at the CRIBATAMAD (Center for Reference and Interpretation of Biodiversity in high-terrace Amazonian forests,) run by UNAMAD at the Fundo El Bosque. UNAMAD last conducted a partial survey of the brazil-nut trees there in 2010. Jordy aims to study the distribution of all the brazil-nut trees in the plot, updating the database as he does so, and their yield in order to obtain a better idea of the productivity of brazil-nut trees growing in high terrace forest.

Awarded: \$1,000

***Corazon Salcedo**, a student at the National University of Madre de Dios (UNAMAD), in Puerto Maldonado, in support of her research entitled - '*Evaluación de la dinámica de un bosque de terraza alta sin incidencia antrópica, Tambopata, 2012-2023* / *Assessment of the dynamics of a high terrace forest without anthropogenic impact, Tambopata, 2012-2023*'.

Corazon will take place at CRIBATAMAD and will focus on the study of forest dynamics and structure through the monitoring of vegetation, climate and soils. She hopes to make recommendations with respect to the future management of such areas of forest which have not been subjected to human impacts.

Awarded: \$975

***Elton Torres**, a student at the National University of Madre de Dios (UNAMAD), in Puerto Maldonado, in support of his research project titled - '*Determinar el potencial dendrocronológico de cinco especies forestales en la provincia de Tambopata* / *To determine the dendrochronological potential of five forest species in the Province of the Tambopata*'.

Elton will study the characteristics of five specific tree species and will also conduct his research at the CRIBATAMAD. He plans to investigate their anatomy, dendrology and also densitometry through x-rays, to determine the dendrochronological potential of *Quina amazonica* (Coloradillo), *Pourouma tomentosa* (Uvilla), *Siparuna decipiens* (Palo Agua), *Rinoreaocarpus ulei* (Blanquillo) and *Pausandra trianae*. The investigation aims to better understand the structure, growth and age of these forest tree species.

Awarded: \$1,000

Appeal: £25+ to fund the 2024 grants programme.

Many thanks to all those who have already contributed.

Recent deforestation in Madre de Dios (2019 - 30,521 hectares): concentrated in the gold-mining areas in the south and new religious colonies in the north © SERFOR

TReeS small grants feedback

Maria Garcia Veramatus - a student at the University of Engineering & Technology (UTEC), in Lima, received a TReeS grant in 2022 in support of her research entitled: '*Protocolo, criterios y recomendaciones para el monitoreo de los niveles de mercurio en consumidores primarios de pozas mineras abandonadas en Madre de Dios / Protocols, criteria and recommendations for monitoring the levels of mercury in primary consumers of abandoned mining pits in'*'. She also received a grant from CINCIA (Centro de Innovación Científica Amazónica) to support her study.

Marcia writes: "In my study, a higher concentration of THg (total mercury) was found in macroinvertebrates (primary consumers) from the mining ponds in contrast to those from the control sites: natural lakes. This indicates that the proposed methodology is able to differentiate between the concentration of mercury at the macroinvertebrate level between the two scenarios, and therefore, it is feasible to establish monitoring programmes that estimate the magnitude of the presence of mercury in the biological component of abandoned mining ponds in Madre de Dios.

A total of 488 macroinvertebrates were collected at the four study sites. For analysis purposes, twelve taxonomic categories were considered: four groups of macroinvertebrates were identified to order level and eight groups were identified to family level. The 488 macroinvertebrate individuals were analysed for THg in 42 samples, of which 35 (83%) exceeded the detection limit of the WFD: seven samples from lake Tupac, six from lake El Triunfo, nine from the Inundación pond and thirteen from the the Shansho pond.

The twelve categories of macroinvertebrates sampled in the study were examined for their quality as bioindicators of mercury contamination in aquatic ecosystems impacted by mining in Madre de Dios with the Pfam (prioritization) equation. Macroinvertebrates of the family Belostomatidae and of the order Odonata are most relevant for monitoring mercury levels in the food web by comparing water bodies of different origin (mining and non-mining) given that the values of the prioritisation equation (Pfam) for these taxonomic categories was the highest. In addition, the order Odonata comprises three families that obtained a high level of prioritisation (Pfam) and their characteristics are similar, so their use in monitoring programmes is ideal.

In May 2023, part of the research results were presented at the V Argentine Environment Congress, held in Potrero de los Funes, San Luis. The experience was very enriching, especially because it favoured the exchange of knowledge with other speakers. The presentation of the research was awarded a prize by the Argentinean Society of Environmental Science and Technology (SACyTA) as one of the best papers presented.'



Above: Photos from the field © M.Garcia



Below: Examining soil samples for macroinvertebrates © B.Ponce de Leon

***Beatriz Ponce de Leon Chucuya** - a student at UNAMAD, received a TReeS small grant in 2022 in support of her research project entitled: '*La macrofauna como indicadores de la calidad del suelo en zonas mineras contaminadas con metales pesados en el sureste de la Amazonia Peruana / Macrofauna as indicators of soil quality in mining areas contaminated with heavy metals in the SE Peruvian Amazon.*'

Beatriz writes: 'I looked at using edaphic macrofauna as a biological indicator of the state of soil conservation / disturbance in the area degraded by mining in the SE Peruvian Amazon. For this purpose, the established sampling method "Soil Biology and Fertility (TSBF) Program" was used. The macro-invertebrate community of the soil was estimated in three representative zones based on different scales of mining activity found in: Laberinto, Huepetuhe and on the river Madre de Dios.



Eighteen orders of macroinvertebrate were observed per square meter at the three study zones. The orders with the greatest numbers were Lepidoptera and Hymenopterans. The species that were present in higher proportion at greater depth were beetles, ants and earthworms, with 18, 23 and 8 species respectively. The highest total macroinvertebrate biomass was observed in the Madre de Dios zone, with an average of 0.469gr per m² then the Huepetuhe zone with 0.493gr per m². A higher average Shannon diversity index was observed in the Madre de Dios zone, with values of 1.40, followed by Huepetuhe with an average of 1.42. This can be explained by the intensity of mining activity in the zones, which impacts the abundance and diversity of macroinvertebrates. The highest number of individuals was found in the Madre de Dios study zone with an average of 20.5 individuals per m², then by the Huepetuhe zone with on average 16.5 individuals per m² a significant difference between the zones.'

Rumbo a El Pilar

On behalf of TReeS UK, John Forrest recently visited the agro-forestry project of Casa Miraflores in the native community of El Pilar, a short distance upriver from Puerto Maldonado, with Aide Chaeta Saavedra, the FENAMAD director of Education; Katya Mallea, project co-ordinator; some of the Casa Miraflores students and other FENAMAD associates.

A few years ago El Pilar donated the use of a two hectare plot to Casa Miraflores and TReeS agreed to fund the project. The plot would be planted with a range of fruit tree varieties and an increasing number and variety of timber species. Crops could also be grown in the short-term to enhance the students diet as the trees mature and the area progressively converts to forest.

The visit began with a short canoe trip upriver from the La Pastora dock, in P.Maldonado. The El Pilar dock is not accessible by boat at this time of year so the dried up river bed has to be crossed on foot, however, a final quebrada crossing on a couple of tree trunks provided a challenging test of balance.

A 1km trail leads down from the community to the plot where, after a morning spent removing the *maleza* - weeds - to allow the fruit and timber seedlings to continue to flourish, everyone enjoyed *juanes* for lunch.

By the time we returned to the boat, the river had risen and the previously dry channel now had to be waded.

Yuca harvest - during the visit to the students insisted on harvesting some yuca to take back to Casa Miraflores. A small area of the plot at El Pilar was planted a year ago with white yuca (*Manihot esculenta*), a particular staple and favourite of the Matsigenka students.



Seedlings now well established in the plot © TReeS



Students harvesting yuca @ TReeS

The plants with thicker stems were ready for harvesting though *picuros* (paca) & *añujes* (agoutis) had already begun to dig down to feast on the roots. The students first cleared away the branches and stems of the largest plants, those with thicker stems. They then tried to pull up the whole plant including the edible roots. If this failed, then they had to dig down to extract the roots.

The roots are cylindrical/oblong in shape, can reach up to a metre in length and 10cms in diameter, and grow in groups at the base of the stem of the plant. The roots harvested were much smaller but several kilos were successfully collected to take back to the Casa.



Casa Miraflores students, members of FENAMAD and the community of El Pilar @ TReeS

Casa Miraflores

John Forrest (TReeS UK) visited Casa Miraflores, the FENAMAD home for higher education indigenous students in Puerto Maldonado. TReeS has supported the Casa in various ways with small-scale funding for several years which has enabled FENAMAD to attract support from other larger NGOs, including one which will finance the rebuilding of the house.

The house is currently home to 28 students though it was built for far fewer and there is a waiting list to move in. Students come from all over Madre de Dios, from a range of ethnic groups and communities, including communities deep inside Manu National Park. The house is being maintained for now while everything is put in order to enable the rebuilding to proceed.

A maloca lies at the centre of the house and is the fulcrum of activities acting as a study space, dining-room, meeting place, handicraft workshop, It is planned to retain the maloca in the new build.

During the visit students highlighted the importance of the house to enable them to pursue their studies and some of their hopes for the new building were also discussed.

Casa Miraflores maloca roof appeal - see page 8.



Casa Miraflores students and FENAMAD staff involved in the running of the house, in the maloca @ TReeS

FENAMAD Institutional support

FENAMAD XIX Congress

TReeS gave a grant to the XIX FENAMAD Congress, a biannual event at which a new directorate is elected and institutional plans approved. Representatives attended from 37 native communities spread across Madre de Dios. The TReeS funding enabled several more delegates to attend. The political disruption in Peru at the start of the year led to the postponement of the Congress from its original date as many delegates would have been unable to reach Puerto Maldonado but it was eventually held in March.

Ex-President Julio Cusirichi is now head of AIDSESP's isolated peoples' programme.

COHARYIMA XV Congress

TReeS also gave a small grant to the Coharyima Congress that followed the FENAMAD Congress. Representatives from the Alto Madre de Dios, including communities within Manu National Park, met to discuss issues specifically relevant to their communities.



The new FENAMAD directorate 2023-26 © FENAMAD

Amazon News

***Declaration of Pucallpa:** UK, Norway, Germany and US ambassadors as well as a number of Peruvian government Ministers met in Pucallpa at the end of May to sign a new declaration to promote the conservation of the Amazon. The declaration is intended to reinforce Peru's Climate Change Strategy to 2050 by reducing greenhouse gas emissions resulting from deforestation and degradation of the forest, promoting sustainable development and offering more protection to environmental defenders.

<https://www.forestpeoples.org/en/2023/meeting-indigenous-defenders-to-stop%20murders-Peru-Declaration-of-Pucallpa>

Pan-Amazonian Forum in Brasilia issues 'The Cry of the Amazon': at a Pan-Amazonian Social Forum in late July, in Brasilia, representatives of indigenous organisations and their allies issued an international declaration - "The Cry of the Amazon". The declaration called on the governments in Amazonian nations to adopt urgent action to prevent the Amazon from reaching an environmental tipping point by committing to the protection of 80% of the Amazon basin by 2025. They also demanded that the governments agree a plan to stop all illegal deforestation by 2025 and achieve zero deforestation by 2027. And, that all measures that promote the destruction of the Amazon should be abolished and that all deforested and degraded areas should be rehabilitated, recuperated, and restored.

<https://www.servindi.org/24/07/2023/declaracion-internacional-el-grito-de-la-amazonia>

Madre de Dios News

***Manu National Park 50th anniversary:** Manu National Park, covering more than 17,000km² in the west of Madre de Dios, recently celebrated 50 years since its founding. It is often referred to as one of the most biodiverse places on the planet, home to 10% of the world's bird species, 228 mammal species, 132 reptile species, hundreds of butterfly species and thousands of plant species.

TReeS has supported a variety of initiatives over the years, most recently via Coharyima, the FENAMAD sister organization that represents the communities within the Park and Upper Madre de Dios .

***Amarakaeri Comunal Reserve 21st anniversary:** the Amarakaeri Communal Reserve, covering over 4,000km² in central Madre de Dios, recently marked 21 years since its founding. Unlike other such Reserves, it has proved to be an example of successful co-management between the state and indigenous communities, principally Harakbut, Yine and Matsigenka, to conserve the forest and species such as the giant river otter, jaguar, black spider monkey, spectacled bear, etc.

TReeS Peru was directly involved in its management in its early years and subsequently, TReeS has offered support via FENAMAD.

*Israelites expand activities in Iberia

A Christian sect, the Evangelical Association of the Israelite Mission of the New Universal Covenant, commonly known in Peru as the 'Israelites', is expanding its activities near Iberia, in northern Madre de Dios. Their aim is to farm and they are prepared to clear large areas and invade forest concessions for their agricultural activities. They seem to have little interest in the forest or its biodiversity despite their beliefs. One of their enterprises is the Corporación Tres Fronteras, whose manager is interviewed at:

<http://www.youtube.com/watch?v=PM84WRfZZX8>:



Casa Miraflores meeting with local Council officials © FENAMAD

***Amazon Summit:** Belém, the Brazilian city at the mouth of the river Amazon which will host COP30 in 2025, recently hosted a conference of the eight Amazon nations. Dina Boluarte, President of Peru, was one of only four Presidents to attend. President Lula of Brazil has shown commitment to the protection of the Amazon and its indigenous peoples, unlike his predecessor - Bolsonaro. Lula's policies have already cut deforestation in Brazil over the last year by a significant amount. The Belém declaration calls on wealthy nations to support a Marshall-style plan to protect the Amazon via debt relief in exchange for climate action, the strengthening of regional policing to reduce human rights violations, illegal mining and pollution, and presses industrialised nations to provide greater financial support. However, participants were not required to collectively commit to ending illegal deforestation nor to stop future oil/gas exploration and many other demands from the Pan-Amazonian Forum were ignored.

<https://perusupportgroup.org.uk/news-analysis/> (12.8.2023)

PIACI

The Peruvian Congress has tried to reduce the protection of seven indigenous reserves for 'Indigenous Peoples in Isolation & Initial Contact' (PIACI), home to approx. 7,500 people - draft law no.3518. One of the reserves is in Madre de Dios. The new law proposed passing control from national to regional governments. The regional governor of Madre de Dios is an ex-miner who believes the reserve restricts 'development' opportunities for miners, loggers, etc.

Julio Cusurichi, AIDESEP (national Peruvian Amazon indigenous peoples' organization) head of their isolated peoples' programme and ex-FENAMAD President, said that the law would violate the country's obligation under ILO Convention 169 to seek prior indigenous consent.

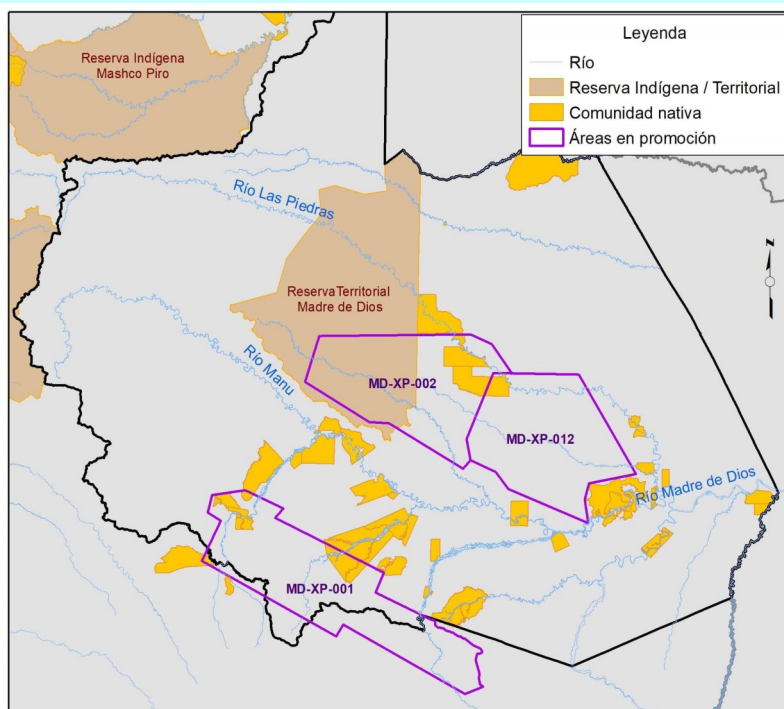
A UN call to protect indigenous peoples living in voluntary isolation and a global petition, which has so far been signed over 9 million times (it can still be signed):

https://secure.avaaz.org/campaign/en/save_the_amazon_2023_loc/?copy

led Peruvian government commissions to rule against the proposal and Congress dropped the changes to the law.

However, the government had already begun promoting new oil and gas exploration concessions despite the fact that they overlap with 435 indigenous communities and two reserves for isolated peoples, without the prior knowledge of the indigenous peoples who would potentially be affected. Some of the communities and a Territorial Reserve are in Madre de Dios (see map below) where the congressman E.Salhuana is promoting the gas field. He has called for a public meeting to present his proposal which he refers to as Camisea 2. He appears to hope to persuade the non-indigenous population to support it. In response, leaders of the Amarakaeri Comunal Reserve and FENAMAD requested a meeting to find out more about his proposal and ensure that their territorial rights would be respected but he has so far refused to meet.

<https://ojo-publico.com/4416/nuevas-areas-que-promociona-perupetro-se-superponen-435-comunidades>



Location of the three oil & gas exploration concessions promoted by the Ministry of Energy & Mines earlier in the year © IBC con información de OjoPúblico

New wildlife care centre and education project on the rio Tambopata

Laurel Hanna of the Picaflor Research Centre on the river Tambopata writes - 'Wildlife in captivity is an ongoing issue in the Tambopata area. It's usually parrots, macaws and monkeys that are taken from the wild when young and reared as pets, but it could be any species. If you've spent time here, you are sure to have seen someone in the market with a tamarin on a string, or heard a macaw or parrot calling from a garden as you walk down the street. The Peruvian Wildlife Service (GRFFS) is responsible for these animals, and where possible, they are sent to a registered re-habilitation centre and prepared for return to the wild. The problem is that local centres are working at capacity, and any animals unfit for release create a bottleneck in the system, taking up time and resources.

The Picaflor Research Centre began a new project in 2023 to combine our passion for environmental education and animal welfare, to convert some of these challenging individuals into conservation ambassadors! Those that are unfit for release will receive long-term care, and will contribute to conservation through educational visits, and will reach a wider audience through social media. So far, we have been granted temporary licences to house a coati, tortoise and a tamarin, but we want to be able to do much more and create a proper facility which will enable us to obtain a long-term operating licence. Now a roof is up, and £2000 is urgently needed for the next stage, to complete the quarantine room, small animal pens and food preparation areas.

Donations can be made via our Gofundme page:

<https://gofund.me/3cc75c66> - be sure to mention TReeS, if you make a donation!



Top: Behavioural enrichment for the coati.

Bottom: new roof already erected.

© Laurel Hanna

Peru News

Dina Boluarte remains President, entrenching her hold on power and now looks unlikely to stand down prior to the next scheduled national elections in 2026. With the support of Congress she has imposed a far more right wing agenda than her predecessor Pedro Castillo.

Serious anti-government protests at the start of the year left 49 dead, including 6 children, mainly in southern Andean towns. The protests are continuing, including mass protests in Lima, to cries of 'Dina Asesina' but with fewer recent casualties. International agencies¹ heavily criticised the handling of the protests and resulting violence.

In surveys² 75%+ were opposed to Boluarte as President and only 6% expressed a positive opinion about Congress. In a recent democracy survey³, Peru came last with just 8% of the population expressing satisfaction with current levels compared to a Latin American average of 28%.

The government has increased ties with the US military. There are now thought to be approx. 1,000 'advisers' spread across 10 bases, mainly associated with ensuring that energy supplies can be maintained.

In March, the first tropical storm for 10,000 years in the eastern Pacific - cyclone Yaku - impacted the coast of Peru. As a direct consequence of Yaku there were 8 deaths, over 1,300 homes were destroyed and 40 miners died in landslides in the dept. of Arequipa. Northern coastal areas were extensively flooded for many weeks, which led to the worst episode of dengue fever for decades with nearly 150,000 cases and 150 deaths.

Concern is growing that late 2023/early 2024 will see the onset of a major El Niño event maybe the worst for decades, for which few preparations have been made. It has been a mild winter on the coast and ocean temperatures are more than 2°C higher than usual⁴ a sure sign of El Niño. With greatly reduced fish stocks, fishing fleets are already remaining in port and wildlife is dying.

In the first half of 2023, Peru recorded negative economic growth across almost all sectors⁵. It seems unlikely that the government prediction of +3% growth for the year will be achieved. This will do little to assist the 25%+ (9 million) living in extreme poverty and dealing with 6% inflation⁶.

The fossil of the largest animal that ever lived has been discovered in Peru. *Perucetus* is an extinct genus of whale from the Eocene era. With an estimated length of 17.0 to 20.1 metres and weighing between 85 and 340 tonnes, it may have rivalled, if not exceeded, the blue whale in weight. Its fossilized remains were found in the Samaco (Ica) desert, south of Ica.⁷

1.<https://www.oas.org/es/cidh/informes/pdfs/2023/Informe-SituacionDDHH-Peru.pdf>

2.<https://larepublica.pe/politica/actualidad/2023/02/26/encuesta-iep-el-congreso-y-dina-boluarte-con-los-mas-altos-niveles-de-rechazo-adelanto-de-elecciones-asamblea-constituyente-1078896>

3.<https://www.latinobarometro.org/>

4.<https://seatemperature.net/current/peru/lima-sea-temperature#:~:text=65%C2%B0F&text=Today%20water%20temperature%20in%20Lima,physically%20fit%20and%20hardened%20people.>

5.<https://www.gob.pe/inei>

6.<https://www.bcrp.gob.pe/en/publications/weekly-reports/tables.html>

7.<https://www.bbc.com/mundo/articles/ce9kdqek24lo>

Recent information sources linked to Tambopata & Madre de Dios

The following articles, reports, publications, etc relating to Tambopata and Madre de Dios have recently been sighted.

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

*'Gold-mining deforestation across the Amazon', MAAP 178, March 2023;

*'Protected areas & indigenous territories effective against deforestation across Amazonia', MAAP 183, March 2023;

*'Deforestación por minería de oro en la Amazonía Peruana sur: Actualización 2021-2022', MAAP 185, June 2023;

*'Amazon deforestation & fire hotspots 2022', MAAP 187, June 2023;

*'Amazon fire season heats up', MAAP 189, July 2023;

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

*'Amphibians of the Kawsay Biological station', J.Valencia & R.Camus, Chicago Field Museum, July 2023;

*'Análisis y modelación de los procesos de deforestación en el eje vial Interocéánico Sur, Puerto Maldonado-Iñambari, Madre de Dios, 1999-2030', K.Sanchez & C.Sanchez, April 2022;

*'A new species of *Chusquea* (Poaceae: Bambusoideae: Bambuseae) from Southeastern Peru', N.Reategui & J.Alegria, American Bamboo Society Journal, November 2022;

*'Caracterización morfológica de *Euterpe precatoria* Mart. (huasaí) en dos tipos de bosque en el suroeste de la Amazonia peruana (Madre de Dios)', G.Florez-Castillo et al, Bosques Latitud Cero, Vol.10 (2), December 2020;

*'Challenges and opportunities of voluntourism conservation projects in Peru's Madre de Dios region', A.Ocañas & J.Thomsen, Tourism Management Perspectives 45, December 2022;

*'Contribucion al conocimiento del asubfamilia Polistinae (Hymenoptera: Vespidae) en la reserve de la Biosfera del Manu', J.Amaru-Castelo et al, Graellsia 79 (1), June 2023;

*'Description of two new species of apple snail (Ampullariidae: Pomacea) from Peruvian Amazonia', A.Ampuero, Zootaxa, 5258 (1), March 2023;

*'Diversidad de Chilopoda (Myriapoda) y Scarabeidae (coleoptera) de acuerdo a una gradiente de perturbación en la Reserva de Biosfera del Manu', B.Bautista, 2023;

*'Efectos de la cobertura vegetal en las características biológicas, físicas y químicas de los suelos degradados por minería aurífera en la comunidad nativa de San Jacinto', L.Pierola, October 2022;

*'Forest disturbance and recovery in Peruvian Amazonia', D.Requena et al, Global Change Biology, Feb.2023;

*'La creación de una autoridad única influye en el ordenamiento territorial de la zona de amortiguamiento de la Reserva Nacional Tambopata', J.Diaz, 2023;

*'MADERA: A standardized Pan-Amazonian dataset for tropical timber species', X.Herrera-Alvarez et al, Ecology 2023, July 2023;

*'Reptiles of the Kawsay Biological station', J.Valencia & R.Camus, Chicago Field Museum, July 2023;

*'Variations in the spatial distribution pattern of *Bertholletia excelsa* in three vegetation cover types in the southeastern Peruvian Amazon', J.Garate-Quispe et al, Biodiversidad Amazonica, Vol.1 No.2, July 2022;

URGENT APPEAL - Casa Miraflores maloca reroofing

The conical roof the maloca which acts as the dining-room, study area, meeting place, etc for the 28 indigenous students living in the Casa is in a poor state of repair. The maloca acts as the study area, dining-room, communal meeting place and contains the three computers, printer and library. The roof is formed from sections of woven palm leaves in a traditional style – Matsigenkas living in Puerto Maldonado are the experts at making and installing them. However, it has not been reroofed for several years and its condition has deteriorated and there are now many holes (See photo) in it. Consequently, something needs to be done urgently before the rains arrive in Sept/Oct.

APPEAL: £500 to contribute towards the cost of reroofing.

Please see bank & contact details below, if you would like to donate.

Footnote: the importance of the Casa is being increasingly recognized. The Minister of Women, in the Peruvian government, made a surprise visit to the Casa the day after the TReeS visit and donated a backpack with trainers, t-shirts, etc to each student. A few days later, Teresita Antazú of AIDSEP (Interethnic Association for the Development of the Peruvian Rainforest) and the vice-president of FENAMAD, Eusebio Ríos, also visited. During each visit, those in charge of the Casa outlined its importance, how it functions and the needs of the indigenous students who live there.

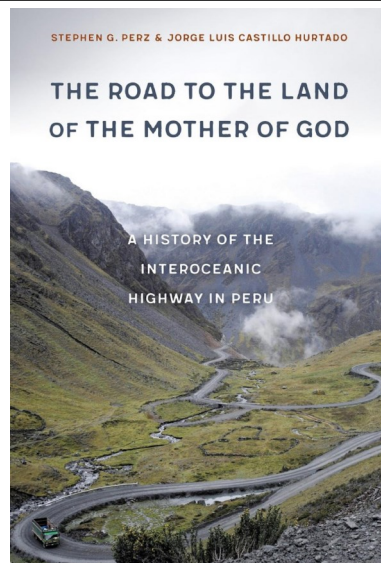


Casa Miraflores roof riddled with holes, especially in the upper parts © TReeS

The Road to the Land of the Mother of God: A History of the Interoceanic Highway in Peru - S.G. Perz & J.L. Castillo Hurtado, Nebraska Press (2023)

“The Interoceanic Highway is many things to many people: an emblematic project in a period focused on integration, a dream realized for an isolated region, a key cause of political corruption, and a major driver of ecological and cultural devastation. This highway links the Andes with the Amazonian lowlands in southern Peru, offering an outlet for Brazil's emergent economy. While it brought an end to the isolation of Madre de Dios and other parts of southern Peru and the western Amazon, it was made possible by political corruption revealed in the Lava Jato scandal, and it permitted the spread of criminal business activities. However, the Interoceanic Highway's deeper history must be appreciated in order to understand why it was built and the impacts it has generated.

The Road to the Land of the Mother of God explores more than five hundred years of the history of Peru's Interoceanic Highway, showing how the purposes, portrayals, and importance of roads change fundamentally over time, and thus how roads bring significantly more impacts and costs than their advocates and critics generally anticipate. By taking a deeper look at infrastructure history, Stephen G. Perz & Jorge Luis Castillo Hurtado portray infrastructure as an integrative optic for understanding changes in local livelihoods, regional development, and social conflicts.”



Postal correspondence option

The cost of having a PO Box and the restricted opening hours at Royal Mail sorting offices left us with no other option but to terminate our PO Box address from the end of May 2023. If you posted something to us that would arrive after that date it should have been returned to you by Royal Mail.

Consequently, we would encourage all 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 below.

However, if you would still like to post your subscription or a donation to us then the following mailbox address can be used up to 30th September 2023: 78 Greyhound Road, London N17 6XN.

*****Receiving TReeS News by email enables you to click on all the links contained within the Newsletter and view all the additional / supporting information*****

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 - tresuk1@gmail.com

TReeS General enquiries

To receive the TReeS Newsletter by email, purchase TReeS merchandise, volunteer, etc, please get in touch at: tresuk1@gmail.com

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

TReeS Membership & Donations

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

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

NB. The following mailing address is no longer in use - **P.O.Box 33153, London NW3 4DR**

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