



WWF

NEWS

ISSUE 2

2017

WWF FOREST AND CLIMATE

CANOPY

NEWS AND INFORMATION FROM WWF'S INTERNATIONAL FOREST AND CLIMATE TEAM

Green Climate Fund approves historic \$500 million for forest sector results-based payments

For their eighteenth meeting, the Board of the Green Climate Fund (GCF) met in Cairo, Egypt, from September 30 to October 2.

Established in 2010 to support the developing countries' responses to climate change, the GCF is part of the financial mechanisms of the UNFCCC, and is guided by its principles and decisions, including those of The Warsaw Framework for REDD+ and the Paris Agreement.

One item among many in their packed meeting agenda was the need to decide how to operationalize the UNFCCC guidelines for REDD+ results-based payments – which will be used to guide the preparation of country proposals – an issue that has been on the GCF agenda for almost 3 years, evolving from the 10-year long forest and climate negotiations under the UNFCCC.

For 4 days, technical advisors from both developing and developed countries retreated into a room to negotiate the first pilot program under the GCF that will pay for results achieved in the forest sector in emissions reductions and enhancement of carbon stocks.



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NEWS AND INFORMATION FROM WWF'S GLOBAL FOREST AND CLIMATE TEAM

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Why we are here

WWF Forest and Climate works to ensure that the conservation of tropical forests as carbon stores is secured by green economic development that benefits people, the climate and biodiversity in transformational ways.

www.panda.org/forestclimate



FEATURE

GREEN CLIMATE FUND APPROVES HISTORIC \$500 MILLION FOR FOREST SECTOR RESULTS-BASED PAYMENTS..... 1

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CANOPY IS ALSO AVAILABLE ELECTRONICALLY VIA EMAIL. SUBSCRIBE AT: bit.ly/CNPY-nws



VIDEOS



Monitoreo biológico con la comunidad de Zancudo Cocha en la Reserva Cuyabeno

La comunidad Kichwa de Zancudo Cocha ha trabajado con WWF-Ecuador utilizando métodos de monitoreo biológico con cámaras trampa para así conocer más sobre su territorio y tomar decisiones informadas. ¡Conoce más sobre su trabajo!

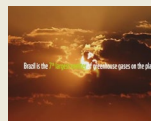
MIRE: <http://bit.ly/2xAlaww>



Lessons from Jurisdictional Approaches

Jurisdictional approaches seek to align interests and coordinate actions among governments, businesses, local communities, and NGOs toward shared conservation, supply chain sustainability, and green development goals.

WATCH: <http://bit.ly/2w9UvUq>



Desafío Ambiental

WWF-Brazil wants forest restoration to gain scale and multiply in rural Brazilian properties. That is why they created the "Desafío Ambiental" (Environmental Challenge). An effort to identify and promote entrepreneurship and innovation in environmental solutions.

WATCH: <http://bit.ly/2xLrK3p>



Community MRV in Guyana

Participatory MRV engages relevant stakeholders in the REDD+ process, providing them with the skills and capacities to monitor and report on their forest and carbon resources. This community produced video describing their MRV process is now available with subtitles in Bahasa, French, and Spanish.

LIHAT: <http://bit.ly/2ypfu7n>
REGARDER: <http://bit.ly/2zsfslf>
MIRE: <http://bit.ly/2xJ5Zht>
WATCH: <http://bit.ly/2vsJZGy>

FOREST AND CLIMATE NEWS

HAVE YOU EVEN HEARD ABOUT THE AMAZON PIEDMONT?

WWF-Colombia – One of the main productive activities that take place in this area is the extensive cattle ranching for milk and meat production. About 180 farmers in the Amazon Piedmont have signed conservation agreements with WWF, to foster more sustainable practices, ensure conservation outcomes, and improve farmer’s quality of live. For a week, we visited some of the farms where changes to produce sustainable meat and milk have begun being implemented, in three municipalities in the area.

MORE: <http://bit.ly/2xQCK07>

TOGETHER FOR SUSTAINABLE FOREST MANAGEMENT IN ANDRAFAIKONA

WWF-Madagascar – The initiative of the rural community of Andrafaikona, a village of 1900 inhabitants in the district of Vohémar, tackles a major threat for the rainforest in Madagascar’s Northern Highlands landscape: uncontrolled logging. The villagers are grouped into AMTI *, their local community organization in order to structure this activity and monitor effectively the logging in their area.

MORE: <http://bit.ly/2woY0GM>

THE GLOBAL MANGROVE ALLIANCE: UNITING TO CONSERVE AND RESTORE VALUABLE COASTAL FORESTS

WWF-US – Mangrove forests are some of the world’s most valuable coastal ecosystems—and they’re being destroyed at an alarming rate. WWF has been working around the world on mangrove conservation and restoration efforts for decades, from coastal mangrove conservation in the Galapagos Islands and Indonesia to mangrove restoration efforts in Pakistan. Now it’s time to go big and improve the lives of millions. The target is ambitious: to expand the global extent of mangrove habitat 20% by the year 2030.

MORE: <http://wwf.to/2k9tSNK>

DRC: INDIGENOUS PEOPLES INVOLVED IN NATURAL RESOURCES MANAGEMENT WITH WWF SUPPORT

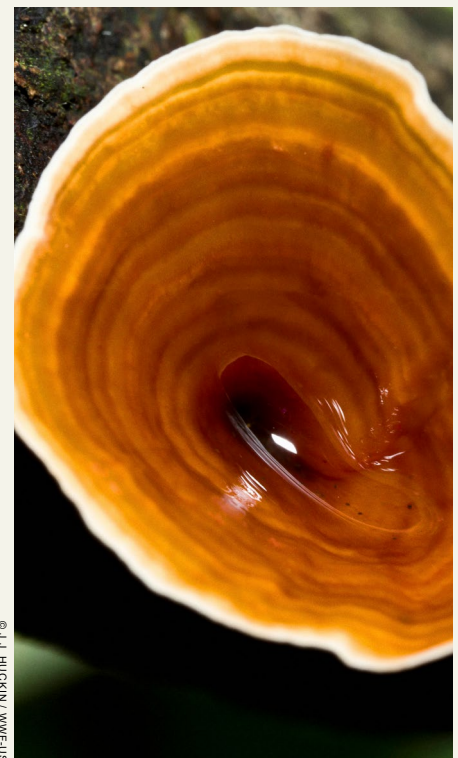
WWF-DRC – In the Democratic Republic of Congo, indigenous peoples have a special relationship with the forest, which is one of the foundations of their way of life and culture. Unfortunately, they have had to suffer, to varying degrees, marginalization from other local populations. WWF naturally became interested in the fate of these populations while implementing forest management projects.

MORE: <http://bit.ly/2ivlvdG>

BAKA OPTIMISTIC AS WWF AND PLAN INTERNATIONAL LAUNCH NEW PROJECT

WWF-International – Indigenous people in Southeast Cameroon see brighter future following the launch of a WWF-Plan International project aimed at empowering the Baka and improving on their living conditions. The project was launched on September 14, 2017 in Abong Mbang, eastern Cameroon, in the presence of Baka leaders, traditional rulers, local administrative and council authorities as well as representatives of local NGOs. Baka representatives and other actors at the launch, expressed optimism that the project will enable them take charge of their destiny and reduce abuse of their rights.

MORE: <http://bit.ly/2yFRNdZ>



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PUBLICATIONS

The community of REDD+ practitioners and experts from around the world grows every day, and WWF's global Forest and Climate team is working to ensure that the capacity-building and informational materials it produces are available to a diverse audience.

MAPPING REDD+: A VISUAL GUIDE TO UNFCCC DECISIONS

New translations of our February 2017 publication are available now in French and Spanish.

.....
[READ MORE: http://bit.ly/MapsREDD](http://bit.ly/MapsREDD)
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TACKLING DEFORESTATION THROUGH A JURISDICTIONAL APPROACH: LESSONS FROM THE FIELD (EXECUTIVE SUMMARY)

In May 2017, WWF convened a group of experts and practitioners for a three-day workshop in Brasilia to “unpack” and analyse five leading jurisdictional initiatives in a peer-to-peer setting. Based on the conversations and expertise from this workshop, the full report, to be released shortly, offers a full synthesis of lessons learned and jurisdictional case studies.

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[READ MORE: http://pand.as/2wg0qaE](http://pand.as/2wg0qaE)
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FINANCE FOR FORESTS: GOALS 8 AND 9 ASSESSMENT REPORT

The third edition of the NYDF Progress Report (2017) focuses on Goals 8 and 9, assessing the state of finance aligned with forest and climate goals. It is accompanied by brief online updates on Goals 1-10. The report provides a limited picture of the state of forest and climate finance, but despite data gaps, the message is clear: While there are promising developments, total finance for Goals 8 and 9 – roughly USD 20 billion since 2010 – is insufficient and does not reflect the importance of forests as part of the climate solution.

.....
[READ MORE: http://forestdeclaration.org/](http://forestdeclaration.org/)
.....

NATURAL CLIMATE SOLUTIONS

Most nations recently agreed to hold global average temperature rise to well below 2 °C. The authors examine how much climate mitigation nature can contribute to this goal with a comprehensive analysis of “natural climate solutions” (NCS): 20 conservation, restoration, and/or improved land management actions that increase carbon storage and/or avoid greenhouse gas emissions across global forests, wetlands, grasslands, and agricultural lands.

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[READ MORE: http://bit.ly/2ixjLID](http://bit.ly/2ixjLID)
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© WWF / Andrea Turvez

REDD+ CAPACITY BUILDING

WWF FOREST AND CLIMATE LEARNING SESSIONS ARE FREE AND ARE DESIGNED TO LEVERAGE AND SHARE REDD+ KNOWLEDGE AND EXPERTISE. WE INVITE EXPERTS TO PRESENT ON A KEY ISSUE SO THAT REDD+ PRACTITIONERS CAN HAVE ACCESS TO THE LATEST INFORMATION RELEVANT TO REDD+.

To watch an archived learning lesson or to register for an upcoming webinar, please visit: bit.ly/REDDlearn.

PROMOTING GENDER EQUALITY IN DRC THROUGH REDD+ AND COMMUNITY FORESTRY

The Democratic Republic of Congo (DRC) is positioning itself as a global leader on integrating gender as a cross-cutting theme in all sectors of development. Directly addressing gender issues in the sustainable development agenda through the frameworks of REDD+, community forestry, and land tenure was the subject of a ground-breaking workshop convened in June 2016 in Kinshasa, DRC. In this Learning Session, Nathalie Simoneau, Senior Gender Specialist at WWF-US, will review the progress in DRC on mainstreaming gender in development and REDD+, the outcomes of the Kinshasa workshop, and the country's next steps to implement actions on the ground and continue the advocacy work at all levels.

WATCH: <http://bit.ly/2thjsz5>

INDIGENOUS PEOPLES AND COMMUNITY CONSERVATION: EXPERIENCES FROM THE ECUADORIAN AMAZON

In Ecuador, 46% of the country's land is part of the Amazon biome, and community conservation plays a key role and is strongly connected to protected areas. In this Learning Session, Juan Carlos Garcia, Conservation Director of WWF-Ecuador, will compare and contrast two cases, sharing experiences and lessons learned, and explain the SACRE Declaration (Achuar System of Conservation and Ecological Reserves) and how it represents an important milestone for conservation efforts lead by Indigenous Peoples.

WATCH: <http://bit.ly/2xeCF3M>

REDD+ PROGRESS: FORESTS TOWARDS SOLVING CLIMATE CHANGE

The last decade of REDD+ negotiations has drawn significant attention to forests and forest-related climate change mitigation and adaptation activities in developing countries. As part of those developments, countries are working to improve their capacities to better measure their REDD+ results and to build their National Forest Monitoring Systems and MRV processes. In this Learning Session, Maria J. Sanz, Scientific Director of the Basque Center for Climate Change, will give an overview of the last year's developments and status of REDD+.

WATCH: <http://bit.ly/2vXxKm3>

FORESTS ON THE GLOBAL STAGE - COP23, GLOBAL CLIMATE ACTION, AND THE GCF

Forest action was cemented into the global climate architecture with the Paris Agreement in 2015 and countries, communities, and businesses have continued to diligently work towards a greener, leafier world. In this learning session, Josefina Brana-Varela, Senior Director of WWF Forest and Climate, gave an overview of international developments in the forest policy realm, including the status of the UNFCCC negotiations, Global Climate Action, and the Green Climate Fund.

WATCH: <http://bit.ly/2gHmcl5>

PANDAS IN THE WILD



© WWF / EMELIN GASPARRINI

Sometimes Pandas venture into the wild in groups. This October, Dandy Yela Yolemba, Communications Manager for WWF-DRC, Maria Fernanda Jaramillo, Knowledge Sharing and Learning Manager for WWF Forest and Climate, and Emelin Gasparrini, Communications Program Associate for WWF Forest and Climate, travelled to the Andean Amazonian Piedmont region of Colombia, to learn about the programs taking place in the region and share lessons and stories from their work.

Both Colombia and the DRC support communities to shift to sustainable methods of production at the local level by targeting specific drivers of deforestation – cattle ranching and charcoal production. “Being able to visit our colleagues and see their landscapes and partners with our own eyes is so important,” said Dandy. “We are facing the same challenges even though the drivers are different, and the connections between our two places is so clear when we see it in person.”

Partnering with local communities protects forests while improving livelihoods, illustrating the diversity of approaches in the conservation world.

Stories collected from this trip will be published in future issues of the Canopy.



COMMUNITY MONITORING AND PEACE IN COLOMBIA

In a May workshop, representatives of 21 indigenous, afro-descendent, and peasant communities from nearly every region in Colombia came together to share their experiences in conserving and monitoring their natural resources.

Hasbleidy Lugo Osorio, a community leader from Caquetá, emphasized the importance of being able to meet directly with other community representatives. “[It] strengthen[s] us as leaders to interact with other organizations from our country. Now, we can take those experiences to our communities and we can tell them that we’re not alone.”

The central theme of the WWF-facilitated workshop was connection, a priority highlighted by its distinct but related goals: to share tools and methodologies communities can use in their monitoring efforts; to facilitate connections between communities, who

face similar issues across their disparate geographies; to encourage dialogue between communities and institutions in order to link local monitoring to the National Forest and Carbon Monitoring System; and to enhance the national visibility of these local efforts.

“It’s important for communities to be recognized for their efforts in forest conservation... These workshops allow us to strengthen and make visible the experiences of communities in their territories, where the support of government and international cooperation are key factors,” said Adriana Yepes, FAO technical expert from the UNREDD Program.

For Leonardo Molina Suarez, from the Colombian Ministry of Environment and Sustainable Development (MADS), the workshop was “invaluable.” Called by MADS and organized by UNREDD+ and WWF-Colombia, its timing reveals a

national shift in approach tied to both environmental goals and the peace process.

According to UNREDD+ figures, 54% of the remaining forests in Colombia can be found in territories to which afro-descendent and indigenous communities hold legal title, and forests often play a crucial role in community livelihoods. Despite that importance, deforestation is on the rise in parts of Colombia as newly arrived actors clear land for agriculture, ranching, illegal mining, or narcotrafficking in areas that had previously been under the control of the FARC and therefore largely inaccessible.

To counter that deforestation, Colombia has started a participatory process to define targeted policies and laws, including the construction of a Comprehensive Strategy for Deforestation Control, with communities featuring as major actors.

This process is supported by UNREDD+ Colombia and a host of other organizations, including WWF, GIZ, World Bank's Forest Carbon Partnership Facility, Fondo Acción, The Nature Conservancy, Fundación para la Conservación y el Desarrollo Sostenible, Fundación Natura, Environment and Society, and Rights + Resources Initiative.

The Norad-funded workshop in Florencia was one space created through this process to facilitate community participation in the development of initiatives under the National Anti-Deforestation policy in support of the larger peace process. By supporting community based forest management,

government officials hope to support sustainable community livelihoods with targeted government efforts and investments. Empowering communities to monitor their natural resources through this management model will also help them make better informed land-use decisions and help catch illegal deforestation more quickly.

As more territory becomes accessible under the peace process, communities will be valuable partners in forest monitoring and anti-deforestation efforts. Workshops like the one in Florencia intend to make that partnership as effective and beneficial as possible, for communities and institutions alike.

"This space offers an opportunity for government institutions and international cooperation agencies to discuss with participants how they value their forests, mountains, and other natural resources. There is a lot of information about what institutions should, or shouldn't, do in order to make national monitoring a more participatory process," said WWF's Maria Fernanda Jaramillo, who facilitated the meeting.

"Being able to speak directly with community representatives can sometimes be a good check for national or international actors, to make sure their efforts are in line with the actual needs of the communities on the ground."





CONTINUED FROM COVER

Balancing technical, policy, and practical considerations, the discussions focused on how to operationalize the [Warsaw Framework for REDD+](#) and the mechanisms built under the UNFCCC since 2005. Ultimately, the GCF Board adopted the terms of reference for the [REDD+ Results-Based Payments pilot program](#), as well as a scorecard to evaluate countries' submissions to the GCF.

“Negotiations were not easy, given the complexity of the technical issues under discussion, and the difference in perspectives from donors and forest countries. The decision, although not perfect, is balanced and illustrates the spirit of compromise from all countries involved,” says Josefina Braña-Varela, WWF’s Senior Director for Forest and Climate. The new program will channel \$500 million to forest countries that meet all the UNFCCC requirements, and who can demonstrate success in halting deforestation and forest degradation and/or in conserving and enhancing

forest carbon stocks. The results must be expressed in terms of tons of verified emission reductions of carbon dioxide equivalent (tCO₂ eq) and be achieved at the national level or the subnational level as an interim measure. They must also be in strict compliance with the UNFCCC and GCF guidelines and procedures, including addressing and respecting the Cancun Safeguards.

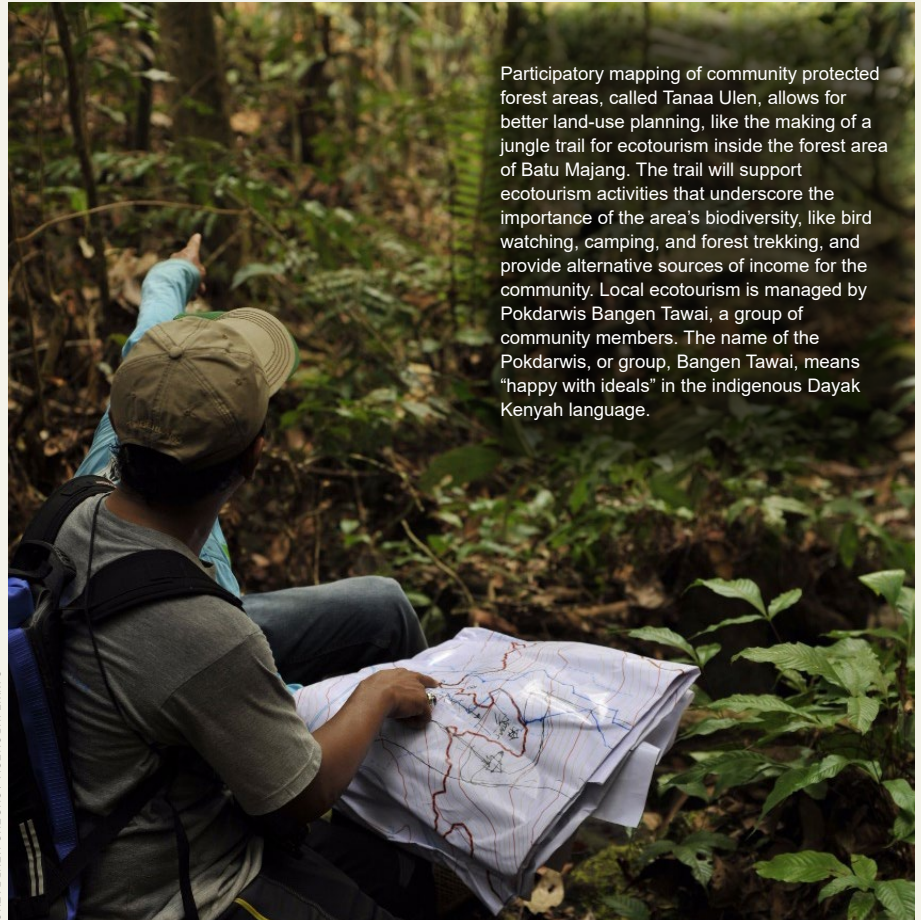
The pilot program for REDD+ Results-Based Payments will only pay \$5 USD/ton, but it will offer a learning opportunity, and a tangible incentive for forest countries to continue their efforts to halt deforestation. Furthermore, the new program will require recipient countries to reinvest the proceeds in activities in line with their Nationally Determined Contributions, national REDD+ strategies, or low carbon development plans. Transference of the emissions reductions or their use for other purposes (e.g. as offsets) will not be allowed.

“This seems like a win-win situation for forests and climate,” says Brana-Varela, “and now our total focus needs to be completely on the implementation of actions, programs, and policies that directly address the drivers of deforestation and forest degradation.” The GCF also offers funding opportunities for forest countries to undertake planning efforts and implementation activities in the forest sector, for those countries that aren’t yet ready to pursue results-based payments.

Given that the stated aim of the GCF is “to catalyze a flow of climate finance to invest in low-emission and climate-resilient development, driving a paradigm shift in the global response to climate change,” the decisions made at this meeting represent an important step towards a future with fewer emissions from forest destruction and degradation.

FORESTS AND COMMUNITY IN EAST KALIMANTAN

Forests are connected to nearly every part of community life in East Kalimantan. Using methods both traditional and modern, communities manage their forests in ways that support sustainable livelihoods, biodiversity protection, and local culture



© WWF INDONESIA / SUGENG HENDRATNO

Participatory mapping of community protected forest areas, called Tanaa Ulen, allows for better land-use planning, like the making of a jungle trail for ecotourism inside the forest area of Batu Majang. The trail will support ecotourism activities that underscore the importance of the area's biodiversity, like bird watching, camping, and forest trekking, and provide alternative sources of income for the community. Local ecotourism is managed by Pokdarwis Bangen Tawai, a group of community members. The name of the Pokdarwis, or group, Bangen Tawai, means "happy with ideals" in the indigenous Dayak Kenyah language.



Hudoq Pekayan, a traditional dance in Long Tuyuq, is usually performed after the planting is finished in the highland rice paddies above the village. The dance asks for help from the divine to protect the paddy from pests, and expresses wishes for the paddy to grow well and have good yields. This traditional dance illustrates the relationship between human and nature in Dayak culture, where the spirit of each pest is chased from the village to protect the crops. Here, dancers in bird masks embody the birds that forage in the rice paddies.

© WWF INDONESIA / SUGENG HENDRATNO



Freshwater, and the fish it supports, is dependent on forests. Villagers in Minta harvest kendra fish in a small artificial river off the bank of the Mahakam River. This river off-shoot was created by the community as a place to trap and catch fishes coming from the Mahakam River. Minta is one of the villages where WWF Indonesia is supporting sustainable livelihoods and an Indigenous community conserved area (ICCA). The ICCA provides legal rights, but also supports natural resource management capacity building in line with indigenous cultural relationships with nature.

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The traditional ceremony of Mencaq Undat is a celebration welcoming the rice harvest and offering thanksgiving for good yields. The villagers of Batu Majang pictured here are pounding the harvested rice into flour, which will later be cooked and served at a community feast. The full ceremony includes additional offerings of dance and music, and, in addition to expressing gratitude for the bounty of the harvest, emphasizes the spirit of cooperation as an important part of traditional community values and culture.

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REDD+ PEOPLE

FORESTS FROM ABOVE

Aurelie Shapiro of WWF-Germany talks with us about maps, drones, and how humans still play an essential role in satellite data assessment.



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What is your role at WWF?

I am a satellite remote sensing specialist, which in German is known as a Satellitenfernerkundungsspezialistin.

My job involves using satellite imagery to observe and monitor ecosystems for WWF projects. This involves making maps of ecosystems, habitats, protected areas, and forests, identifying areas of deforestation or forest degradation, and performing spatial analysis such as evaluating connectivity or determining hotspots of threats or other anthropogenic impacts. I am also increasingly working with other data from airplanes and drones, so it's not exclusively satellites anymore.

What are you currently working on?

I am working on new ways to assess and quantify forest degradation, the second D in REDD+, which is much more difficult than monitoring deforestation. To do this I am exploring different techniques, from modeling drivers and threats that cause degradation, to using data collected on the forest canopy, by using 3-D data collected by drones, or detailed forest structure data from airborne laser scanning (LiDAR: Light Detecting and Ranging). We have collected this data in the Democratic Republic of Congo as part of the [Carbon Map & Model Project](#). The DRC is a country with a pretty low deforestation rate, but high rates of degradation. Therefore, developing simple, repeatable methods to quantify degradation over

time could help a lot of countries like the DRC quantify their degradation emissions, and make efforts to reduce them.

Another project I just started working with is [Voices for Mekong Forests](#), for which I am helping to develop a forest governance monitoring system for the Mekong region countries. This involves providing civil society with the tools to observe and document what is happening to their forests from satellites and other sources, and helping them take action to invoke change through mobile apps. It's really different from the more scientific research I have been doing, as this is really applying the outputs of remote sensing, bringing the information to people on the ground, and developing new tools for people to interact with and respond to map information.

How did you get involved in this kind of conservation work?

I have always been an animal lover with a huge interest in maps. There were always maps everywhere in my room, and now they cover my apartment. In my first semesters at University I discovered GIS (Geographic Information Systems) where I created my own maps and spatial analysis, which led to satellite image analysis and remote sensing, and I have never really stopped mapping since!

Technology is an increasingly important part of REDD+; what do you wish more people knew, or took into account, when planning to use technology in their conservation efforts?

I believe it's important to know that technology – all these new gadgets – they don't do everything for you. When you download or purchase a satellite

image you still need to process it and evaluate it and, most importantly, determine if it's telling the truth – images from above can be deceiving! An area might look like it was purposely deforested, but it could simply be the result of a natural process. Or sometimes shadows from clouds make you think you are seeing water or a different land cover type. And after you fly a drone, there's a lot of work to get the information you need from it. You shouldn't underestimate the time and effort that requires. I feel like a lot of people think that everything can be solved with a satellite image or photo but that's not at all the case. You still need humans: like a skilled Satellitenfernerkundungsspezialistin!

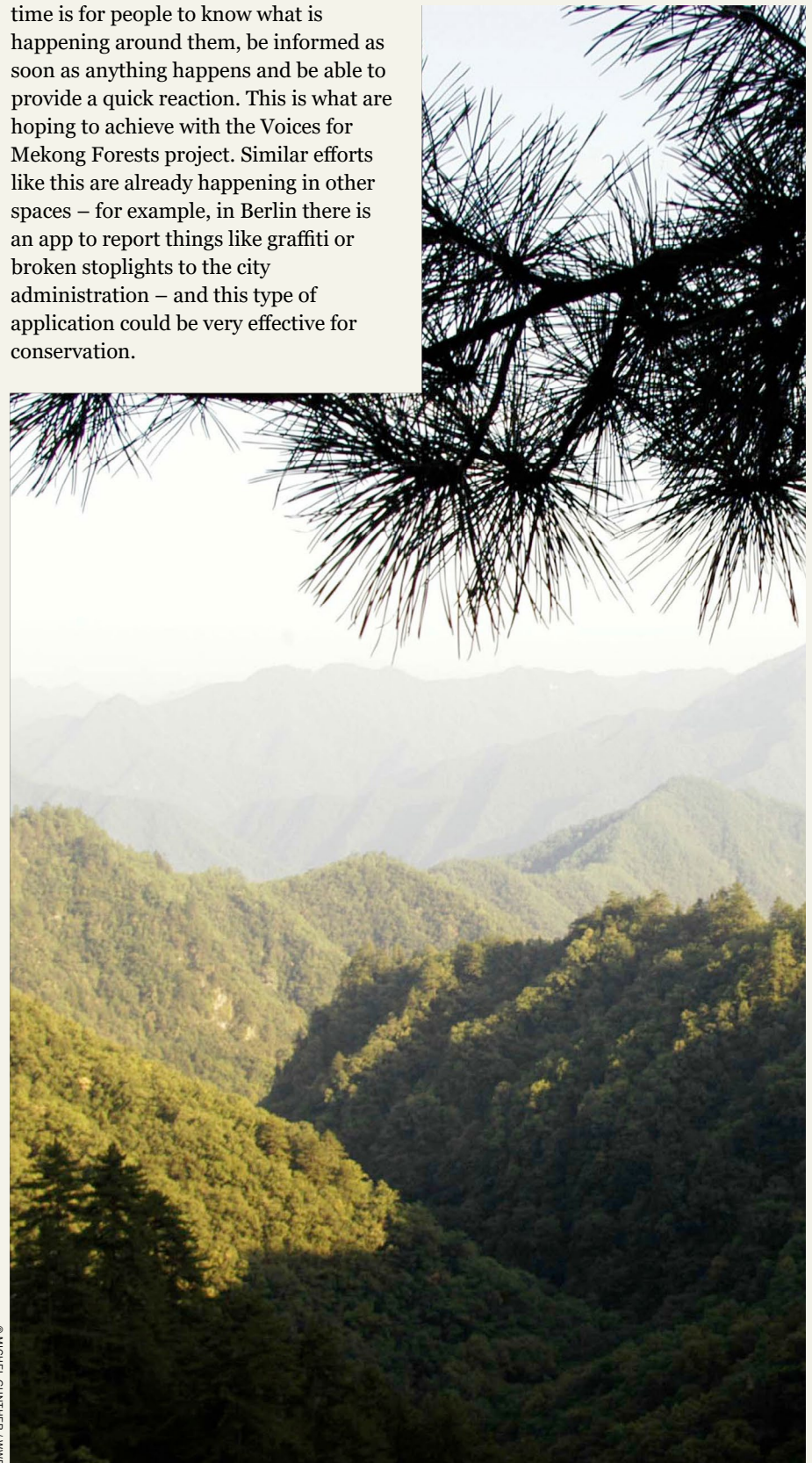
Apart from capacity and funding gaps, what do you think the biggest challenge is for remote sensing in the field?

I am sure you were expecting me to say: the biggest challenge is getting people to understand remote sensing or what a satellite or airborne photo or map is showing – but it's not. Show anyone a photo or a map and they understand it right away – humans have been mappers even before we were reading and writing. The biggest challenge is keeping gear intact and powered up! Everything relies on batteries: the drone, the laptops, the phones, the GPS, and it still means lugging a generator around and having to buy fuel. Then add humidity, dust, bumpy roads...

What do you think the next big opportunity is?

A year ago, I would have said drones. Now, I think there is a huge potential in connecting people with live, real-time information from their surroundings. We are all increasingly connected by smartphones and mobile technology - the only way to stop the destruction of our forests and wildlife at this point in

time is for people to know what is happening around them, be informed as soon as anything happens and be able to provide a quick reaction. This is what are hoping to achieve with the Voices for Mekong Forests project. Similar efforts like this are already happening in other spaces – for example, in Berlin there is an app to report things like graffiti or broken stoplights to the city administration – and this type of application could be very effective for conservation.

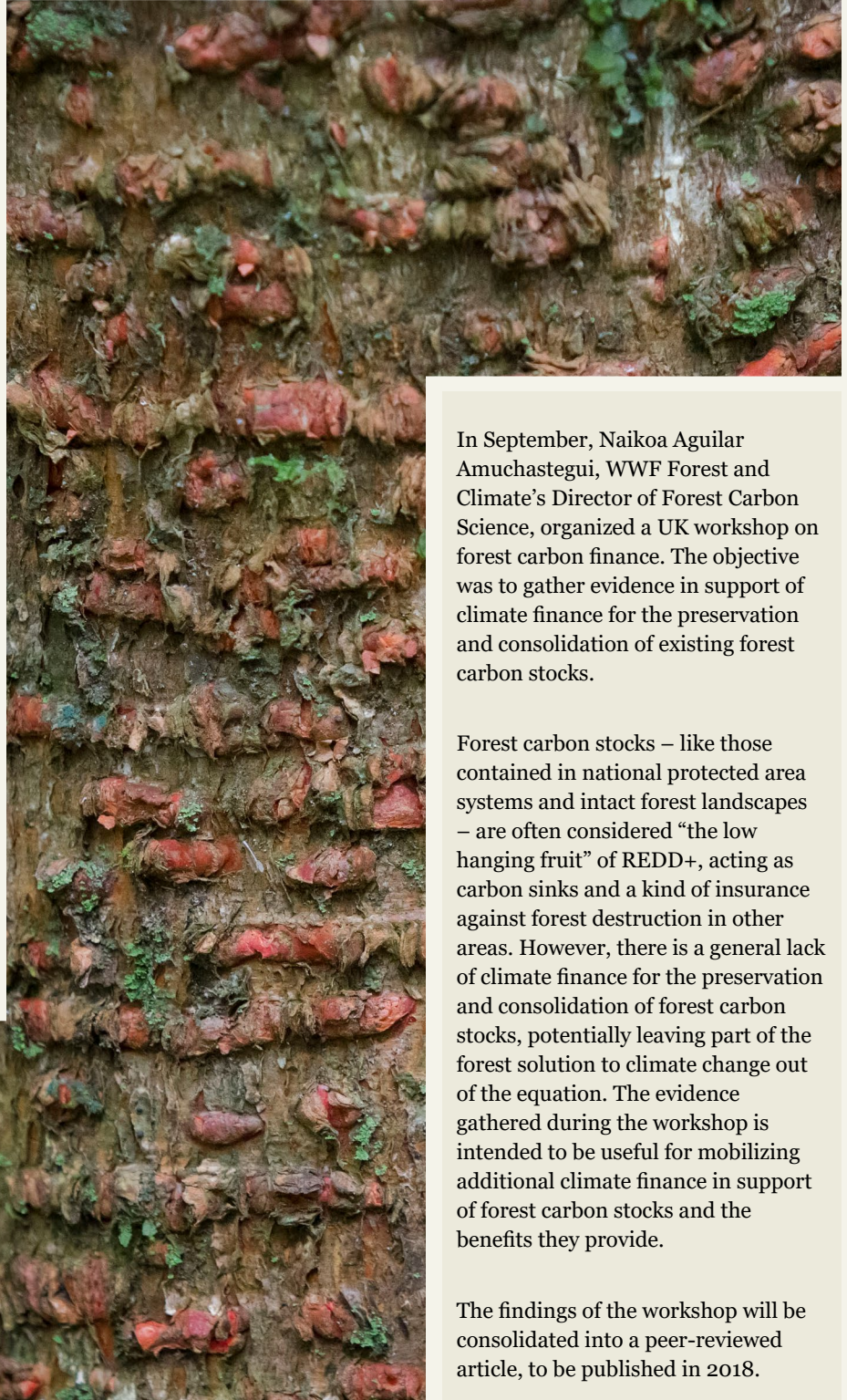


© MICHEL GUNTHER / WWF

PANDAS IN THE WILD

Josefina Braña Varela, Senior Director of WWF Forest and Climate, participated in the 3rd International Conference on Community Land and Resource Rights held in Stockholm, on October 4-5. The Stockholm Conference brought together community, government, and private sector representatives working to advance land rights for conservation, sustainable development, and social equality outcomes.

Josefina participated in a panel focused on strategies and actions undertaken to increase community land and resource rights as a key component of conservation outcomes, sharing examples from WWF's work in Guyana, Indonesia, and Peru, and discussing the importance of linking global policy discussions and implementation on the ground. The other participants of the panel included the UN Special Rapporteur on the Rights of Indigenous Peoples, Vicky Tauli-Corpuz, and representatives from the Indigenous Peoples Alliance of the Archipelago, The Nature Conservancy, and Conservation International. Read more about the conference [here](#) and [here](#).



In September, Naikoa Aguilar Amuchastegui, WWF Forest and Climate's Director of Forest Carbon Science, organized a UK workshop on forest carbon finance. The objective was to gather evidence in support of climate finance for the preservation and consolidation of existing forest carbon stocks.

Forest carbon stocks – like those contained in national protected area systems and intact forest landscapes – are often considered “the low hanging fruit” of REDD+, acting as carbon sinks and a kind of insurance against forest destruction in other areas. However, there is a general lack of climate finance for the preservation and consolidation of forest carbon stocks, potentially leaving part of the forest solution to climate change out of the equation. The evidence gathered during the workshop is intended to be useful for mobilizing additional climate finance in support of forest carbon stocks and the benefits they provide.

The findings of the workshop will be consolidated into a peer-reviewed article, to be published in 2018.

THE PATHS TO REDUCING DEFORESTATION IN THE PERUVIAN AMAZON

By Daniela Amico, WWF-Peru

Emissions from deforestation and land use change make up the majority of Peru's contributions to global warming. In 2015, it is estimated that deforestation and land use change in Peru contributed 53 million tonnes of carbon emissions to the global atmosphere, and cut down 118,000 hectares of carbon-absorbing trees in the Peruvian Amazon.

If left to continue without interruption, the climate impacts could be

catastrophic. According to WWF studies to be published later this year on carbon stocks in protected areas of the Peruvian Amazon and its buffer zones, these forests store approximately 6,700 million tonnes of carbon emissions, an amount greater than six times the size of the emissions from the energy sector of the European Union.

To tackle this problem and prevent future emissions, the governments of Peru, Norway, and Germany signed a cooperation agreement in September 2014 to reduce greenhouse gas emissions

from deforestation and forest degradation through 2020. Like their ratification of the Paris Agreement, the Joint Declaration of Intent represents Peru's commitment to reducing their emissions and protecting their forests while cultivating sustainable livelihoods.

The goal of the Declaration is to achieve zero net emissions from land-use change and forestry in Peru by 2020, while contributing to the global goal of keeping temperature rise well below 2 degrees Celsius. Reducing deforestation by 50% and promoting the transition to sustainability in the agricultural, forestry, and mining sectors are the tasks set out by the Declaration to limit temperature from rising further above pre-industrial levels.

With funding from the Norwegian Agency for Development Cooperation (NORAD), WWF-Peru has been working to support the implementation of the



Community representatives receiving titles to their lands, accompanied by representatives of the Peruvian Government and Norad.

Declaration, in partnership with the National Program for the Conservation of Forests and Mitigation of Climate Change (PNCBMCC, per its Spanish acronym), and the Ministry of Culture, among other organizations. This support project used five strategies: foster active participation of civil society and indigenous peoples to increase commitments to prevent deforestation, develop low-carbon and production-protection agricultural policies that can be adopted by regional governments, monitor deforestation across three Amazon regions, improve land tenure of indigenous communities and strengthen the protection of four territorial reserves.

Legal recognition for Indigenous Peoples

A key element of WWF-Peru's mission is increasing the recognition of the work silently carried out for centuries by the people who inhabit the Amazon. With deep respect for nature and ecological knowledge, they are exemplary stewards of its forests and ecosystems. That's why WWF-Peru has worked with them as conservation partners, helping to strengthen their institutional capacities, secure greater protection of their territories, and increase gender equality and respect of both their culture and customs.

In July 2016, the Regional Government of Loreto began the process of titling 35 indigenous communities, as part of a strategy that recognizes the territorial rights of Indigenous Peoples and guarantees the conservation of 175,000 hectares of forests within its territory, containing approximately 71.5 million tonnes of greenhouse gases.

This process has involved close coordination with regional indigenous organizations and the Regional Government, and has produced a methodological guide for the titling process of native communities.

This guide has become an essential tool for officials in the field, as it details the enumeration, boundary establishment, georeferencing, and procedures of soil analysis necessary for a community to successfully receive legal titles to their land. As a result, 780 families from 4 different ethnic groups have become legal owners of their territories.

Strengthening the capacities of indigenous leaders to sustainably manage their territories is a priority for WWF, and we have been providing them with tools to implement subprojects for the recognition and titling of their land and the management of their natural resources.

More than 80 managers from 18 local and regional indigenous organizations were brought together in a first-of-its-kind intensive workshop to build on their communication, administrative, and management skills to allow them access to additional funds for the successful execution of natural resource management projects. Participants described a variety of planned projects that would benefit from the funds and facilitate the protection of forests in their territories, either through more sustainable practices like improving cocoa production, agroforestry systems, or through alternative revenue streams like Amazonian-fish breeding and tourism.

Amazonian Indigenous Peoples in Isolation and Initial Contact

The Amazon is one of the few places in the world that still has Indigenous Populations in Isolation and Initial Contact (PIACIs). They live in remote and extensive places, maintaining a close relationship of dependence with the forest. To protect the rights of these communities, the government has established Indigenous Reserves as a category of protected area to define strict

areas of protection and intervention with neighbouring populations.

Existing Indigenous Reserves in the country are in a good state of preservation, but given that PIACIs live in remote areas abundant in natural resources, their territories are permanently at risk of being invaded and deforested by illegal logging and drug trafficking, and face the constant pressure of a disorderly migratory agriculture and the growing market demands of forest goods, palm oil, and cocoa.

WWF-Peru has worked on strengthening alliances with government sectors to promote greater commitments to guarantee PIACI survival and protection. Meetings and training sessions with representatives of the Ministries of Culture, Health, Defence, and Education have generated solid results. For the first time, state officials from different sectors and levels of government have participated in patrols in the regions of Madre de Dios and Ucayali, visiting remote areas which had previously never received any form of government presence and learning first-hand the reality and needs of these communities. Working groups were formed to deal with illegal logging and patrols were carried out in three Indigenous Reserves and one Territorial Reserve, which confirmed development of illicit activities within the protected areas, allowing for better protection of their territories.

This close participation between different actors has also favoured the construction of protection plans for the three Indigenous Reserves: the Isconahua, Mashco Piro, and Murunahua. These plans represent the ultimate management tool for these territories, determining the roles and mechanisms for their protection by both public officials and civil society.

Development in harmony with the forest

Madre de Dios, located in Southeast Peru, is one of the regions most affected by deforestation. Between 2007 and 2015, the region lost approximately 12,700 hectares of forest each year to deforestation. Taking a long-term view in their approach, WWF-Peru has worked alongside a diverse set of stakeholders in the region – local and regional authorities, Indigenous Peoples, farmers – to establish a development vision that is inclusive, sustainable, and reduces deforestation.

Such is the case of the municipalities of Tahuamanu and Tambopata, the two territories in Madre de Dios most affected by forest loss, mainly due to the increase of low intensity agricultural activities. Both local governments have begun the process of updating their Concerted Development Plan, a management tool to promote development and improve the quality of life in the area.

Mayors Alain Gallegos Moreno and Alfonso Cardozo Mouzully, of Tambopata and Tahuamanu respectively, applied a participatory approach in the development of their Plans to implement national and regional strategies in ways that respond to their local development needs and expectations. As a result, Tambopata is seeking to convert 80,265 deforested hectares into productive areas, making use of already affected lands and preventing the destruction of untouched, natural areas within their jurisdiction. Similarly, Tahuamanu wants to turn degraded areas into productive land for agriculture and agroforestry to reduce pressure on their forests and promote semi-confined livestock for more efficient land use. Their Plan includes applying new technologies and timber production with added value to enhance permanent production forests.



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While previous development approaches responded to political interests and demands, they did not account for the future of their municipality's environment, especially in indigenous territories, where many live in Isolation and Initial Contact. Integrating a focus on reducing deforestation has allowed the technical teams of the municipalities to better recognize how their local actions contribute to the achievement of national conservation goals.

Low carbon agriculture

Coffee production is the main economic activity in the region of San Martín, located in Peru's northern Amazon. The Coffee Network of Roque is composed of more than 180 producers grouped in 11 committees. It has an average coffee production of 5 hectares per producer but many of them hold no legal rights to the land. This area, like many in the Peruvian Amazon, is undergoing a process of deforestation due to the expansion of small and medium-sized agriculture, the largest cause of deforestation in the country.

The Network has among its leaders a woman who stands out for her entrepreneurship and boldness. Leonor López Mondragón has fostered active participation in her organization, and motivated a strong presence of young leaders, abreast of the latest agricultural technologies, successfully increasing their productivity using what's known as the production-protection approach.

This approach ties more efficient land use, through technologies to improve both the quantity and quality of yields, to public policies that promote forest conservation. When combined, these processes make expansion through deforestation less attractive, preventing emissions from forest destruction and supporting sustainable development and improved livelihoods.



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With the support of Earth Innovation Institute, Forest Trends and Alternative Development Mechanisms (MDA, for its Spanish Acronym), and financed by WWF, they have successfully increased their productivity and reduced pressure on the forests by applying new agricultural techniques, including better plant management of coffee plantations, production of organic fertilizer using efficient microorganisms, and more selective harvesting.

Thanks to these efforts and Leonor López Mondragón's leadership, they have been able to install - through their own efforts and funds - two hectares of technical irrigation, after which they obtained financing from a public program for eight of their other hectares, improving the quality of their crops whilst reducing production costs and hectare needs.

With this access to affordable credit and leverage to create economies of scale, reduced costs, and transaction risks, Roque's Network is now eligible to become a sustainable agroforestry concession. This will provide them legal use of the land, opening access to new markets that privilege the sustainable origin of their products. Leonor López Mondragón's vision has demonstrated that it is possible to increase productivity, income, and conservation; living better while looking after the forests.

Technology that detects deforestation

What if an alarm went off whenever illegal deforestation happened in the Amazon? While not quite that responsive, National Program for the Conservation of Forests and Mitigation of Climate Change, (PNCBMCC, per its Spanish acronym) has a tool to generate an "early warning" for forest loss in the Peruvian Amazon. This technology reports on forest cover at least every 7 days and facilitates speedy interventions in illegal deforesting activities.

PNCBMCC has worked in coordination with the Regional Environmental Authority of the governments of Ucayali, Loreto, and San Martín to train technicians to process the information and identify potential illegal deforestation. Public presentations and training sessions were carried out to show the accuracy of the data during the registration of satellite information. This information was shared among state actors and civil society to take action to prevent the advance of the degradation of their forests.

In the indigenous community of Nuevo Saposoa, Ucayali, a field check with the residents exposed an area of wood extraction and agricultural expansion carried out by people from outside the community. This confirmed what the environmental authorities had recently observed in the satellite images.

Immediately, the team documented the deforestation and transferred the complaint to the Specialized Public Prosecutor's Office for sanctioning, which can include jail time and high fines.

In the case of the Reserved Zone of Sierra del Divisor, reports utilizing this technology established that the extent of affected forests amounted to 25 hectares, mainly due to the advance of subsistence agriculture and illegal logging. This information was later verified by an overflight carried out by the members of the Ministry of the Environment and Ucayali's Public Prosecutor's Office, who witnessed the existence of roads, collection points and the presence of vehicles for the transportation of cargo.

With access to this kind of technology, environmental authorities can have a much more realistic understanding of the state Amazonian forests. Being able to regularly monitor the changes in forest cover, and to determine the causes of deforestation - be it new illicit roads, grazing areas, or monoculture - they can

better plan their actions and strategies to prevent further deforestation.

Many paths to tread

These different paths show how many tools we can use to reduce deforestation, without putting forest protection at odds with sustainable development. In support of the Joint Declaration of Intent, WWF-Peru and its partners have used multiple tools, fostering active participation from all levels of government to reduce the progress of deforestation in the Peruvian Amazon.

We all have worked alongside local governments in the most deforested regions to promote more sustainable development in their jurisdictions,

converting degraded areas of pasture into productive ones and protecting forests from agricultural expansion. This has involved the two national indigenous organizations to ensure the respect of their rights – including the right to be Indigenous Populations in Isolation and Initial Contact – and initiated processes with government authorities to grant them legal tenure to their ancestral territories.

Technology also plays a role in the prevention of forest loss, along with the human capacity to use it. Local farmers have been introduced to new forms of production, and shifted to modern practices with higher crop yields, improving their income and preserving existing forests. Environmental regional

authorities have been trained and granted access to new satellite information tools to help them visualize illegal activities that reduce forests, and plan timely interventions to prevent illicit mining and logging activities.

There is no silver bullet; we need to use our whole toolkit to reduce deforestation and forest degradation and the carbon emissions caused by those processes. Dialogue and collaboration with all sectors of the Peruvian government, civil society, and the corporate sector are essential pieces of that kit. Only together can we protect both the future of our climate, our forests, and the livelihoods of those who depend on them.



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GROWING GREEN

We talked with Arief Data Kusuma of WWF-Indonesia about how he has been working with communities to help them protect their forests and implement sustainable economic practices in the Mahakam Ulu landscape on the island of Borneo



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What is your role at WWF and how did it start for you?

I am a Project Leader at WWF-Indonesia in the Mahakam Ulu Landscape Program, in East Kalimantan. It is a program I have been involved with from its beginning in 2007 when Indonesia, Malaysia, and Brunei agreed to work together to promote sustainable development in the Heart of Borneo (HOB) program. Then, in 2009, WWF-Indonesia succeeded in generating an agreement on sustainable development with Kutai Barat District's government.

What is your scope of work?

My scope of work is ensuring the successful implementation of the program, which includes working toward WWF-Indonesia and Kutai Barat's vision for a green economy in the HOB area. To do that we provide examples, or demonstrate the practices, of green economy within the framework and implementation of development in the Mahakam Ulu Landscape. This has included helping communities become community conserved areas or secure Hutan Desa, in one instance to help the community resist conversion to an oil

palm concession. The demonstration of green economy practices is targeted at the sources of development pressure, which can be from communities, government agencies or representatives, or private companies.

What made WWF-Indonesia choose Kutai Barat to develop this landscape program?

Because there is something interesting about Kutai Barat. All areas within the HOB have considerable forest and high biodiversity, making it a very strategic place in terms of conservation. Kutai Barat is located in the middle of HOB, and is a bridge between several conservation areas. It still has wide forest cover and high biodiversity, and the Mahakam River, a very important resource for the area, flows through it.

This made us think that it could have a high possibility for exploitation and so a good place to encourage sustainability with many stakeholders – governments, communities, and businesses. At the time, we worked mostly in the conservation areas and didn't yet have a place to demonstrate how to carry out sustainable development at the same time as effective conservation. Fortunately, we were able to find partners in the communities and government to work with to make this work possible.

What is the biggest obstacle?

The challenge is quite big! In truth, there are 3 aspects of development: social, economic, and environmental. However, we are accustomed to a very influential mindset which prioritizes only the social and economic aspects. So, when we include a new concept – the environment – as the third aspect of development, the obstacles are extraordinary. People think money is more important than the environment. What matters now is that



they'd rather have money to buy food to eat than saving the environment. That mindset becomes a great challenge, because people tend to do business as usual rather than do something innovative, considering the environmental aspects.

Why were you interested in this project?

Because we are trying to initiate something new and unusual, which is a great and exciting challenge. This challenge is the development and implementation of green economy principles, meaning social, economic, and environmental priorities. If we can incorporate environmental considerations into economic development, it will also make an extraordinary contribution to greater sustainability, which I think is a challenge that's worth confronting. We still have work to do, but we want to show what we hope can be replicated or emulated by other community groups, even outside of Borneo, outside of Indonesia.

Can you share a success story with us?

Our first project in Kutai Barat was with the village of Linggang Melapeh. The spring that flows through the village comes from an area called Gunung Eno (Gunung means mountain in Indonesian). While some in Linggang Melapeh and its neighbouring villages were aware of the importance of this area in supplying water, this was not the case for everyone, including the village located in the Gunung Eno area.

Along with some initial community partners, we worked to show how protecting their forests could have benefits beyond those water conservation, especially from ecotourism. Once the communities agreed, we helped them to establish Gunung Eno as a protected forest area.

This was complemented by a spiritual ceremony in which the communities promised the spirits of the forests that they would protect the area from external threats and not damage the ecosystem themselves.

Then WWF-Indonesia worked with the communities to develop ecotourism activities, encouraging the formation of a community tourism group, coordinating with smaller groups focused on potential activities like handicrafts, dance, and nature-friendly forest excursions. An important milestone was when Linggang Melapeh's community tourism group won first place in a community tourism group event at the provincial level and then fifth place at the national level. This built an important momentum and increased the people's confidence, but it also made the benefits from investing in their forests and forest-related ecotourism more clear. Their efforts received visibility, and in return they were able to increase their income by maintaining and utilizing the environment in a sustainable manner.

The experience at Linggang Melapeh village is very memorable, because it was not easy to bring everyone to agreement. Now the village feels like home and we have an emotional connection with the villagers; through this shared project, they are like family to us. We are pleased because our efforts had a positive impact and provided environmental, social, and economic benefits that the people can see clearly.

REDD+ SPECIES

SULAWESI BEAR

Common Name:

Sulawesi Bear

Scientific Name:

Ailurops ursinus

Location:

Indonesia

Status:

Vulnerable

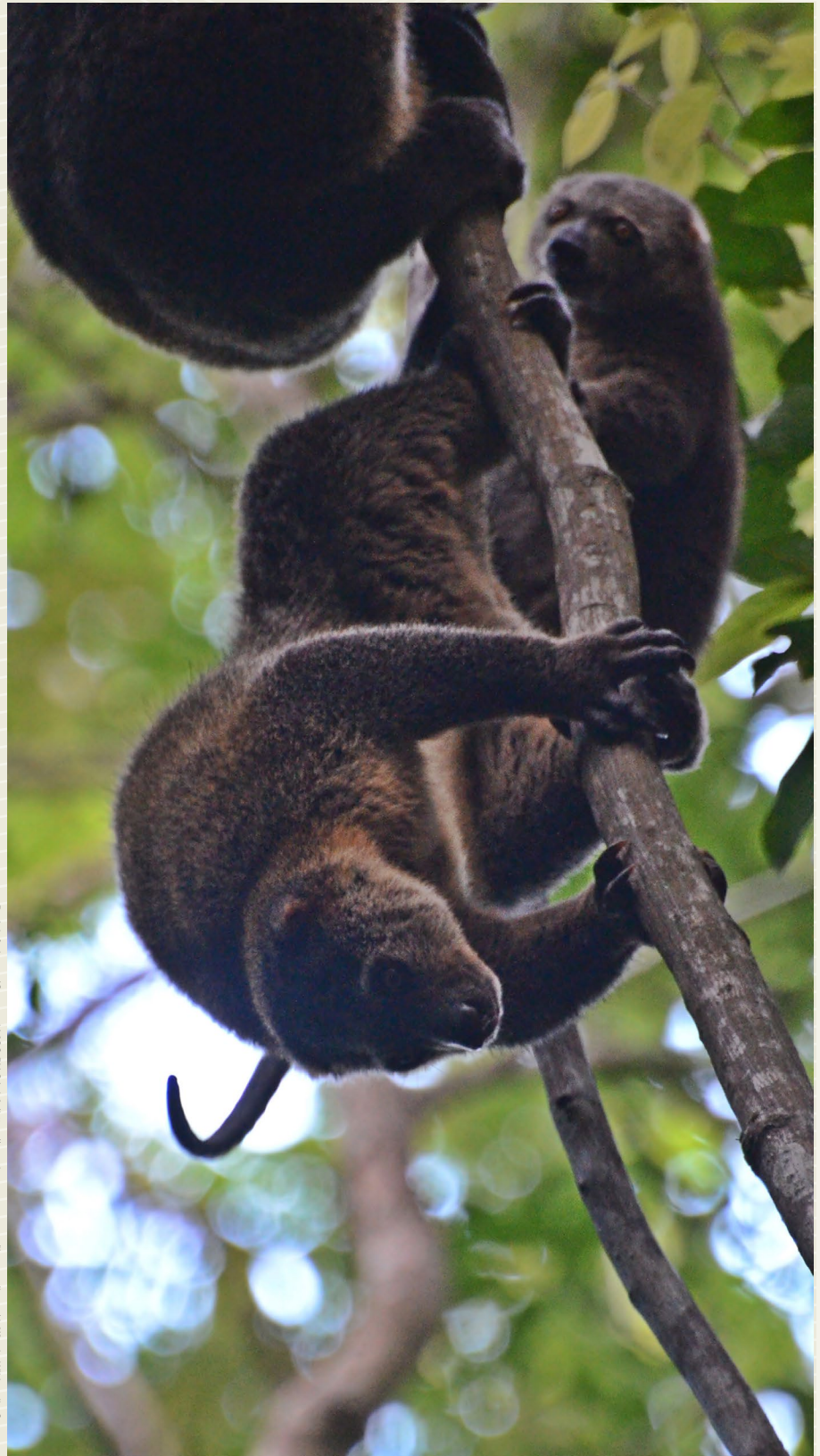
Read more:

[IUCN Red List](#)

Indonesia's Sulawesi Bear is actually a marsupial named for its thick, bear-like fur. Named for the island of Sulawesi, these tree-dwellers are also found on the Indonesian islands of Butung, the Peleng Islands, and the Togian Islands. They are often found in pairs, and spend long periods of the day resting in order to digest their leafy diets.

While they can be widespread in suitable habitat, their population is decreasing due to hunting, the exotic pet trade, and habitat loss from small-scale agriculture and large-scale logging. Sulawesi Bears are most frequently found in undisturbed tropical lowland moist forests. They avoid disturbed habitats, making the conservation of their forests crucial to their survival.

By Ariefahman (Own work) [CC BY-SA 4.0 (<https://creativecommons.org/licenses/by-sa/4.0/>)] via Wikimedia Commons



VIEWPOINTS

On Carbon Emissions

“TO REALISE THE GOALS OF THE PARIS AGREEMENT AND HOLD THE INCREASE IN GLOBAL AVERAGE TEMPERATURE TO WELL BELOW 2C, WE MUST REACH PEAK EMISSIONS AS SOON AS POSSIBLE AND THEN ACHIEVE A RAPID DECLINE SOON AFTERWARDS. THESE RESULTS FROM THE DUTCH GOVERNMENT SHOW THAT THERE IS A REAL OPPORTUNITY TO GET ON TRACK.”

–Prof Lord Nicholas Stern, President of the British Academy.

On Indigenous Rights and Climate Change

“INDIGENOUS PEOPLE’S RIGHTS NEED TO BE PROTECTED IN THE BEST WAY POSSIBLE, NOT JUST FOR THEM BUT BECAUSE THEY ARE ALSO ABLE TO PROVIDE SOLUTIONS TO MANY OF THE WORLD’S PROBLEMS FROM CLIMATE CHANGE TO BIOLOGICAL DIVERSITY. IT IS IN THE SELF-INTEREST OF STATES AND EVEN CORPORATIONS IN THE MEDIUM AND LONG TERM TO PROTECT AND LISTEN TO THESE PEOPLE - THE QUESTION IS, WILL THEY REALISE THIS IN TIME?”

– Victoria Tauli-Corpuz, UN Special Rapporteur on the Rights of Indigenous Peoples.

On Connecting the Dots

“IT IS TIME TO BETTER INTEGRATE INTO THE CLIMATE AGENDA THE URGENT NEED TO PROTECT BIODIVERSITY, AND TO MAKE EXPLICIT THE LINKS THAT EXIST BETWEEN NATURE AND HUMAN DEVELOPMENT. BUT WE ALSO NEED TO BETTER INTEGRATE THE ECONOMIC DIMENSION OF SUSTAINABILITY WITH OUR CONCERNS FOR THE SOCIAL AND ENVIRONMENTAL DIMENSIONS. A STABLE CLIMATE IS AS IMPORTANT FOR A HEALTHY ECONOMY AS IT IS FOR HEALTHY ECOSYSTEMS.”

– Manuel Pulgar Vidal, leader of the WWF Climate and Energy Practice.

On Political Leadership

“IN THE ABSENCE OF LEADERSHIP FROM WASHINGTON, STATES, CITIES, COUNTIES, TRIBES, COLLEGES AND UNIVERSITIES, BUSINESSES AND INVESTORS, REPRESENTING A SIZEABLE PERCENTAGE OF THE U.S. ECONOMY WILL PURSUE AMBITIOUS CLIMATE GOALS, WORKING TOGETHER TO TAKE FORCEFUL ACTION AND TO ENSURE THAT THE U.S. REMAINS A GLOBAL LEADER IN REDUCING EMISSIONS.”

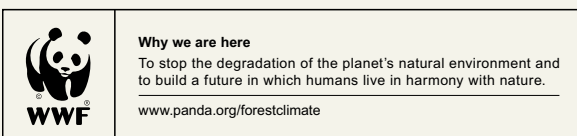
– 2,300 signatories (to date) of the “We Are Still In” Declaration.

On the Bioenergy Debate

“THE MOST IMPORTANT QUESTION TO WWF IN THE BIOENERGY DEBATE IS “WHAT TYPES OF BIOENERGY PROVIDE A SIGNIFICANT CLIMATE BENEFIT OVER FOSSIL FUELS AND DO NOT SIGNIFICANTLY IMPACT BIODIVERSITY?” THE FIRST POINT IS CRUCIAL GIVEN THAT THERE ARE TYPES OF BIOENERGY THAT, WHILST TECHNICALLY ‘RENEWABLE’, CAN HAVE HIGHER IMPACTS ON CLIMATE CHANGE THAN THE FOSSIL SOURCES THEY REPLACE.”

-- Martha Stevenson, Director of Forests Strategy & Research, WWF-US.

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