

Generating capacity, commitment, and consensus to support Trees on Farms for Biodiversity



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Agricultural productivity and biodiversity conservation are inseparable

For the success of the post-2020 global biodiversity framework, it will no longer be sufficient to seek to limit biodiversity loss through agriculture. Instead, agriculture must become an integral element of sustainable landscapes a force for conserving biodiversity and providing vital ecosystem services to local populations and securing livelihoods.

Trees on Farms (TonF) play a critical role in contributing to biodiversity conservation in agricultural landscapes through in-situ conservation, by connecting fragmented wild habitats and providing stepping-stones between protected area networks and conserving soil biodiversity and agrobiodiversity. TonF are one of the key nature-based solutions to the conservation and food production challenges we face as they also play a critical role in achieving sustainable, biodiversity friendly agricultural landscapes.

To date, TonF are still invisible in most National Biodiversity Strategies and Action Plans (NBSAPs).



The 'Trees on Farms for Biodiversity' project

Funded by the International Climate Initiative (IKI), the **IKI-TonF project** was a joint programme implemented between 2018 and 2021 at the global level and in five countries: **Honduras, Peru, Uganda, Rwanda, and Indonesia**. It aimed to influence decision making and action on the ground to scale up the use of Trees on Farms (TonF). The project demonstrated how ecological, financial, and societal benefits of TonF can contribute to improving human wellbeing hand in hand with biodiversity outcomes, as well as countries' abilities to meet the Aichi Biodiversity Target 7 (Sustainably Managed Agricultural Areas).

Led by World Agroforestry (**ICRAF**), the IKI-TonF project was implemented in Peru by the regional ICRAF office in collaboration with the Ministry of Environment (**MINAM**), the General Directorate of Biological Diversity of the Ministry of Environment (**DBDB**), the Natural Resources Evaluation Directorate from the General Directorate of Agrarian Environmental Affairs (**DGAAA-DERN**) of the Ministry of Agrarian Development and Irrigation (**MIDAGRI**), the National Forest Authority (**SERFOR**), the National Agricultural Health Service of Peru (**SENASA**), the Rural Agricultural Productive Development Programme (**Agro Rural**), the National Institute for Agricultural Innovation (**INIA**), the National Institute of Quality (**INACAL**), the National Committee of Biological Diversity (**CONADIB**), and the Federation of Municipal Savings and Credit Banks (**FEPCMAC**).



Key achievements

- **Stakeholders adopted the TonF concept for pioneering sustainable management of productive landscapes:** The work in Ucayali generated interest in actors and programs including the Sustainable Productive Landscapes project (PPS), funded by the Global Environment Facility (GEF) and implemented by the United Nations Development Programme (UNDP), and of the Agroecological Regenerative Cocoa (ARC) project which involves CGIAR centers.
- **Improved TonF strategies and investment mechanisms established at the national level:** Actors from the government (MIDAGRI) and finance sector (FEPCMAC) co-designed multi-sectorial investment portfolios. One ad-hoc financial product targeted coffee smallholders integrating TonF-based low-emission technologies as part of the Nationally Appropriate Mitigation Actions (NAMAs) was submitted for funding by the Peruvian Government in 2021.
- **National benchmark definition and standards for TonF and agroforestry adopted:** A benchmark definition for TonF and agroforestry for the agricultural sector was formulated through a participatory consensus process and integrated in the National Agricultural Policy.
- **TonF indicators to be included in Peru's natural capital accounting and reporting to the Convention on Biological Diversity (CBD):** A working group on Agroforestry and Small-Scale Forestry was established within SERFOR and tasked to harmonize norms and regulations about TonF. This enabled MINAM-DGBD to insert TonF into the agenda of the National Committee of Biological Diversity (CONADIB). As part of this process, a roadmap for the promotion of agroforestry and TonF for biodiversity conservation is in final stage of development with governmental actors from the Agrarian and Environmental sectors.



INITIAL SITUATION

Peru has the second largest extent of forests in Latin America holding almost 7,000 petagrams carbon. Over the last 15 years, the country has lost more than 125,000 ha of forest annually and the trend is continuing despite government efforts and willingness to implement deforestation reduction strategies. Almost 100% of deforestation is caused by agriculture. Loss of forests occurs mainly in the central Amazon (Ucayali and Huánuco regions) and the northern Amazon area (San Martín region) with overall more than ten active forest frontiers where varying interests result in conflicts on natural environments, resources, and commodities. About 80% of annual deforestation in Peru is due to conversion to small agricultural patches of less than five ha. Forest is converted into a shifting mosaic of permanent crops, pastures, and fallow-based systems of annual crops, reflecting the diversified livelihoods of smallholders.

Prior to the IKI-TonF project, the awareness and knowledge of the impact of TonF on biodiversity and for human wellbeing was neither sufficiently available in the agricultural practice on the ground, nor was it mainstreamed in national policies and strategies. Peru is a signatory to the CBD and the United Nations Framework Convention on Climate Change (UNFCCC) and must report on progress in meeting targets for both. The National Biodiversity Strategies and Action Plan (NBSAP) of Peru referred to the Aichi Biodiversity Targets but TonF were not mentioned as a strategy to achieve these. In fact, non-forest trees in productive areas were 'invisible', they were not counted in important national assessments, such as the National Forest Inventory and the National Greenhouse Gas Inventory. One of the barriers to promoting TonF may have been that agriculture and tree resources were generally managed by different ministries, directorates, and other governmental entities (except for fruit trees, that are considered crops), and an aligned and coordinated approach was lacking.



WHAT DIFFERENCE DID THE IKI-TonF PROJECT MAKE?

Stakeholders adopted the TonF concept for pioneering sustainable management of productive landscapes

Peru was one of the world's worst coronavirus hotspots and field work was largely impacted by the pandemic, along with political unrest and an increase of illegal coca production and trade coinciding over the project period in the areas of intervention. The project team maintained its activities remotely through the office in Lima, engaging with farmers, organizations and the private sector operating locally. Research by three master students, one from Helmholtz Centre for Environmental Research (UFZ) and two from the Leibniz University Hannover helped showcasing the benefits of TonF to biodiversity conservation and livelihoods.

The IKI-TonF project succeeded to engage a great variety of partners in a series of online deep dive and co-designing workshops. Local farmer associations and committees, authorities from the district government and national stakeholders from both the agriculture and the environmental sectors including both ministries, MIDAGRI and MINAM, supported the development of a technical and an investment concept for incentives to sustainable oil palm and cocoa production.

The work in Ucayali and the insights gained on options on how to implement the TonF approach generated interest in further players in the field. In 2020, the Sustainable Productive Landscapes project

(PPS), funded by the GEF and implemented by UNDP, embraced the concept of a biodiversity friendly tree-based system for key crops (cocoa and oil palm) and committed to invest in piloting the approach in the Ucayali and Huánuco regions, where app. 7,300 cacao and 1,900 oil palm producers are located. PPS is one of the pioneer projects in Peru aiming to strengthen sustainable management of productive landscapes and to increase economic opportunities for rural producers. The results gained from the implementation of TonF through this project will inform and leverage changes across stakeholders of the public and private sector at the sub-national and national level.

In 2021, the Agroecological Regenerative Cocoa (ARC) project adopted the TonF approach. Led by the Alliance of Bioersity International and CIAT, the project aims to develop cocoa production systems with agroforestry to improve the quality of life of producers in Ucayali and at the same time conserve and recover biodiversity. The implementation of pilot plots will open the opportunity to promote awareness of the role TonF can play in biodiversity conservation in landscapes to cocoa technicians, producers, and other relevant actors in Ucayali.

Improved TonF strategies and investment mechanisms established at the national level

Prior to the IKI-TonF project, many actors and programs in Peru were already engaged in tree planting activities for both restoration and climate

change mitigation. SERFOR held the technical capacity and infrastructure for improving the condition of degraded forests, yet there was no defined program for TonF and agroforestry. The IKI-TonF project was key to stimulate and help preparing national strategies and investment mechanisms for TonF, thus enabling Peru to capitalize on its large momentum of restoration and replanting efforts.

Through a mapping exercise of potential financing mechanisms, the TonF project was able to outline various multi-sectorial investment portfolios for piloting TonF and identify key actors with promising upscaling potential from the relevant fields including agriculture, forestry, and conservation. One example was the coffee sector that was developing a national plan with a strategic sustainability component. Throughout 2018 and 2019, the IKI-TonF project engaged with MIDAGRI, UNDP, and the finance partner FEPCMAC to co-design ad-hoc financial products based on TonF-based low-emission technologies for coffee smallholders as part of the Nationally Appropriate Mitigation Actions (NAMA). They formed a NAMA Facility Project Consortium and developed a joint NAMA coffee proposal, with an integrated TonF mitigation part. The proposal is on hold for resubmission by the country to the NAMA Facility fund or other eligible funds, yet the lessons learnt are available to partners for implementation, e.g., national and private banks, actors of the coffee sector who are implementing the national plan, and actors of the environmental sectors who are developing standards for ecosystem-based coffee management.

National benchmark definition and standards for TonF and agroforestry adopted

The IKI-TonF project facilitated a participatory consensus process across the agricultural sector to develop an official benchmark definition for TonF and agroforestry in agriculture. The strategic importance was discussed in several initial meetings with key departments and agencies from MIDAGRI, showcasing how clear definitions promote, regulate, and facilitate consistency in policy development, setting of targets and reporting about trees on farms. These efforts bore fruit when, in October 2019, DGAAA-DERN from MIDAGRI convened a series of technical meetings facilitated by the IKI-TonF project to work on a consensus for a sectoral benchmark definition of agroforestry. A technical proposal with a definition was prepared by the project team and submitted to the DGAAA-DERN. The definition was adopted in 2021 and is presented in the National Agricultural Policy.

In 2020, a technical multi-stakeholder committee with cross-sectoral experts from the agricultural and environmental ministries working on prioritized

agricultural value chains, developed national level standards for ecosystem-based coffee farming to be submitted to the National Institute for Quality (INACAL). This was the first time that this type of standard was regulated. It took several times of back and forth among the institutions involved and INACAL as the type of approach was new and difficult to align to the usual process of introducing and approving new standards. The coffee standards are currently under approval and work has started on those for cocoa.

TonF indicators to be included in Peru's natural capital accounting and reporting to the CBD

Realizing the need of mainstreaming and regulating the TonF approach, SERFOR established an **internal Working Group on Agroforestry and Small-Scale Forestry** in 2020. The group comprised technicians of different directorates and sought to harmonize norms and regulations for family farmers and processes of information exchange across the participating institutions and among the central and decentralized units in the regions. The work of this group enabled MINAM-DGBD, the national authority responsible for representing the country at the CBD and preparing national reports, to insert TonF in the agenda of the National Committee of Biological Diversity (CONADIB). This represented a first step towards the recognition and inclusion of TonF in Peru's Post-2020 National Biodiversity Strategy.

TonF ready to scale out

As highlighted above, the uptake of TonF by the PPS and ARC projects based on first results of the IKI-TonF project in Ucayali clearly demonstrated the potential for out-scaling the approach. Several efforts were made to extend the learnings and innovations from Peru and showcase the role of TonF to a larger audience. In October 2020, the IKI-TonF project in collaboration with MINAM organized a digital event bringing together more than 50 decision-makers and technicians from ministries and other Peruvian government agencies, as well as representatives of civil society organizations working in agriculture and forestry. An unexpected opportunity to scale out arose when the project was invited to present TonF as a biodiversity friendly approach in the cocoa sector at the **World Cocoa Foundation (WCF)'s 2020 Partnership Meeting**. The international event was attended by 450 participants from cocoa and chocolate manufacturing, processing, supply chain management, and other relevant companies, representing more than 80% of the global cocoa market. The presentation aimed to raise awareness that successful agroforestry models depend on the farmers and the context. There is no "one size fits all", taking a system approach is essential to scale TonF as a successful approach to biodiversity conservation and enhanced livelihoods.



CONCLUSIONS

A driver that helped the project promote TonF in Peru was that the country's National Determined Contribution (NDC) already comprised mitigation measures addressing agroforestry. The agricultural sector included a measure on shaded cocoa and coffee plantations, as well as one on Amazon silvopastoral systems, and there was a measure on agroforestry in the Land Use, Land-Use Change, and Forestry (LULUCF) sector.

Furthermore, Peru's 3.2 million ha pledge to the **Bonn Challenge** in 2014 offered opportunities for promoting the TonF approach. The degraded landscapes identified in the pledge for restoration overlapped with the agricultural land-use mosaic managed by family farmers in the Amazon region. Also, there was an increased recognition of the benefits of mosaic restoration versus large-scale forest landscape restoration. Consequently,

smallholders who managed biodiversity friendly production systems based on crops of local importance were increasingly seen as having a pivotal role in supporting restoration processes.

The key success of the IKI-TonF project achieved in Peru was the improved alignment and collaboration on agroforestry across the relevant governmental sectors (Water, Forestry, Agriculture, Environment). Despite the frequent changes of focal points in the ministries, political instability, and the pandemic, the project team facilitated a collaborative process building consensus for a sectoral benchmark definition of agroforestry, and through this contributed to an increased visibility of the TonF concept. There is now a clear commitment of government actors to invest in joint projects with civil society, private and public sector actors and to implement TonF targets.



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