

COOKING TO COMPENSATE?

THE SWITZERLAND-PERU AGREEMENT FOR THE TRANSFER OF CARBON CREDITS UNDER THE PARIS AGREEMENT AND THE TUKI WASI IMPROVED COOKSTOVES PROGRAMME.

Despite the fact that the Switzerland-Peru agreement for the transfer of carbon credits has received a lot of attention internationally, it is little known in Peru. CooperAcción has been commissioned by Caritas Switzerland to carry out a study on its implementation¹. This task responds to the need for civil society to better understand and prepare for the implications of this new type of trade.

Here we present a summary of the findings based on interviews and a visit to Huánuco and La Libertad, where the first programme under this agreement, the Tuki Wasi improved cookstoves of Microsol, is being implemented.

With the Paris Agreement, signed in 2015, the participating governments resolved to reduce greenhouse gas (GHG) emissions, aiming to keep the global average temperature increase to well below 2°C above pre-industrial levels. To this end, countries committed to take concrete actions, or “Nationally Determined Contributions” (NDCs).

Since some governments foresaw difficulties in achieving their targets at a national level only, Article 6 of the Agreement considers the possibility of transferring carbon credits between nations. In this way, one country can finance projects that implement technologies and practices to reduce GHG emissions in another, and transfer these reductions, claiming them as part of its own national compliance. This is called an “Internationally Transferred Mitigation Outcome” (ITMO).



The first agreement to realise an ITMO was signed in October 2020 between Switzerland and Peru. A year later, the Foundation for Climate Protection and Carbon Offset (KliK Foundation) of Switzerland and the company Microsol signed a contract for the implementation of the Tuki Wasi Programme within the framework of the bilateral agreement. Tuki Wasi aims to reduce carbon emissions and generate health benefits for the rural population through the construction of improved cookstoves in the Peruvian Andes.

The bilateral agreement between Switzerland and Peru and the Tuki Wasi programme are among the first expressions of the ITMO mechanism, and have received much critical attention, both in expert circles and in the international media². These transfers have been criticised as a way to avoid the need for drastic changes in the consumption practices of citizens in Switzerland. On average, a person in Switzerland emits 4.1 tonnes of CO₂ per year, more than twice as much as a Peruvian person (1.7 tCO₂). If emissions from imports are considered, the impact of an inhabitant in Switzerland rises to 14 tCO₂,



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compared to a world average of 4.7 tonnesⁱⁱⁱ.

The Swiss “CO₂ Act”^{iv} stipulates various instruments to reduce different types of GHG emissions; among them, importers of fossil fuels are required to offset part of the CO₂ emissions resulting from their release. To do so, they must submit emission reduction certificates, with a certain proportion that can be carried out abroad. Oil importers can charge up to a maximum of 5 cents for every litre of fuel they sell to feed a fund for the purchase of carbon credits. These credits are submitted to the government and counted as emission reductions in Switzerland’s NDCs.

On the Peruvian side, the National Registry of Mitigation Measures (Registro Nacional de Medidas de Mitigación, RENAMI) will allow the compilation, registration, monitoring and transparent management of information on emission reductions due to mitigation measures in the country. It will cover all mitigation projects, whether private or governmental, including ITMO transfers under the Switzerland-Peru bilateral agreement, and will allow adjustments to be made in the event that mitigation results are transferred to another country to avoid double counting.

RENAMI must be functional before the first ITMO can be validated, which is taking longer than expected. During RENAMI’s prior consultation process, there were around 800 points of observations, mainly due to concerns about projects affecting forests and thus the territorial rights of indigenous peoples. The Ministry of Environment is currently working to respond to them.

Improved cookstoves and climate

Worldwide, 2.8 billion people cook with biomass, causing between 1.9% and 2.3% of global GHG emissions. In Peru, this is between 1.8 to 2.3 million households, or between 20 to 28% of the population, mostly in rural Andean and Amazonian areas^v. Firewood remains the main source of energy in the residential sector, accounting for 50% of total consumption. Emissions from biomass burning are estimated at 15,633 Gg CO₂ eq^{vi}, or about 5% of total emissions (or 10% of the energy sector). The burning of fuelwood is therefore a relevant factor in meeting the Peruvian government’s commitment to a 30% reduction of GHG emissions from the current level by 2030.

Peru is one of the countries with the most projects and research on improved cookstoves, developed especially since the 2000s. Between various state and non-governmental organisation programmes, such as the Fondo de Cooperación para el Desarrollo Social (FONCODES), at least 550,000 improved firewood cookstoves have been installed to date. In addition, almost one million gas cookers have been distributed through the Fondo de Inclusión Social Energético (FISE). However, it is not known how many of the installed

cookstoves are in use, as their lifespan is only a few years and some have never been functional.

In 2018, the government of Peru defined 62 mitigation actions to meet the committed NDCs^{vii}. Among them, measure No. 9 – “Clean Cooking” – focuses on the promotion of improved wood and gas cookstoves in rural areas under the responsibility of the Ministry of Energy and Mines (MINEM) and the Ministry of Development and Social Inclusion (MIDIS). The target set was to install 735,911 improved cookstoves and 919,182 LPG cookstoves during the period 2010 to 2030, with a mitigation potential of almost 2 MtCO₂ eq per year by the end of this period, reaching a cumulative 25 MtCO₂ eq in total. However, it is unclear how much progress has been made on this measure, and whether the entities involved currently have the technical capacity for the monitoring and verification necessary to certify such emissions savings.

The Tuki Wasi programme

The Tuki Wasi programme was developed by the French social enterprise Microsol as an attempt to curb CO₂ emissions by reducing the use of firewood for cooking, and at the same time contribute to the achievement of several of the Sustainable Development Goals (SDGs). The programme uses the Gold Standard TPDDTEC methodology for improved cookstoves, in the development of which Microsol played an important role^{viii}. Microsol has extensive experience from a previous programme, Qori Q’oncha, which was the first to produce carbon credits for the private market based on improved cookstoves.

Tuki Wasi started in 2018 with preparatory baseline studies, and reached a first milestone in 2021 with the financing agreement with the Swiss oil offset funds through the Climate Cent Foundation (predecessor of the KliK Foundation). In the pilot phase (2020-2021), 1,000 kitchens were built in the regions of Huánuco and La Libertad. Implementation of the programme started in 2022, with the goal of building 40,000 improved cookstoves in Huánuco, La Libertad and Cajamarca by 2030. This should benefit around 200,000 people, and aims to reduce GHG emissions by 400,000 to 750,000 tCO₂eq.

The first ITMO transfer was initially planned for 2022. By 2023, the necessary documentation had been submitted to the authorities in Switzerland for validation, while the validation and authorisation process on the Peruvian side was on hold, as the RENAMI registration and the respective norm had not yet been approved. If these conditions are met, the first transfer could be authorised in 2024.

For the implementation of the kitchens, Microsol contracted “operators” through three competitive selection processes. In Huánuco, the Centro de Atención

y Promoción Social – CAPSOCIAL – was chosen; in La Libertad, the company Inkawasi Soluciones SAC; and in Cajamarca, two operators working in two different areas: EACYS – PRACTIFOGÓN JCS and Sostenibilidad de Bosques para el Desarrollo (SBD). According to Microsol, 7,000 cookstoves have been installed in Huánuco, 7,500 in La Libertad, and 10,000 in Cajamarca; this means more than half of the target of 40,000 has been reached. The improved cookstoves installed have some variations according to the operators, but they are models that have proven their functionality in the past, with a life span of between 5 to 8 years.

Apart from the installation, the operators are also in charge of monitoring and support at the beginning, to ensure that users know how to light the stove and do not make inappropriate modifications. Later, they will have to ensure that repairs are carried out, components replaced and that reconstruction takes place with components that can be reused to prolong their lifespan.

According to the testimonies collected from the beneficiaries, the cookstoves do serve to keep smoke out of the rooms where food is prepared and savings on firewood are around 50%. In all cases, the positive value of the improved cookstoves for the lives of women and their families was reaffirmed, and the majority of beneficiaries stated that the cookstoves helped them to prepare food in less time.

Evaluation

The criteria that mitigation projects must meet in order to be considered for ITMO transfer under the Switzerland-Peru agreement are: 1) additionality, i.e. the reductions would not have been achieved without Swiss support; 2) contribution to sustainable local development, without negative social or environmental consequences; and 3) respect for Peruvian laws and non-violation of human rights.

Additionality: This principle is not yet defined in the Peruvian regulations and it is therefore too early to determine whether the Tuki Wasi programme complies with it. However, it is clear that the core element of the programme, the improved cookstove, is nothing new or innovative for Peru. It is a simple technology appropriate for rural areas far from urban centres and road access.

For Tuki Wasi, the aim is to select locations that have not previously benefited from other improved cookstove programmes. However, in all three regions, improved cookstoves had already been installed in the past by FONCODES or other state or private organisations. This necessitates coordination in order to avoid the different programmes overlapping. Microsol has shared the list of communities in which it plans to intervene and has asked FONCODES for information on its intervention areas; it also has access to databases of people who have

previously received cookstoves, which makes it possible to exclude these families on an individual basis.

At the same time, Tuki Wasi has an important advantage over other programmes because of the obligation to demonstrate that the cookstoves are actually being used and that they produce the promised reductions. The same mechanism of financing through carbon credits could therefore address a recurring problem seen in many rural development initiatives, which is the lack of accompaniment and continuity.

Contribution to sustainable development: Tuki Wasi's contribution to several Sustainable Development Goals, such as fighting poverty (SDG 1), ensuring healthy lives (SDG 3), access to clean energy (SDG 7) and sustainable forest management (SDG 15), among others, seems evident. Microsol has secured certification for seven SDGs (1, 3, 4, 7, 8, 13, 15), and is in the process of expanding the list with five additional objectives (2, 5, 11, 12, 16).

It should be recalled that Tuki Wasi is a programme for reducing carbon emissions based on the amount of energy required for cooking. While this could also have a positive effect on reducing deforestation in some places, this is not a priority approach, and the programme does not take into account the condition of the forests in the implementation areas.

Consultation and free, prior and informed consent: In the intervention area, there are communities recognised as indigenous, which would require a prior consultation process for the implementation of the Tuki Wasi programme. According to Microsol, so far they have not had contact with communities recognised as indigenous, but they are preparing protocols and seeking recommendations.

Microsol requires local operators to carry out local public consultations, after which they must produce a report and a Record of Agreement. Once implemented, the main safeguard mechanism foreseen is a continuous contribution book, which is available at a designated location in the intervention area. Upon receiving the installed cookstove, the beneficiary must sign a handover certificate, which contains instructions on the proper use of the cookstove. Furthermore, the beneficiary "agrees to hand over [...] the management and environmental benefits generated by the use of the improved cookstove, i.e. the carbon credits obtained through the valorisation of the improved cookstove".

However, there are problems with regard to the information provided to the beneficiaries of the programme; none of the users interviewed understand this clause even though they have signed the agreement. Consequently, it cannot be said that they have made a decision based on appropriate information.

In interviews, operators admit that, given the limited time available for meetings, not enough has been explained about the carbon finance system. In addition, team members did not have a clear understanding of the basics of climate change and the relationship between wood burning and CO₂ emissions. Microsol recognises that there are shortcomings in this area and has taken steps to strengthen the consultation and information process.

Final considerations: contribute instead of compensate

In general terms, we can state that the TukiWasi improved cookstoves are being installed in regions where they are needed; they work in their main technical aspect to prepare food; they improve the air quality inside the rooms; and they manage to reduce the consumption of firewood significantly, and hence the emission of CO₂.

That said, the framework of the present study has not allowed for an in-depth analysis that should include the technical aspects of measuring emission reductions. Given that the crucial steps of validation and approval of the programme are still pending, and that there are important uncertainties regarding the methodology, it remains to be seen whether the implementation of the

cookstoves will effectively translate into carbon credits in accordance with the strict guidelines governing ITMO transfers.

Beyond the TukiWasi programme in particular, important questions remain about the dimension of (in)justice embedded in this type of credit transfer between nations. Ultimately, it is the countries of the North, the biggest CO₂ emitters, that owe something to the countries of the global South. And it is they who should radically reassess their excessive consumption behaviour, starting where most emissions are generated, in cars. A carbon credit “offset” system, such as the ITMO transfer, risks confusing these priorities and using them as an excuse for not touching the “sacred cows” of Northern consumers. In this case, improving the kitchen of a lady from Huánuco, however good that may be, could have a perverse negative effect on the overall reduction of emissions.

Finally, it would not only be fairer, but also more efficient, if Switzerland focused on contributing to emissions reductions by financing improved cookstoves or other similar programmes through a mitigation fund without the need to claim it for its NDCs through a mechanism that is highly complex in its monitoring and verification requirements.

ⁱ Summary based on the full report (in Spanish), available on the web site of CooperAcción: <https://cooperaccion.org.pe/publicaciones/>

ⁱⁱ New York Times (2022), «Switzerland Is Paying Poorer Nations to Cut Emissions on Its Behalf», 10.11.2022.

ⁱⁱⁱ Our World in Data: Country profiles. <https://ourworldindata.org/co2-and-greenhouse-gas-emissions#co2-and-greenhouse-gas-emissions-country-profiles>.

^{iv} Law 641.71 of 2011. «Bundesgesetz über die Reduktion der CO₂-Emissionen».

^v 1.8 in INEI (2019), 2.3 in Encuesta Nacional de Hogares (2015).

^{vi} Ministerio del Ambiente. 2023. Inventario Nacional de Gases de Efecto Invernadero 2000-2019, p. 65.

^{vii} Gobierno del Perú (2018), Grupo de Trabajo Multisectorial de naturaleza temporal encargado de generar información técnica para orientar la implementación de las Contribuciones Nacionalmente Determinadas (GTM-NDC). Informe Final, pp. 506; 543-544.

^{viii} Gold Standard. 2021. «Reduced Emissions from Cooking and Heating: Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC)». Version 4.0.

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