



Microsol

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I N S T I T U T I O N A L M E M O I R





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Microsol SAS

Writing/Editing:

Edmir Espinoza

Luis Gamarra

Design and graphical layout:

Daniel Chaparro

Edited by:

Lucas Dourojeanni

Angelit Meza

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WORDS FROM OUR PRESIDENT

Fifteen years ago, the first global mechanisms to fight climate change were being initiated, while the initial effects on isolated rural populations were becoming evident. In this context, Microsol advocated for the need to align these mechanisms with solidarity initiatives.

Contributing to improving home comfort through the installation of an improved cookstove represented the prime example of establishing the intersection between environmental and social concerns. Supporting Latin American families in reducing the use of partially non-renewable firewood would be recognized as a contribution to the shared, but differentiated, responsibility of mitigating the effects of climate change. However, this would only make sense if historically responsible countries for the highest emissions took the lead in reducing their own emissions.

In rural settings, where the kitchen serves as the only room in the house, transitioning to cleaner and more efficient cooking technologies can significantly contribute to a better way of life. Particularly because many cultures consider the hearth as the heart of the home; a space where a deep and intimate relationship with the surroundings, the community, the land, and the family is catalyzed.

It is thus a delicate, gradual transformation that has taken over a century to unfold in other parts of the world that questions the way we relate to nature, which includes not only the management of benefits, but other more fundamental aspects of existence and coexistence with other living beings. Changing habits and influencing customs are real and significant, demanding an adaptability that is already being challenged by the effects of climate change.

In this role as catalysts for discussion, these improved cookstoves can serve as a bridge between vulnerable rural communities in Latin America and other communities worldwide. They demonstrate how changes in behavior, and a mutual approach to facing shared climate challenges, can yield positive results.

The projects supported by Microsol bring to the forefront a questioning of global decisions that disproportionately affect rural areas. They represent an opportunity to discover new ways of coexistence. Put differently, these projects act as catalysts for ethical dialogue, reminding us that the fight against climate change transcends the technical and economic realms to become an ethical imperative of equity, shared responsibility, and global collaboration.

Likewise, these initiatives underscore the ongoing need to balance the actions of those historically responsible for emissions with the obligation to ensure dignified living conditions for those who are, in their daily lives, enduring the impacts of climate change. Improved cookstoves embody an effort to counteract climate inequality, and foster awareness about how individual and collective decisions ethically impact the lives of others.



Arthur Laurent
Microsol President &
Co-Founder

TABLE OF CONTENTS

1.	Presentation.....	09
2.	Prologue.....	10
3.	Microsol: Commitement, purpose and DNA.....	12
4.	The beginnings. Story of a developing dream.....	22
5.	Low carbon contributions and their impact on socially responsible investments.....	34
6.	Positive social and environmental impact.....	37
7.	Beyond borders: Regional expansion, a look towards the future.....	41
8.	Glossary.....	44



Photography by Anabel Avril



PRESENTATION



Dorothée Pie
CEO Microsol

Since its inception, Microsol aspired to be an innovative company, with social and environmental awareness, which actively contributes to the construction of a fairer, more sustainable and more conscious environmental problems, including climate change, that disproportionately affect families in the most vulnerable situation in rural communities around the world.

The challenges faced, specially, by these communities in Latin America are very diverse and generate significant gaps in their quality of life. Lack of services, precarious living conditions and limitations to access resources and opportunities that satisfy basic needs, are increased by the effects of climate change.

It is in this context that Microsol set an ambitious goal from a very modest proposal: generate sustainability by facilitating the access to carbon certification for improved cookstove projects.

Why improved cookstoves? Because it is a simple solution to a very complex problem. Through them, significant improvements are achieved directly on the health of families, the time and resources spent in the preparation of their food, and the pressure is reduced on other forest resources. Indirectly, this small investment promotes equity, sustainable development and resilience in the face of social and environmental challenges.

These results, however, are not an exclusive achievement of Microsol. Is a bet of a group of private actors and civil society, as well as the same communities in Peru, Mexico, Guatemala and Honduras, through our Qori Q'oncha and Utsil Naj programs, which constance and commitment create sustainability and well-being at the local level, while contributing to the fight against climate change.

It is important to recognize the value local communities, beneficiaries and users add to this proposal and, at the same time, acknowledge their role as a fundamental piece of this virtuous cycle. In addition, it is essential to also recognize the valuable contribution of our local partners and operators, as their commitment and effort is a key element providing the necessary support to communities, so that carbon projects really generate well-being. We will also have to be thankful for our low-carbon customers. It is through their support and investment in our proposal that we are able to reinvest back in the communities.

This 15-year journey for Microsol has been full of ups and downs, challenges and opportunities that have led us to reflect on our role as a company in this virtuous chain, and about our obligation to our communities and partners. In addition, this process has helped us develop new and innovative ways of working with communities and clients, so that we can better respond to their needs and concerns.

Thus, today we are opening the way internationally with the implementation of the Tuki Wasi Program for International Transfer of Mitigation results (ITMO) in the framework of Article 6 of the Paris Agreement; one of the first internationally.

We celebrate these 15 years with optimism in our future, and we are ready to continue innovating, for our partners and clients, as we redouble our commitment to contribute to the well-being of vulnerable communities worldwide.

PROLOGUE

This institutional memoir marks an important milestone in our trajectory as a social enterprise of French origin. It commemorates 15 years of dedication to sustainable projects addressing the challenges of climate change, which are reflected in the impact achieved in the reduction of carbon emissions, and development in rural areas through the certification linked to improved cookstoves initiatives in communities from Latin America. From the start, we proposed ourselves the challenge to improve people's quality of life and preserve the planet, and today we continue on the same course.

With this objective in mind, and during all this time, we have consolidated our position as a benchmark in the sector, by closing the gaps related to poverty, facilitating access to green energy solutions. Our commitment to carbon certification is fundamental, demonstrating the feasibility of innovative and efficient projects that generate a significant impact in the reduction of the carbon footprint, the protection of ecosystems, and the mitigation of environmental impact.

Our work is focused in Latin America, by collaborating closely with rural communities, understanding their needs and developing creative responses to adapt to each reality. Our comprehensive vision includes, in addition to the promotion of programs and projects for improved cookstoves, the implementation of initiatives that adopt technologies based on sustainable energy, as well as training and community empowerment. This way, we reflect how much we value the importance of providing tools and knowledge to build a sustainable future as a team.

This document is a recognition to all those who have been part of our journey. We sincerely thank our collaborators, strategic partners and, above all, to the organizations and communities that have supported us from the beginning, and continue to do so.

We hope that this memoir inspires and motivates you to join us in the building of a better world for future generations.





Photography by Anabel Avril



Fotografía Daniel Chaparro

MICROSOL: COMMITMENT, PURPOSE, AND DNA

VULNERABLE POPULATIONS IN LATIN AMERICA

Rural populations in Latin America have faced socio-economic and environmental challenges for decades, resulting in significant gaps in their quality of life. These communities lack access to services, live in precarious conditions, and have limitations in resources and opportunities to meet their most basic needs.

Currently, the region is affected by significant environmental impacts such as deforestation, air pollution, and depletion of natural resources. These issues directly impact the health and food safety of local populations, as their well-being relies on the balance of their environment.

This concerning landscape underscores the urgency for governments, institutions, and global organizations to promote the implementation of programs and policies aimed at addressing the specific needs of these vulnerable areas. In this scenario, it is crucial to encourage the use of sustainable technologies and practices that minimize environmental impact and the harm to families' health.

Fortunately, evidence shows that investing in the well-being and empowerment of communities can lead to significant improvements in equity, sustainable development, and resilience in the face of current environmental and social challenges.

It is paradoxical that these populations, who are vulnerable to climate change and the degradation of natural resources, are also called upon to play an active role in strengthening the sustainability of the planet.



Photography by Rhay Simbaña

1 World Bank. Latin America and the Caribbean: overview. 2023.

2 United Nations. The eight obstacles to sustainable development in Latin America.

3 CEPAL. Strengthen resilience. Strengthen the resilience of Latin American and Caribbean societies, key to the implementation of the 2030 Agenda. 2018.



OUR VISION: A COMPANY WITH SOCIAL IMPACT

Recognizing that rural communities in Latin America are confronted with the combination of climate change and social inequality, an alternative emerged 15 years ago that sought to chart a different path. From the outset, as Microsol, we accepted the challenge of mitigating the socio-environmental challenges affecting these communities through the implementation of practices based on the use of renewable energy sources, and effective sustainable strategies. In doing so, we actively engage in shaping a future characterized by equity, justice, and, most importantly, sustainability.⁴

To achieve this purpose, as a private and socially oriented company, we maintain a balance between our responsibilities and financial objectives, viewing our economic independence as an essential component of our organizational structure.

Through this approach, and in alignment with our mission, Microsol can now lead high-impact socio-environmental projects, ensuring their long-term viability and positive influence on society.

OUR PURPOSE: THE DNA OF MICROSOL

Our DNA can be summarized in a single phrase: to provide innovative solutions and services that promote the reduction of greenhouse gas emissions, encouraging environmental preservation and enhancing people's well-being. Focused on communities facing the impacts of climate change, we approach this goal through three fundamental pillars:

- **Facilitate access to low-cost technological alternatives.**
- **Mitigate the adverse effects of climate change.**
- **Alleviate the environmental impact in vulnerable areas.**

With the aim of achieving this goal, we drive the commercialization of low carbon contributions, forging connections and offering guidance to companies and organizations worldwide for the validation of sustainable projects. In other words, beyond merely reducing emissions through the implementation of eco-friendly technologies, we seek to produce tangible benefits for local communities.

⁴ Interview with Dorothée Pie, CEO of Microsol.



Proyecto
**Tuki
Wasi**

El 1º proyecto de cocinas mejoradas en el Perú enmarcado en el artículo 6 del Acuerdo de París.

tukiwasi.org/es | info@tukiwasi.org
mprieto@sosbosques.org





INSTITUTIONAL VALUES

To stay on course, we uphold six institutional principles that guide our daily actions and shape the relationships we build. Rooted in key concepts such as ethics, responsibility, and sustainable development, our unwavering values are:

Social and Environmental Awareness: We recognize the significance of social and environmental impact in all its dimensions. We strive to discover solutions that benefit both communities and their surroundings, prioritizing common well-being over individual or monetary interests.

Respect: We value and respect all individuals, cultures, and communities we engage with. Within our organization, we foster an inclusive work environment where diversity is cherished, and any form of discrimination or exploitation is prohibited.

Commitment: We hold ourselves accountable for fulfilling our goals and obligations with seriousness and dedication. The organization is prepared to overcome obstacles and collaborate with partners and communities to foster enduring positive change.

Responsibility: We understand the importance of acting responsibly in every one of our actions. We commit to transparency and accountability, ensuring that our behavior aligns with the principles and values we promote.

Rigor: We value quality and excellence in our projects. We maintain high standards of professionalism, employing rigorous methods of measurement and evaluation to ensure the beneficial and sustainable impact of the initiatives we undertake.

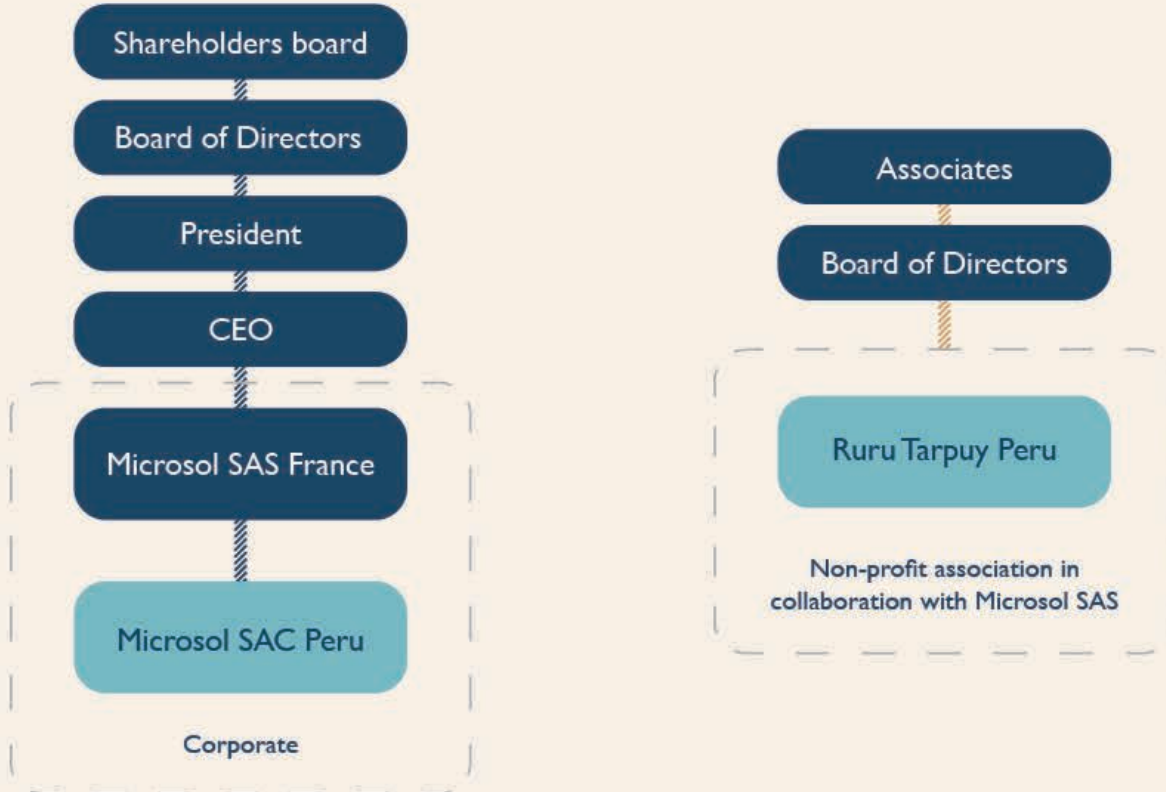
Personal Integrity: We behave with integrity and honesty in our interactions. We take responsibility for adhering to all applicable regulations and laws, valuing the trust placed in us by the partners and communities we engage with.⁵

⁵ Interview with Dorothée Pie, CEO of Microsol.



Photography by Anabel Avril

GOVERNANCE





VALUE PROPOSAL: COMPETITIVE DIFFERENTIATION

We continuously strive to create unique value in our industry.

To achieve this, we rely on three pillars that set us apart and provide a significant competitive advantage:

Market Experience: Being present since 2007, we have built an extensive track record characterized by a deep understanding of the industry and a robust capacity to adapt to the challenges and circumstances of a changing world. Despite the various crises that have affected the segment, we maintain our position with a resilient and persevering attitude.

Cutting-Edge and Innovation: Not only have we implemented the first project under Article 6 of the Paris Agreement, our Qori Q'oncha project was also the first to be certified by the Gold Standard for the Global Goals. This pioneering position has made us leaders in implementing sustainable solutions, showcasing our ability to anticipate and capitalize on emerging opportunities.

Quality and Tangibility: We stand out for the quality of our projects and their focus on achieving tangible social and environmental impacts. In our 15-year history, we have maintained a vision based on monitoring and measuring key indicators, ensuring measurable and traceable impacts.

We are agents of positive change. Our anthropological approach, and its adaptation to the specific needs of communities, are key elements of how we execute our projects. Through training and awareness-building regarding the proper use of improved cookstoves, we enhance the adoption of clean technologies, thereby ensuring sustainable impacts.⁶



Photography by Rhay Simbaña

⁶ Interview with Dorothée Pie, CEO of Microsol, Romain Laurent, Member of the Board of Directors of Microsol and Augusto Mulanovich, former Technical Director of Microsol.

FUNDING SOURCES AND REINVESTMENT

To guarantee our financial independence we rely on three sources:

1. Funding through the international voluntary carbon market:

- We actively participate in the voluntary carbon market, where low-carbon contributions generated by various projects are traded.
- We provide technical assistance to different organizations throughout the design and implementation of energy efficiency ventures. This enables them to certify greenhouse gas emission reductions and trade low-carbon contributions among buyers seeking to reduce their own emissions, allowing us to earn a commission for our consultancy services.
- Due to this source of funding, we have the financial sustainability needed to continue promoting climate change mitigation and the transition to a low-carbon economy

2. Results-based financing:

- Projects carried out under Article 6 of the Paris Agreement refer to a financing mechanism that aims to incentivize the reduction of greenhouse gas emissions and promote the environmental sustainability of countries
- Article 6 establishes provisions for cooperation between countries in the implementation of climate actions and the exchange of mitigation emission reduction units that contribute to fulfilling their Nationally Determined Contributions (NDCs).
- These projects are developed in collaboration with other entities such as non-governmental organizations and companies, and are based on achieving tangible outcomes in terms of emissions reduction.

- Financing is directly linked to the achievement of specific milestones established in the initiatives. Once the goals are reached, carbon emissions reductions called “mitigation results⁷” are generated, which will be transferred to other countries, contributing to fulfilling their environmental commitments within their NDCs.

- This results-based financing approach provides an additional source of income, enabling us to propel initiatives that will continue to contribute to climate change mitigation.

- By accessing income based on achieved milestones and generating mitigation results, Microsol can reinvest these funds in expanding its activities and implementing new sustainable solutions.

- This financing mechanism is relatively new, as it was introduced in the country in 2021. However, it represents an opportunity to diversify funding sources and strengthen financial stability, while concurrently working towards achieving environmental and social sustainability goals.

3. Consulting services in carbon certification and access to clean energy:

- We offer specialized consultancy services in carbon certification and access to clean energy.
- Through these consultations, we provide guidance to other organizations and companies in the implementation of sustainable projects, to obtain certifications related to emissions reduction and the adoption of green technologies.
- The fees and contracts from these consultancies serve as an additional source of income.

⁷ A mitigation result is equivalent to 1 ton CO₂e.







REINVESTMENT POLICY

As part of our commitment to sustainability, we reinvest our profits into the development of new projects. This strategy ensures that financial resources are used effectively and in line with the set values and goals, thereby avoiding dependence on external economic powers or high levels of indebtedness. This approach guarantees autonomy to lead high-impact interventions with freedom.

Areas in which we focus reinvestment:

Development of sustainable technologies: We assign part of our profits to the research and development of new and innovative initiatives that foster energy efficiency and emission reductions. We strive to continuously improve our solutions and adapt them to the specific needs of the communities where we are present.

Expansion of coverage: We aim to expand our cover and reach more populations facing social and environmental challenges. The reinvestment of profits allows us to carry out coverage expansion programs, providing access to improved cookstoves technology to communities that have not yet benefited.

The reinvestment of profits guarantees that Microsol continues to grow and generate a long-term positive impact, reaffirming our commitment to use resources responsibly, always prioritizing environmental sustainability, people's well-being and the promotion of innovative solutions.

As part of this strategy, in 2022 we made our first investment in Honduras, allocating 100% of the funds to the installation of 1,000 improved cookstoves. This investment was carried out without the participation of external partners, which demonstrates Microsol's commitment and confidence in its own potential, and its ability to reinvest in sustainability and expansion activities.

“Our initiatives are adapted to the needs of the communities and promote training spaces and awareness on the good use of improved cookstoves. And in that sense, strengthen the adoption of new technology on one hand, and also the environmental and social impact on the other, which will be more durable”.

Dorothee Pie,
CEO Microsol

THE BEGINNINGS

STORY OF A DEVELOPING DREAM

Our adventure began in 2007, when an exhaustive socio-anthropological study was carried out in vulnerable communities of the Peruvian Andes, located at more than 2,000 meters above sea level.

The results of the study were conclusive and revealed that many of the observed rural populations depended on traditional open hearths that use solid fuels such as firewood, charcoal, and other types of biomass to cook their food.

This ancient cooking practice generates smoke and toxic emissions. In addition, these cookstoves are lit in small and precarious houses, which bring together children, adults and the elderly in the same space, which represents a negative impact on the environment, but above all, on the health of thousands of people.

Aware of the need to find a sustainable solution, our founders proposed a way to finance the sustainability of improved cookstove projects in these areas. It is a cooking technology that significantly reduces the amount of firewood used, carbon emissions and exposure to polluting gasses and particulate matter, improving air quality and promoting well-being among families.⁹

Although projects that sought to improve the quality of life of rural communities already existed in Peru since the 1970s, including some linked to the installation of improved cookstoves, most of these initiatives faced difficulties due to lack of budget in the long-term. Once the funds ran out, the programs ceased, unless there was a similar intervention that could keep them going.

In this context, Microsol identified several improved cookstove projects carried out by various institutions and devised a sustainable and innovative solution. This proposal implied placing the projects on the voluntary carbon market, and using the credits generated by the emission reductions to obtain continuous funding.¹⁰

To achieve it, a multi-stage process was carried out:

- **Identified a potential for sustainability in carbon markets.**
- **Made a sustainability proposal for the projects.**
- **Based on this, with the executed projects, created a program (QQ first and UN later).**
- **Enrolled the programs in Gold Standard and from that moment on, it has been generating benefits.**

Open cookstoves that use solid fuels, such as firewood or coal, receive various names in Latin America, including *fogones tradicionales*, *cocinas tradicionales*, *chullpas*, *tres piedras*, *estufa de leña*, among others.

To validate the results of these programs, the Qori Q'oncha project was designed, which helped us confirm the benefits and viability of improved cookstoves under this scheme. Based on the results, we adopted carbon market-based financing as a strategy to replicate and expand this mechanism.

⁹ Microsol website.

¹⁰ Interview with Fernando Acosta, ITMO Program Coordinator of Microsol.





Photography by Anabel Avril

QORI Q'ONCHA: TESTING AND CONFIRMING THE MODEL

In 2008, the Qori Q'oncha ('golden kitchens' in Quechua) program was born, becoming one of the first improved cookstoves initiatives introduced into the voluntary carbon market worldwide. Two years later, in 2010, the carbon reduction actions promoted by Microsol were certified by the Gold Standard, a recognized entity in the field.

Through this certification process, the purchasing institutions paid for the low-carbon contributions, allowing them to be reinvested into the projects for their continuation, execution, or expansion.

This form of carbon-based financing has allowed us to maintain our operations, while attaining our financial autonomy.



Impacts since the beginning of the program:

- More than **600,000** people benefited.
- **2,600,000** tons of greenhouse gasses avoided.
- **7** Certified Sustainable Development Goals:¹¹



¹¹ Qori Q'oncha program sheet.



UTSIL NAJ: EVOLUTION AND EXPANSION

After validating the efficiency of the program and confirming the feasibility of our model, we identified a similar need in rural communities in Mexico and Central America. Thus, in 2012, the company shared its experience and knowledge, implementing a second program, called Utsil Naj, in Mexico, Guatemala and Honduras.

Through this regional expansion, Microsol extended its impact and contributed to improving living conditions in other regions of Latin America.



Impacts since the beginning of the program:

- More than 110,000 people benefited.
- 209,000 tons of greenhouse gasses avoided.
- 7 Certified Sustainable Development Goals:¹²



¹² Utsil Naj's Guatemala, Mexico and Honduras program sheet.



TUKI WASI: ONE STEP AHEAD IN OUR VISION

The Paris Agreement, signed at COP21, entered into force in 2020. The agreement establishes the goal of keeping the increase in global temperature below 2 degrees Celsius, above pre-industrial levels, and continuing efforts to further limit the increase in temperature to 1.5 degrees Celsius. Among other measures, Article 6 of this agreement allows for the development of voluntary cooperative approaches to the application of its NDCs. This, with the aim of achieving greater ambition in its mitigation measures, which implies the use of International Transfer of Mitigation Results (ITMO), to comply with the commitments assumed by the countries participating in the agreement.

At the UN Climate Conference in Glasgow in 2021 (COP26), the regulations for the implementation of ITMO among participating countries were approved. That same year we developed a program under the Article 6 of the Paris Agreement, for the generation of ITMOs, between Peru and Switzerland through the implementation of improved cookstoves in rural communities in the Peruvian highlands. It is along these lines that we promoted the Tuki Wasi ("pleasant house" in Quechua) Program, which represents a significant milestone, becoming one of the first ITMO programs to implement improved cookstoves worldwide.



The Tuki Wasi Program hopes to install between 40,000 and 60,000 improved cookstoves nationwide, which will benefit around 200,000 to 300,000 people in vulnerable areas of the country. Through these improved cookstoves, the aim is to reduce between 625,000 and one million tCO₂ of greenhouse gas (GHG) emissions by the year 2030.¹³

¹³ Tuki Wasi Program materials.

GOLD STANDARD CERTIFICATION: ASSURANCE OF QUALITY AND PRESTIGE

The emission reduction certification is a fundamental factor in its commercialization and in the demonstration of the commitment to sustainable development. Along these lines, Gold Standard for the Global Goals (GS4GG) is a certifier that has become renowned in the field of reducing emissions and promoting sustainable projects. Its focus is on the implementation of improved technologies and the certification of projects that contribute significantly to the mitigation of climate change. Although the GS4GG has recently started to certify Nature Based Projects (NBS), its main focus is in certifying clean energy initiatives and access to renewable energy sources, such as improved cookstoves, solar panels, biodigesters and wind turbines.

The GS4GG certification not only guarantees the reduction of carbon emissions, but also ensures the project's contribution to the Sustainable Development Goals (SDG). These are 17 goals established by the United Nations to address global challenges, such as the eradication of poverty, the promotion of gender equality, the protection of the environment, among others. The Gold Standard has incorporated these SDGs into its certification methodologies, allowing projects to measure and demonstrate their impact in key areas such as health, well-being and equity.

This is precisely the guarantee that these reductions are aligned with the SDGs and the highest sustainability standards, which makes many clients choose to access these Gold Standard certified projects. Thus, this certification not only adds value and prestige, but also demonstrates a genuine effort to reduce emissions and promote sustainable development. Regardless, the quality of Gold Standard certified emission reductions is backed by a rigorous audit and verification process. Before being certified, projects must meet a series of eligibility criteria. In addition, Gold Standard certified low carbon contributions have a lower risk rate compared to other existing certifications and programs. This is due to the traceability of the certification process, which involves independent analysis and regular monitoring to ensure compliance with established standards.

In this way, investors and buyers of low carbon reductions can trust the quality and support of the same for being certified by the Gold Standard.



14 Carbon Mechanisms Review, System Change: Transformative design of Article 6 programmes for net zero emissions by 2050, 2020

15 Interview with Augusto Mulanovich, former Technical Director of Microsol.

Photography by Ooshot



Photography by Ooshot

THE CREDIBILITY OF GOLD STANDARD AS A CERTIFIER

Gold Standard's credibility is based on its relationship with the United Nations and the support of highly trained scientists and technicians in the field of climate change and sustainable development. The United Nations Framework Convention on Climate Change (UNFCCC) established the initial rules and guidelines for the regulated carbon market, known as the Clean Development Mechanism (CDM). These rules were developed by experts and scientists hired by the United Nations, who later contributed to the creation of the Gold Standard.



Thus, after the emergence of the voluntary carbon market, the Gold Standard was based on the rules established by the United Nations and proposed additional certifications based on these rules. In this way, its reputation as a certifying entity has been consolidated over time.¹⁶

MICROSOL AND ITS RELATIONSHIP WITH GOLD STANDARD

We were the pioneers in obtaining Gold Standard certification for the Qori Q'oncha program in Peru, considered one of the first Gold Standard certified improved cookstove programs in the world. A distinction that highlights Microsol's leadership in carbon management and its focus on the implementation of innovative and efficient technologies in local communities.¹⁷

For more than a decade, the association with Gold Standard has strengthened Microsol's position as a leader in the implementation of sustainable projects with low impact. This certification has given us international recognition and access to a global network of experts and partners who share our vision of promoting sustainable solutions.

Our alliance with Gold Standard has also given us a competitive edge. Investors and buyers of emission reductions recognize the quality and prestige of the projects certified by them, which generates greater interest in Microsol's initiatives. In addition, the Gold Standard certification offers the ability to verifiably demonstrate the positive environmental impact, which has meant a fundamental contribution to attract investment and establish strategic alliances with organizations committed to sustainability and climate change mitigation.

¹⁶ Interview with Augusto Mulanovich, former Technical Director of Microsol.

¹⁷ Interviews with representatives of Fraïcheur de Paris, Double Sens and Ecocert Group.

MICROSOL: MANAGER AND IMPLEMENTER OF CARBON PROJECTS IN IMPROVED COOKSTOVE PROGRAMS

For thousands of years, human beings have used solid fuels such as firewood, charcoal, dung, among others, to prepare their food and provide heat for the home. The technology used has always been an open fire. Unfortunately, these cooking methods are inefficient, and harmful to health and the environment.

The smoke generated by open cookstoves that use solid fuels contains tiny particles that affect the person, causing eye and respiratory problems in the long term. In addition, the emissions from these cookstoves remain trapped inside homes, affecting air quality and creating an unhealthy environment for families.

Given this situation, improved cookstoves are presented as a suitable alternative to replace traditional cookstoves, improving their efficiency and reducing the damage associated with the smoke generated by the combustion of firewood.

It is an optimized version of the traditional wood-burning cookstoves used in rural areas, which include:

- **Efficient combustion chamber.**
- **Thermal isolation.**
- **Ventilation grill.**
- **Perfected design to minimize smoke emissions.**
- **Chimney.**

Improved cookstoves not only reduce the amount of greenhouse gasses in the environment, but also improve people's quality of life by reducing exposure to smoke and making food preparation easier.

On the other hand, improved cookstoves also offer advantages in terms of firewood consumption. Being very inefficient, traditional cookstoves require large amounts of this resource, which implies a significant effort to collect it, especially in rural areas where access to firewood may require hours of walking.

In contrast, improved cookstoves, being more efficient, allow for a considerable reduction in firewood consumption, reducing the workload associated with collection, and reducing deforestation and pressure on natural resources.¹⁸

Suitability and opportunity

The reason why improved cookstoves, and their installation in rural areas of Latin America, constitute one of the most solid strategies to improve the quality of life of these communities is based on multiple factors.

Firstly, firewood is one of the most widely available fuel sources in rural areas and the one with the greatest economic accessibility compared to other more modern energy sources such as gas or electricity. For many low-income families, access to other energy sources can be prohibitive and burdensome.

In addition, improved cookstoves are presented as an appropriate technology adapted to the needs and realities of rural communities. Unlike other more modern technologies, which could require drastic changes in customs and ways of life, in addition to the capacity or availability of access to them (gas suppliers, access to electricity, price of technology, etc.), improved cookstoves offer a solution that integrates organically into the daily dynamics of rural communities in the region.

Thus, improved cookstoves represent a first technological step that satisfies an immediate need, without imposing radical transformations in family routines.¹⁹



Photography by Daniel Chaparro

¹⁸ Microsol Brochure.

¹⁹ Microsol Brochure, Interview with Fernando Acosta, ITMO Program Coordinator of Microsol, and Augusto Mulanovich, former Technical Director of Microsol.

BENEFITS OF IMPROVED COOKSTOVES

1 HEALTH



Avoid contamination inside homes.



Prevents diseases and respiratory problems.



Less risk of burns.



Avoid bad position when cooking and prevents back pain.

2 SOCIAL



They require less time to prepare foods.



Eases domestic chores and improves hygiene around the kitchen.



Allows for more free time to be spent in economic or educational activities.

4 ECONOMIC



Reduces the use of firewood.



It allows families to have more time to devote to other productive activities.



Reduce expenses on medicines and visits to the doctor.

5 SAFETY



Avoids accidents due to overturning of pots by having stable bases.

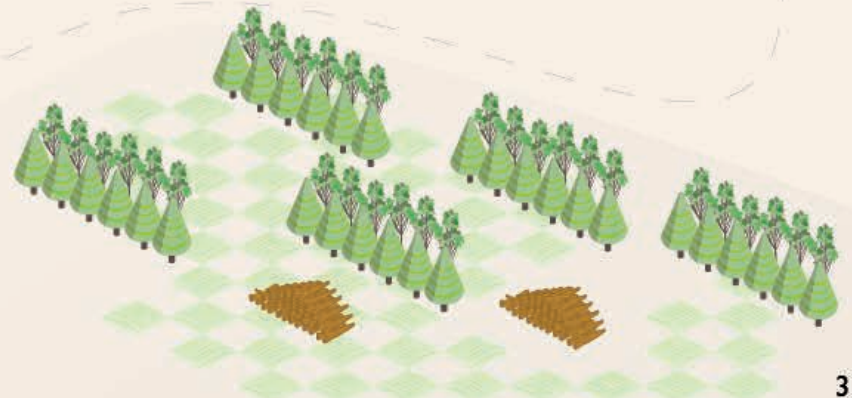
Avoids burns caused by the open fire.

Avoids the possibility of fires, in case of mishandling of firewood and embers.

3 ENVIRONMENT

By using less firewood, the emission of greenhouse gasses is reduced.

It helps conserve forests and favors the conservation of biodiversity.



MANAGEMENT AND IMPLEMENTATION OF IMPROVED COOKSTOVES PROGRAMS

Beyond the obvious benefits of improved cookstoves, the decision to opt for this technology as a basis for the implementation of carbon projects was made for various reasons:

- The Latin American context was propitious for projects of this nature since there were already initiatives for improved cookstoves installed in rural areas of the region. We quickly realized that financing through the sale of low carbon contributions could provide the necessary resources to monitor the program for an extended period, even beyond 15 years.
- Unlike emission sequestration projects, such as those related to reforestation or forest protection, improved cookstoves generate precise and measurable metrics. While reforestation projects can cover vast areas of land and have significant impact, they also present accuracy challenges and long-term risks.
- Improved cookstoves offer a direct and quantifiable approach, which allows us to accurately measure the reduction in firewood consumption through scales and records. This rigorous and tangible measurement makes it possible to generate carbon credits in a reliable and transparent manner.

After analyzing these variables and committing to this high-impact technology, over the last 15 years we have played an integral role in the expansion and sustainability of these projects. A task that we have developed in a sustained manner and in close collaboration with local communities and project developers, whether they are NGOs, regional governments or other institutions.²⁰



Photography by Anabel Avril

²⁰ Interview with Fernando Acosta, ITMO Program Coordinator of Microsol, and Augusto Mulanovich, former Technical Director of Microsol.

MONITORING, REPORTING AND VERIFICATION

Obtaining a carbon emission reduction certification is usually a complex process, since it requires each project to generate solid evidence of the reductions generated in a certain period. In response to these rigorous requirements, Microsol's work accompanying improved cookstove projects has a strong focus on monitoring, reporting and verification.

Thus, the commercialization of low-carbon contributions is only the final step in a long process that involves various resources, and a team of technical professionals who, from the field or offices, analyze in detail all the links of the program.

Phases for the analysis of the initiatives we lead:

1. **Requirement analysis.** The first step in the process involves the preparation of an exhaustive analysis of the requirements and eligibility criteria of the projects. From there, advice is provided on the selection of the most appropriate implementation areas and support is provided in the search for initial financing, if necessary.
2. **Monitoring and follow-up.** During implementation, we oversee and monitor the progress of projects, ensuring that the standards set by Gold Standard certification are met. In addition, we continuously monitor the consumption of firewood, verifying the proper use of the stoves by the beneficiary families and collecting field data to carry out the calculations in the certification process.
3. **Data collection and calculation of reductions.** After the selection of the projects and the implementation of the improved cookstoves, the monitoring and gathering of field data is carried out. Once this information is obtained, we perform new calculations using the Gold Standard methodology to determine the emissions reduction achieved. We also measure the contribution of projects to the Sustainable Development Goals.
4. **Emission reduction certification.** Once the emission reduction has been determined, we begin the certification process. For this, we collect and prepare all the necessary documentation, such as monitoring reports, firewood consumption records, field data and other relevant information. We work closely with independent validation and verification bodies under strict quality standards.
5. **Sale of low carbon contributions.** After being verified, the emission reductions generated by the improved cookstove projects can be sold on the market. It is here, where Microsol oversees looking for buyers, who can be companies, organizations or individuals interested in contributing, offsetting, or reducing their own carbon emissions. In this way, the sale of low carbon contributions provides the necessary income to finance the implementation and continuous monitoring of the improved cookstoves projects in the long term.



In addition to the implementation and certification of improved cookstove projects, we play an important role in awareness raising and education on the use of clean and efficient cookstoves. We work hand in hand with local project developers, who promote knowledge and the adoption of improved cookstoves within the beneficiary communities, providing them with training on their proper use as well as associated benefits in terms of health, economy, and the environment.²¹

²¹ Interview with Fernando Acosta, ITMO Program Coordinator of Microsol, and Augusto Mulanovich, former Technical Director of Microsol.

LOW CARBON CONTRIBUTIONS AND THEIR IMPACT ON SOCIALLY RESPONSIBLE INVESTMENT

CARBON MARKET: WHAT IS IT AND HOW DOES IT WORK?

The carbon market emerged in 1997 as an innovative tool to address the challenge of climate change and promote the reduction of GHG emissions. It was conceived during the Kyoto Protocol, an agreement that was born in Berlin during the first Conference of the Parties, in 1995, and was signed by 37 countries. There, binding commitments were established to reduce greenhouse gas emissions in industrialized countries.

The fundamental concept behind the carbon market is to establish an economic value for the release of greenhouse gasses. Through this approach, we sought to promote the adoption of sustainable practices and encourage organizations to reduce their emissions. The carbon market is based on the principle that companies and various entities can buy and sell carbon emission rights, known as carbon credits.²²



Photography by Ooshot

Compliance market

- Buyers motivated by mandatory standards: they have a cap on CO₂ emissions.
- The certification process for projects and the issuance of carbon bonds supervised by the United Nations.

Voluntary Market

- Buyers motivated by their socio-environmental sensitivity outside of any mandatory framework.
- Project certification process and issuance of carbon credits supervised by independent quality standards.

²² PNUD. ¿Qué son los mercados de carbono y por qué son importantes?. 2022



Photography by Daniel Chaparro

HOW DOES THE CARBON MARKET WORK?

Low carbon projects

Microsol focuses on financing and executing projects that generate verifiable reductions of carbon emissions. These projects can be developed in different sectors, such as renewable energy, energy efficiency and sustainable forest management.

When a reduction of emissions is generated, the contributions that represent one ton of CO₂ equivalent avoided are emitted. Microsol through, the commercialization of these, facilitate companies or individuals to offset their own emissions. The proceeds generated are reinvested in new initiatives or in maintaining current programmes

Latin America, including Peru, plays an important role for low carbon projects. These are countries that have a wide diversity of ecosystems, including tropical forests and protected marine areas, with high potential for emission reduction projects.

Along this line, the participation of these countries in the carbon market provides opportunities to attract investment, promote sustainability and contribute to the mitigation of climate change at the regional level. In addition, international cooperation, and the exchange of experiences in the implementation of projects to reduce CO₂ emissions are promoted.



Photography by Alvaro Tassano



A VIRTUOUS MARKET

Beyond its ability to promote projects that mitigate the effects of climate change, the market for low carbon contributions generates positive dynamics associated with improving the environment and the quality of life of populations:

- **Promotion of socially responsible investment (SRI).**
The carbon market provides opportunities for investors committed to SRI to actively participate in climate change mitigation, through the acquisition of low carbon contributions. Diverse organizations can invest in companies and initiatives that consider both financial performance and social and environmental impacts.
- **Economic benefits and business opportunities.**
By setting a price for low carbon contributions, an incentive is created for innovation and the development of cleaner technologies. In the case of the voluntary market, companies that achieve significant reductions in their emissions can generate contributions that they can, in turn, sell on the market, generating additional income and strengthening their corporate reputation.²³

Despite current challenges, the carbon market still has significant potential to play a significant role in mitigating climate change and promoting socially responsible investment. It is important to understand that the carbon market is not a substitute for concrete actions to reduce emissions, but a complementary ally that promotes efficiency and the sharing of reductions among different actors.

And although the reduction of greenhouse gasses is rewarded, not all projects have the same environmental or social impact. Sustainable forest management projects (such as the removal project), for example, can absorb the emission of large amounts of CO₂, but have a limited social impact. On the other hand, initiatives related to renewable energy and energy efficiency have a lower capacity to generate emission reductions in large quantities, but their social impact is high, and the accuracy in measuring and verifying the emissions avoided is usually more precise.²⁴

Thus, improved cookstove projects promote a technology that not only reduces carbon emissions, but also promotes significant environmental and social impacts in rural communities.

²³ COP21 Paris. What are carbon credits?

²⁴ Interview with Dorothee Pie, CEO of Microsol, and Augusto Mulanovich, former Technical Director of Microsol.

POSITIVE SOCIAL AND ENVIRONMENTAL IMPACT

QORI Q'ONCHA PROGRAMME: "GOLDEN KITCHENS" TO IMPROVE THE QUALITY OF LIFE OF COMMUNITIES IN PERU

In response to the challenges faced by thousands of communities in the Peruvian highlands and the serious effects of traditional cookstoves, the Qori Q'oncha program was created to drive the transition to improved cookstoves, thereby enhancing families' quality of life and reducing their environmental footprint.

Since its inception in 2008, Qori Q'oncha has benefited around 600,000 people in Peru. It's estimated that over 2.6 million tons of CO₂ emissions have been avoided since then. These achievements align with several Sustainable Development Goals (SDGs), including those related to poverty eradication, as well as health, education, access to clean energy, decent work, and climate action.

In 2010, Qori Q'oncha gained the distinction of being the first improved cooking program certified by the prestigious Gold Standard. This recognition values the meticulous evaluation of its positive impacts and contributions towards achieving the UN-established SDGs.

Qori Q'oncha doesn't solely focus on implementing improved cookstoves; it adapts to the specific needs of local communities. Existing public policies are analyzed, and areas where the program can have the greatest impact are identified. More than a decade after the installation of the first stove, Qori Q'oncha continues to generate significant impact in many rural communities, making it essential to ensure that this impact is sustained and strengthened in the future.²⁵

²⁵ Qori Q'oncha program sheet.



UTSIL NAJ PROGRAMME: IMPROVED COOKSTOVES AND RESILIENCE AGAINST CLIMATE CHANGE IN CENTRAL AMERICA

Microsol's Utsil Naj programme aims to utilize clean cooking technology to assist families in Mexico, Honduras, and Guatemala in preparing their traditional meals in a healthy and sustainable manner.

While the programme follows a general methodology applied to projects implemented in these three countries, each project has its own unique characteristics:

UTSIL NAJ – Mexico

The Utsil Naj project implemented in Mexico aims to address the challenges posed by climate change and the use of traditional biomass cookstoves in rural communities. These communities primarily rely on agriculture as a source of income, and their livelihoods have been severely impacted by extreme weather events that harm their crops and increase their economic and social vulnerability.

The project in numbers:



UTSIL NAJ – Guatemala

The Utsil Naj project was also implemented in Guatemala, where populations are confronted with adverse climatic conditions, recurrent droughts, and soil degradation.

The project in numbers:



UTSIL NAJ – Honduras

In Honduras, the Utsil Naj project confronts the challenges of climate change and the use of open biomass cookstoves in the Dry Corridor region. This region has witnessed an escalation in natural disasters due to the climate crisis, posing a threat to the security and livelihoods of agricultural communities dependent on their crops.

The project in numbers:



Local jobs have been created, and communities' capacity to address the challenges of climate change has been strengthened.²⁸

Through the promotion of improved cookstoves, the Utsil Naj programme has succeeded in reducing carbon emissions, enhancing family health, and contributing to environmental conservation in Mexico, Honduras, and Guatemala. Moreover, its focus on community empowerment and the creation of local jobs promotes sustainable development in the region.

²⁶ Project sheet UTSIL NAJ - Mexico.

²⁷ Project sheet UTSIL NAJ - Honduras.

²⁸ Project sheet UTSIL NAJ - Guatemala.



Photography by Fernando Acosta

TUKI WASI PROGRAMME: FIRST IMPROVED COOKSTOVES ITMO PROJECT

The Tuki Wasi program is the first improved cookstove project in Peru to be executed under the International Transfers of Mitigation Outcomes (ITMO) mechanism, framed within Article 6 of the Paris Agreement. The project represents a collaboration between Peru and Switzerland to promote the implementation of low greenhouse gas emission technologies and the transfer of emission reductions between the two countries within the scope of their Nationally Determined Contributions (NDCs).

The primary objective of Tuki Wasi is to promote the use of improved cookstoves as a replacement for traditional wood-burning cookstoves, aimed at reducing global emissions and enhancing the well-being of rural communities in Peru.

The project unfolds in several phases:

- 1. Identification of intervention areas.** Vulnerable populations relying on wood as their primary cooking fuel are selected.
- 2. Installation of improved cookstoves.** These improved cookstoves must meet the evaluation and certification criteria established by the National Training for the Construction Industry Service (SENCICO).
- 3. Implementation of technical and social sustainability activities.** Involves training families on the use and maintenance of the cookstoves, providing access to parts and accessories for improved cookstove maintenance, and raising awareness about the benefits of these cookstoves.

As for the project's financing, a Results-Based Financing (RBF) scheme is employed, where operators are compensated after the delivery of predefined and independently verified results. This approach ensures greater transparency and efficiency in the utilization of project resources.

Between 2019 and 2021, Microsol carried out the pilot phase of the improved cookstove ITMO project, benefiting communities in the La Libertad and Huánuco regions. A total of 989 improved cookstoves were installed, achieving various measurable outcomes such as awareness campaigns, maintenance, training, and monitoring.

Among the main challenges of the project was understanding the nuances of the ITMO concept and adapting it to a new financing model. Unlike other programs, Tuki Wasi required the engagement of operators for the installation and maintenance of improved cookstoves, necessitating new processes and procedures, including a competitive selection process to select the operators.

Furthermore, the launch of the Tuki Wasi program contributes to the implementation of national emissions reduction commitments and represents a novel financing approach for Microsol.²⁹

²⁹ Tuki Wasi materials and interviews with Elizabeth López, Microsol's Carbon Projects Technical Coordinator, Fernando Acosta, Microsol ITMO Program Coordinator, and Dorothee Pie, CEO of Microsol.

HOW DO ITMO PROJECTS WORK?

1

Country "A," that has reached its limit in reducing emissions within its borders, seeks to implement mitigation projects in another country, "B".

2

Country "A" identifies mitigation opportunities and enters into an agreement with Country "B." This agreement includes the regulatory framework for Country "A" to implement mitigation projects in Country "B".

3

After executing the mitigation project, the reduced or avoided emissions are recorded in Country "B" in order to transfer them as Mitigation Outcomes to Country "A".

4

This transfer of mitigation outcomes takes place with the participation and approval of the government of Country "B" to ensure that these projects undertake additional actions that benefit Country "B".

5

Once the transfer is approved by Country "B," these outcomes are removed from its national registry and transferred to Country "A," which includes them as part of its nationally determined contribution.

6

At the completion of the transfer, the mitigation outcomes are referred to as Internationally Transferred Mitigation Outcomes (ITMOs).

7

The involvement of Country "B" throughout the process allows for the identification of communities that are already being addressed and prevents duplication of interventions in the same areas, thereby extending benefits to more communities.

8

This means that the interventions by Country "A" occur in places where Country "B" hasn't been able to reach with its own resources, generating a positive impact that wouldn't be possible otherwise.

9

Thanks to the lessons learned from the implementation of these projects, Country "B" strengthens its technical capacity and improves its protocols to fulfill its nationally determined contributions.³⁰

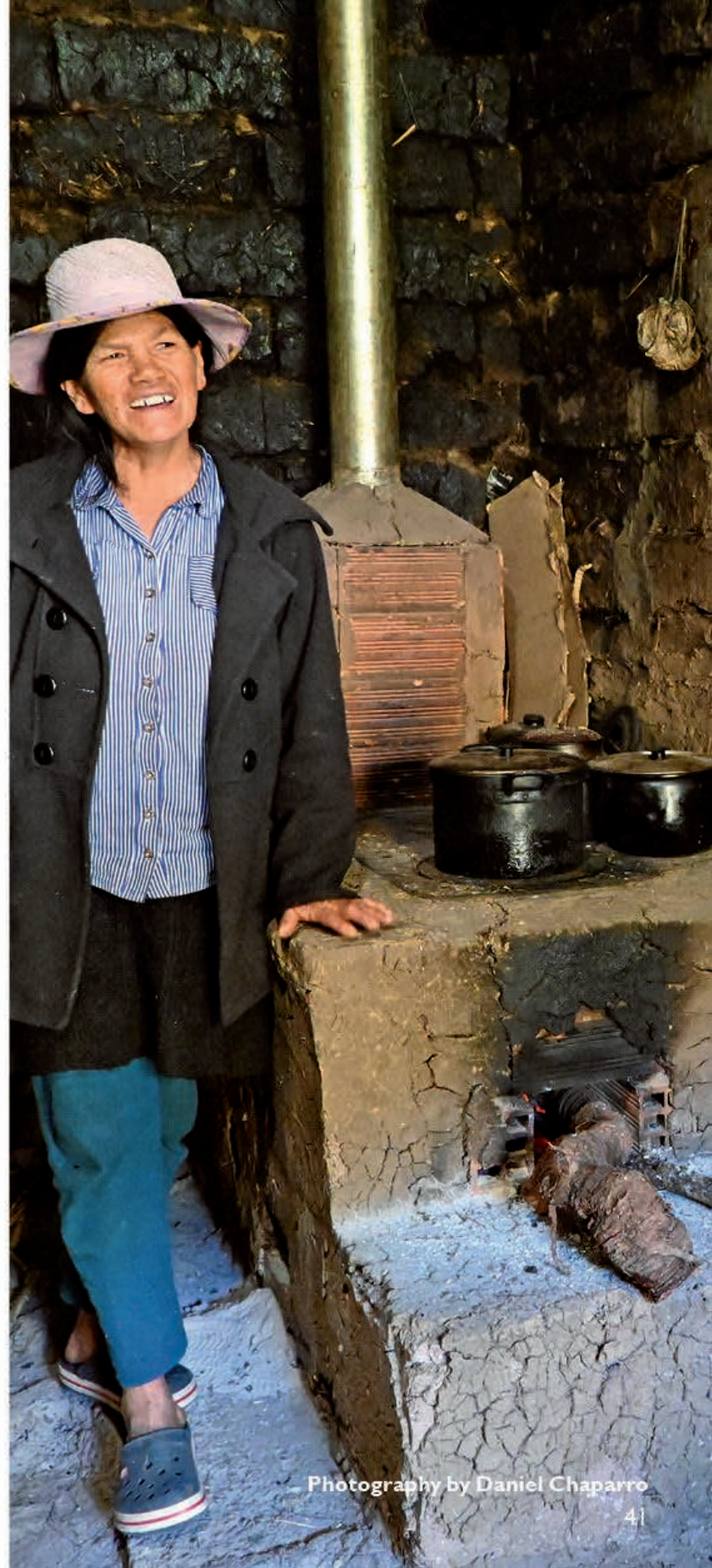
BEYOND BORDERS:

REGIONAL EXPANSION, A LOOK TOWARDS THE FUTURE

In recent years, the various initiatives, and programmes we have deployed have allowed us to envision the regional expansion of the company. Throughout this time, we have established ourselves as a leading organization in the commercialization of low-carbon contributions from sustainable projects, and the promotion of innovative and clean technologies in communities vulnerable to climate change.

In our pursuit of promoting a fairer, cleaner, and more sustainable future, we have ventured into new lines of business that enable the financial sustainability of the company, and expand the coverage of improved cookstoves and other clean energy technologies in the Latin American region. These initiatives not only showcase Microsol's innovative approach but also highlight our commitment to transcending borders.

1. **Consultancy Services.** Microsol has expanded its service by providing specialized consultancy services in carbon certification and clean energy access. These consultancies enable other organizations, and companies, to implement sustainable projects and obtain certifications related to emissions reduction and the adoption of clean technologies. Through feasibility studies and personalized guidance, we assist in understanding the necessary requirements to obtain their certifications.
2. **Expansion of the Tuki Wasi Program.** The Tuki Wasi Program, which operates under the ITMO mechanism or International Transfers of Mitigation Outcomes between countries, has been a success in its initial implementation. Our immediate goal is to complete the installation of improved cookstoves no later than early 2025 and, in the medium term, expand the program to new intervention areas, adding more cookstoves and generating more emissions reductions.



Photography by Daniel Chaparro

THE SUSTAINABLE DEVELOPMENT GOALS IN MICROSOL'S PROGRAMMES

The Sustainable Development Goals (SDGs) are a fundamental pillar in the programmes we implement, guided by a rigorous approach committed to generating positive impacts in communities and the planet.

The certified SDGs that demonstrate the impact of our programs are:

-  **1 NO POVERTY**
Ending poverty in all its forms worldwide. Improved cookstoves help vulnerable families become more self-reliant, resilient, and enhance their overall quality of life.
-  **3 GOOD HEALTH AND WELL-BEING**
Ensuring healthy lives and promoting well-being for all at all ages. The use of improved cookstoves reduces family exposure to smoke, which can cause respiratory and cardiopulmonary diseases.
-  **4 QUALITY EDUCATION**
Ensuring inclusive and equitable quality education and promote lifelong learning opportunities for all. Beneficiaries have more time to study or develop new skills when they spend less time collecting firewood or cooking. Most of them also participate in training activities about the benefits and proper use of their improved cookstoves.
-  **7 AFFORDABLE AND CLEAN ENERGY**
Ensuring access to affordable, reliable, sustainable, and modern energy for all. The installation of this technology is the first step on the energy ladder, promoting cleaner and more efficient energy access in many rural communities.
-  **8 DECENT WORK AND ECONOMIC GROWTH**
Promoting inclusive and sustainable economic growth, employment, and decent work for all. These initiatives enable the development of new projects, stimulating a local and inclusive economy and generating more local employment.
-  **13 CLIMATE ACTION**
Adopting urgent action to combat climate change and its impacts. Improved cookstove technology reduces the emission of greenhouse gasses, the major contributor to climate change.
-  **15 LIFE ON LAND**
Sustainably managing forests, combat desertification, halt and reverse land degradation, halt biodiversity loss. The use of improved cookstoves reduces firewood consumption and, consequently, pressure on firewood sources, aiding in combating deforestation and contributing to forest and biodiversity conservation.

Additionally, the Tuki Wasi Program is seeking to validate 5 more SDGs in its projects:

-  **2 ZERO HUNGER**
Ending hunger, achieving food security and improved nutrition, and promoting sustainable agriculture.
-  **5 GENDER EQUALITY**
Achieving gender equality and empowering all women and girls.
-  **11 SUSTAINABLE CITIES AND COMMUNITIES**
Making cities and human settlements inclusive, safe, resilient, and sustainable.
-  **12 RESPONSIBLE CONSUMPTION AND PRODUCTION**
Ensuring sustainable consumption and production patterns.
-  **16 PEACE, JUSTICE AND STRONG INSTITUTIONS**
Promoting peaceful and inclusive societies for sustainable development, providing access to justice for all, and building effective, accountable, and inclusive institutions at all levels.

**SUSTAINABLE
DEVELOPMENT
GOALS**

GLOBAL PROJECTION

Within our objectives, we aim to expand the service offering of certification and project management to new technologies and countries. This strategy aims to amplify Microsol's impact on the adoption of clean energy and international carbon emissions reduction.

The experience gained from the successful implementation of programs in Peru, Honduras, Mexico, and Guatemala, along with the new opportunities provided by consultancy services in carbon certification and clean energy access, will serve as a foundation for replicating and adapting solutions in different contexts and regions.

In our ongoing pursuit of innovation, we are exploring new technologies in the field of clean energy and sustainability. This will enable Microsol to remain at the forefront of sustainable solutions and maximize its impact in transitioning towards a cleaner and more prosperous future.

GLOSSARY

Article 6 of the Paris Agreement. Section of the Paris Agreement that deals with cooperation between countries for the reduction of greenhouse gas emissions and carbon trading.

Biodigesters. Anaerobic biological systems designed to break down organic matter, such as agricultural waste, food residues, and animal manure, in the absence of oxygen. Through a process of microbial fermentation, biodigesters generate biogas and biofertilizer as byproducts.

Biodiversity. The variety and variability of life on Earth, including genetic diversity, species diversity, and ecosystem diversity.

Biomass. Organic matter, such as wood or dung, used as fuel in traditional stoves.

Carbon footprint. It is a measure used to assess the direct and indirect environmental impact of an entity, activity, or product in terms of greenhouse gas (GHG) emissions. It represents the total amount of GHG emissions, such as carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and others, released into the atmosphere due to human actions. The carbon footprint is commonly expressed in metric tons of CO₂ equivalent and is an important indicator for assessing contribution to climate change.

Carbon offset initiatives. Projects or actions aimed at balancing greenhouse gas emissions by reducing equivalent emissions elsewhere or through carbon sequestration actions, such as reforestation.

Carbon project developer and implementer. An organization or entity responsible for planning, managing, and executing projects aimed at reducing carbon emissions and mitigating climate change.

Certifications. Documents that certify that a project meets certain environmental and sustainability standards.

Clean Development Mechanism (CDM). A flexibility mechanism established in the Kyoto Protocol that allows countries to invest in emission reduction projects to fulfill their targets. In return, they receive carbon credits that they can use to offset their own emissions.

Clean energy. Energy sources that generate low carbon emissions and have a lower environmental impact.

Climate change mitigation. Actions aimed at reducing greenhouse gas emissions to limit global warming.

Climate change. The process of Earth's climate varies, directly or indirectly attributed to human activity, which alters the global climate system.

Consultancy in certification and access to clean energy. Specialized advisory services in carbon certification and access to clean energy technologies.

Energy efficiency. The capacity of a technology or system to use the least amount of energy possible to perform a specific task.

Energy ladder. Progression towards the use of cleaner and more sustainable energy sources.

Energy transition. The gradual shift towards the use of renewable and sustainable energy sources instead of fossil fuels.

Environmental impact. Positive effects that Microsol's projects have on the environment, such as emissions reduction and conservation of natural resources.

Financial sustainability. The ability to maintain and finance projects in the long term without compromising future resources.

Gold Standard for the Global Goals (GS4GG). A recognized certifier that evaluates clean energy and renewable energy projects, ensuring emissions reduction and their contribution to the United Nations Sustainable Development Goals.

Governance. The system and processes of decision-making within an organization.

Greenhouse gasses (GHGs). Gaseous components present in the atmosphere that can trap heat from the sun, thus contributing to the phenomenon known as the "greenhouse effect." These gasses include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), water vapor, tropospheric ozone, and others. While the greenhouse effect is a natural and essential process for maintaining the Earth's temperature, human activity has significantly increased the concentrations of these gasses due to the burning of fossil fuels, deforestation, and other industrial activities, leading to global warming and climate change.

Improved cookstove projects. Initiatives that aim to replace traditional stoves with more efficient and cleaner cooking technologies, with the goal of reducing smoke emissions and improving people's quality of life.

Improved cookstoves. Cooking technologies that significantly reduce the consumption of solid fuels like wood or coal and carbon emissions. They improve the quality of life for communities and protect the environment.

Internationally Transferred Mitigation Outcomes (ITMO). A unit of emission reduction generated by mitigation projects that can be transferred between participating countries under the Paris Agreement.



Photography by Katherine Landauro

Low-carbon contributions. Certificates representing the reduction of one metric ton of carbon dioxide (CO₂) or its equivalent in other greenhouse gases. They are issued as incentives to reduce greenhouse gas emissions and combat climate change.

Mitigation. Actions aimed at reducing greenhouse gas emissions and countering climate change.

National Service of Training for the Construction Industry (SENCICO). A Peruvian institution with the main objective of promoting and developing technical and professional training in the construction industry in Peru.

Nature-focused projects. Initiatives aimed at addressing environmental and climate challenges through the conservation, restoration, and sustainable use of natural resources. These projects focus on protecting ecosystems, biodiversity, and environmental services to contribute to climate change mitigation and adaptation to its effects.

Open fire. A traditional cooking method where the fire is placed directly on the ground without proper ventilation, leading to smoke and harmful emissions.

Positive impact. Favorable and beneficial effects generated by Microsol's programs on communities and the environment.

Qori Q'oncha (QQ). An expression derived from the Quechua language, meaning "Golden Stoves" in Spanish.

Reduction of greenhouse gas emissions. Decreasing the release of gases that contribute to the greenhouse effect, such as CO₂, which helps mitigate climate change.

Reforestation. The process of planting trees and restoring forests to increase the amount of carbon absorbed from the air.

Resilience. The ability of communities to adapt to and recover from challenges, such as climate change or extreme natural events.

Results-based financing (RBF). A financing approach that involves providing funds to projects or programs based on the achievement of specific pre-agreed results and objectives. Instead of receiving funds based on activities or efforts, organizations or initiatives receive financing once they demonstrate that they have achieved the desired results or have generated measurable and verifiable impact.

Rigor. The high-quality and excellence-focused approach in Microsol's projects and programs, using rigorous measurement and evaluation methods.

Social impact. Positive effects that Microsol's projects have on vulnerable communities, improving their quality of life and well-being.

Socially Responsible Investment (SRI). A type of investment that considers both financial returns and positive social and environmental impacts.

Sustainable Development Goals (SDGs). Global goals established by the United Nations to address challenges such as poverty, climate change, and equality.

Sustainable development. Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Sustainable solutions. Responses and approaches that aim to maintain a balance between human development and the conservation of the environment.

Tuki Wasi (TW). A Quechua expression that means "pleasant house".

United Nations Framework Convention on Climate Change (UNFCCC). An international treaty established in 1992 under the framework of the Earth Summit in Rio de Janeiro. Its main objective is to address global climate change and its effects. It provides a framework for international cooperation and negotiation of actions aimed at mitigating greenhouse gas emissions and adapting to the impacts of climate change.

Utsil Naj (UN). A term derived from the Maya language, specifically from the Yucatec Maya language spoken in the Yucatan Peninsula in Mexico, which means "good fire" in English.

Voluntary carbon financing. Obtaining funds through the sale of low-carbon contributions in the voluntary market, which are purchased by organizations looking to reduce their own emissions.

Vulnerability. The condition of being exposed to risks or harm, especially in the context of rural communities and in the face of challenges such as climate change.









I N S T I T U T I O N A L M E M O I R

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