

TERMS OF REFERENCE FOR THE FINAL EXTERNAL EVALUATION

MANUFACTURE AND DISTRIBUTION OF SOLAR COOKERS IN PERU AND BOLIVIA



Applicant: GoodPlanet Foundation

Project: Manufacture and distribution of solar cookers in Peru and Bolivia

Countries: Peru - Bolivia

Funding: GoodPlanet Foundation

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I. The Project

1. Context

In the Andes, cooking is mainly done with firewood or gas. However, for most families, gas is very expensive and firewood is the main option, which results in significant land clearing. In addition, the use of firewood has serious health repercussions with the lack of ventilation in the houses. Each year, indoor air pollution is responsible for the death of 4 million people worldwide, or one death every 8 seconds (source WHO).

Faced with this observation, the French association Bolivia Inti Sud Soleil (BISS) has undertaken the diffusion of solar cookers made from local materials (wood, llama/sheep wool, etc.) in Peru and Bolivia in order to substitute solar energy for wood energy and natural gas for cooking needs. The project is being developed in the regions of Puno and Arequipa in Peru, and La Paz, Oruro and Cochabamba in Bolivia.



Figure 1 Project area in Peru

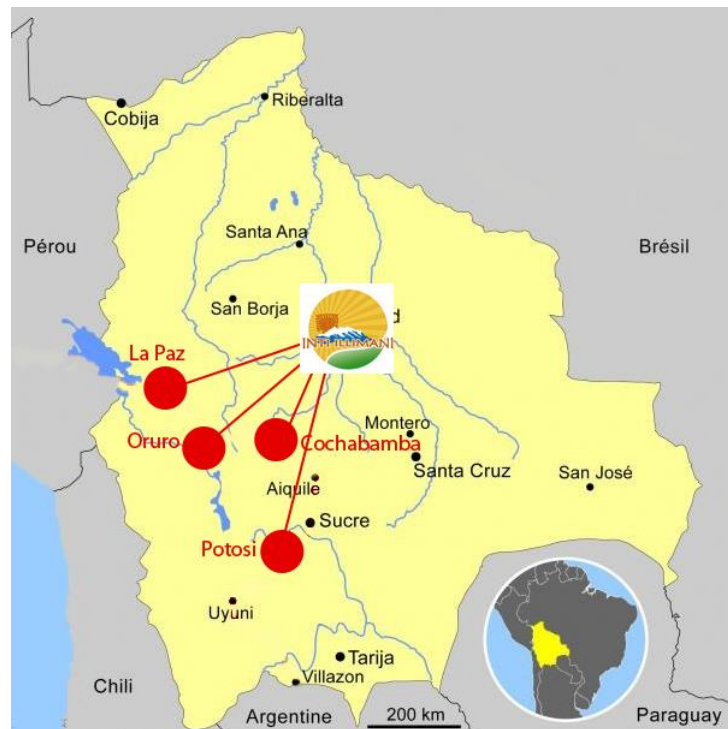


Figure 2 Project area in Bolivia

The solar greenhouse cooker consists of a wooden casing with a metal inner box with reflective surfaces. Between the two walls, insulation is made with locally available materials. According to BISS, it allows temperatures of 150 to 200°C to be reached and a homogenous cooking process that does not require monitoring.



Figure 3 Solar cooker in use phase

The project is financed by the GoodPlanet Foundation through the voluntary carbon offsetting mechanism. Reductions in greenhouse gas emissions, made possible by the substitution of solar energy for fossil fuels and firewood, enable the project to generate carbon credits. These carbon credits are certified by the Gold Standard carbon certification label, a label created in 2006 by a panel of non-governmental organizations. The purpose of this label is to guarantee that the carbon credits generated by the various projects are real, verifiable and that these projects do indeed contribute to sustainable development.

The carbon credits are then purchased by companies or individuals and the resulting funds are used to finance the project.

The solar cookers manufacturing and distribution projects in Bolivia and Peru are respectively registered to the Gold Standard under the numbers GS813 and GS814.

2. General and specific objectives

General objective

Contribute to the fight against climate change by reducing deforestation and the use of fossil fuels and improve the living conditions of rural Andean families through the diffusion of solar cookers.

Specific Objectives

- Organization of 4-day workshops allowing beneficiaries to build their own solar cooker using local materials.
- Training of the beneficiaries in the maintenance of solar cookers in order to empower them.
- Regular monitoring to ensure the proper use of the solar cookers and to identify possible problems or hindrances to their use.

3. The partners of the project

This project was carried out in partnership with the French association Bolivia Inti Sud Sud Soleil, the Peruvian associations AETIP (Puno), Inti Arequipa and Ecosol Perú (Arequipa) and the Bolivian association Inti Illimani.

Inti Energies Solidaires (formerly Bolivia Inti - Sud Soleil)

French association based in Nantes, BISS is in charge of the coordination of the project at the local level thanks to partner teams based in the field and who put the "sun at the service of development". BISS has been developing an expertise for 20 years on solar and ecological cooking, in the Andes and also in Africa. Since 1999, it has enabled the diffusion of more than 20,000 solar cookers and the avoidance of more than 100,000 t of CO₂,eq in the Andes (Bolivia, Peru, Chile, Argentina). Its action also focuses on raising awareness in Northern countries of the challenges of access to energy in Southern countries and reducing our ecological footprint.

INTI ILLIMANI

In Bolivia, a local BISS branch implemented the first solar cooker dissemination program in 2000. In 2007, BISS launched a program of local capacity building (technical, administrative and financial) which led to the creation of the Bolivian association, Inti Illimani in 2009. Since then, BISS and Inti Illimani have been working together through annual partnerships to promote solar cooking.

Asociación Ecológica Titicaca Inti Perú (AETIP)

In 2002, a second BISS branch was created in Peru, in the region of Puno, through a transfer of skills from the Bolivian team. The local capacity building program launched by BISS led to the creation of AETIP in 2013. In spite of the legal autonomy acquired, this partner has not managed to create a dynamic that would allow it to develop, its activities stopped in 2014.

INTI AREQUIPA

In Peru, a second Peruvian team was created in 2005 in the region of Arequipa. The empowerment process led to the creation of the association Inti Arequipa in 2012. Despite undeniable local skills and growing autonomy, the reduction in funding from BISS and its partners in 2015 did not allow for the continuation of a full-time activity throughout the year. This resulted in the departure of members of Inti Arequipa to another activity.

Ecosol Perú

At the end of 2016, BISS had a new partner to continue new solar cooker distribution programs in the Arequipa region. The new partner association, Ecosol Perú, was formed with a member of Inti Arequipa and two new collaborators. A 3-year partnership (2017-2020) has been concluded between Ecosol Perú and BISS, the terms of renewal of the partnership between these two entities have not yet been defined.

4. Indicators of achievement

The numbers of cookers distributed and training courses carried out per country, over the duration of the project, are as follows:

	Peru		Bolivia	
	Number of cookers distributed	Number of construction workshops	Number of cookers distributed	Number of construction workshops
2006	410	24	453	22
2007	663	33	401	20
2008	768	38	420	21
2009	674	36	400	20
2010	856	36	582	29
2011	1051	42	660	32
2012	967	38	660	33
2013	809	33	500	25
2014	294	15	402	21
2015	252	10	154	9
2016	17	2	155	8
2017	140	7	110	5
2018	140	10	247	10
2019	140	4	120	4
TOTAL	7181	219	5264	185

II. Objectives of the evaluation mission

1. Main objective

The main objective of the mission is to evaluate the performance achieved and to prepare the project completion report. It will aim to measure the results and impacts of the project as a whole, based on the project documents and the analysis of data collected in the field.

2. Specific objectives of the audit

The mission includes the following specific objectives on several scales:

2.1. Analyze the impacts of the project on the beneficiaries, their adhesion and involvement in the projects

- Evaluate the relevance of the project to the priority needs of the beneficiary communities;
- Evaluate the level of mobilization and awareness of the beneficiaries prior to the implementation of the project;
- Evaluate the level of satisfaction of the users of the solar cooker for domestic cooking (interviews to be planned with the women beneficiaries/users);
- Evaluate the total percentage of the beneficiaries still using the solar stoves based on the age of the stove. If not in use, the reasons why the beneficiaries stopped using the technology;
- Evaluate the capacity of the beneficiaries to carry out the maintenance of the solar cookers by their own means;
- Evaluate the rate of reconstruction of the solar cookers by the beneficiaries. If this rate is low, explain the reasons. If this rate is high, specify the context in which the cooker is rebuilt (personal use when the stove is broken or when the family needs a second one, sale, etc) and the economic benefits for the beneficiary families;
- Assess the economic impact of the project on the beneficiaries (for example, as they stop buying firewood, or LPG for cooking which leads to income savings);
- Evaluate the adoption of new income-generating activities by women through the introduction of the solar cooker or the improvement of existing activities.

2.2. Assess the relevance of the technology to the needs of the beneficiaries and the development priorities of the host countries.

- Evaluate and assess the relevance of the choice of solar cooker technology to meet the challenges of access to energy in rural areas in the circles concerned;
- Evaluate and assess the appropriateness of the solar cooker with the cultural context of the targeted populations;
- Assess the coherence of the project with national and local policies.

2.3. Evaluate the sustainability of the actions implemented within the framework of the two projects.

- Evaluate the sustainability of the actions implemented: i) the use of solar cookers; ii) the viability of the equipment; iii) the economic viability for the beneficiaries (direct and indirect benefits, capacity to finance maintenance and/or construction);
- Assess the capacity of the project to continue in the long term, with the beneficiaries, without the presence of NGOs.

2.4. Evaluate possible avenues for improvement for a future project in Bolivia.

- To draw the main lessons from the intervention and to formulate practical recommendations, in particular by proposing solutions for strengthening and/or improving the activities to be carried out in the framework of future projects on the same subject in Peru and Bolivia (with a view to possible spin-off or change of scale);
- To formulate recommendations in the form of action plans specifying the implementation horizon, the person(s) or entity(ies) in charge of this implementation and possibly the necessary means. This action plan will be validated by the Consultant with the project holders.

III. Tasks of the consultant

The consultant will propose a methodological note for the realization of this study. The elements below are suggestions to guide him.

The consultant will carry out a preparatory phase of study of the bibliography and documents of the project and will propose a synthetic document for the scoping of the evaluation study. This document will be the subject of an exchange between the project leaders and the consultant and will allow to discuss how they intend to structure the evaluation process. In particular, the analysis methods used will have to be precisely explained.

The consultant will have to travel to the project intervention area. They will base themselves on the exchanges they will have had with the project stakeholders and the implementation team, as well as on visits of a significant number of beneficiaries in order to make a synthesis of the context and the stakes, and to meet the specific objectives of the study.

The consultant will carry out the study according to the detailed plan proposed in the preparatory phase.

The consultant will organize restitution sessions of his draft report. The observations collected will have to be taken into account in the final report.

This list of activities is not exhaustive and the consultant will have to call upon his experience to propose any relevant activity likely to contribute to the achievement of the global and specific objectives of the mission.

IV. Required profile

The consultant will have to justify a solid experience in auditing, evaluation and carrying out similar missions. The consultant will have to justify three similar missions properly carried out during the last five years.

The consultant will have to justify the following skills:

- Knowledge and professional experience in auditing and evaluation of projects;
- Experience in development assistance;

- Technical and sectoral knowledge and expertise in the following areas: solar thermal energy, sustainable cooking, rural development, climate change mitigation, carbon finance;
- Experience in Peru and/or Bolivia and knowledge of the Bolivian and Peruvian institutional contexts;

Key personnel should include:

- A socio-economist specialized in project monitoring and evaluation, with at least five years of general experience and having carried out at least three similar missions in the last five years;
- An engineer with an in-depth knowledge in solar energy projects, with at least five years of general experience and having carried out a similar mission within the last five years.

It is possible, but not mandatory, to use additional members in order to benefit from a variety of skills that can respond to the different challenges of the project evaluation.

V. Deliverables and duration of the mission

It is imperative that the consultant provide the following deliverables during the evaluation:

- A start-up orientation report five (5)* days after the start of the mission;
- An provisional evaluation report; fifty (50)* days after the start of the mission and after the organization of a debriefing session on provisional results;
- A final evaluation report, five (5)* days after comments have been made on the provisional report;
- An action plan to implement the recommendations;
- A presentation to present the main findings of the study at the evaluation debriefing meeting.

The scoping notes, draft report and slide presentation will be submitted in electronic format, and the final report in electronic and hard copy. All documents should be written in French or English.

The validation of the final report by the GoodPlanet Foundation will mark the end of the contract.

The mission will take place over a period of 55* days, starting from the notification of the service order to start the services.

The service provider will have to, in view of the present terms of reference, propose a provisional schedule for the study.

**These deadlines may be discussed again in case of extension of the mission due to the Covid-19 epidemic.*

VI. Rules of consultation

1. Documents to be submitted by the consultant

The consultant invited to bid will be required to provide the following:

- A technical offer including :
 - A note of understanding of the terms of reference and presentation of the methodology used (3 pages);

- The references and experiences of the consultant on the themes concerned (4 pages maximum);
- The constitution of the team, the distribution of responsibilities among its members and the proposed CVs;
- The provisional schedule of intervention as well as an estimate of the intervention time in man/days;
- A financial offer in a separate document including the global budget (all taxes included in EUR) and detailed prices (fees, per diems, transport...).
- The Declaration of Integrity, Eligibility and Environmental and Social Commitment completed and signed by the authorized person.

2. Applications deadline

All applications must be sent before **January 22nd, 2021** to the following addresses: matthieu@goodplanet.org and aminata@goodplanet.org.

3. Confidentiality

All information concerning the project for the manufacture and distribution of solar cookers in Peru and Bolivia, included in the documents of this call for tenders or provided separately, must be treated in strict confidence by the consultant. Applicants agree not to disclose or publish any information related to this Request for Proposals.

Similarly, any documents provided by the Contractor will be treated as confidential.

VII. Selection method

The candidate will be selected on the basis of technical quality and cost. The weight of the technical offer will be 70% and the weight of the financial offer will be 30%.