NORDIC CLIMATE FACILITY

Nordic Development Fund · Nordic Environment Finance Corporation

Final Report

Financing sustainable energy through remittances flows to Bolivia, Bolivia

Grantee: ***Gaia Consulting Oy (Gaia)***

Local Partner(s): ***Bolivian-Spanish Association for Cooperation (ACOBE/AMIBE)***

Other Partner(s): ***Basel Energy for Sustainable Development (BASE), Arc Finance (Arc), Servicios Integrales de Energía S.A. (SIE), and Transfer Latina***

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1. EXECUTIVE SUMMARY

On an annual global basis, some US$440 billion are sent as remittances from immigrants to developing countries[1]. At the Spain-Bolivia axis, the annual remittances flow from Spain approximates US$430 million despite the economic slowdown in Europe in recent years.

The objective of the project has been to 1) enable financing of sustainable energy solutions through remittance flows to Bolivia, and hence 2) contribute to climate change mitigation through greenhouse gas (GHG) emission reductions in Bolivia.

The business model and market strategy were designed and formulated based on market research in Bolivia and Spain that was carried out and completed in 2013. Local partners were engaged to implement the business model, and in October 2014, the commercial platform EcoBazar was launched, with solar water heaters as the first green technology being rolled out.

The business model combines 1) strong local financial partners with the capability to provide financial services at competitive interest rates, 2) an experienced local Bolivian technical installation, maintenance, and after sales service provider, and 3) sales and information networks in both Bolivia and Spain.

The business model allows Bolivians in Spain and/or Bolivia to channel remittance income to purchase renewable energy (RE) or efficient energy (EE) devices - in full, in instalments, or as part of a credit decision - from a financial institution. The commercial operations are supported by the internet-based platform EcoBazar (www.ecobazar.org) as well as through a Facebook portal[2].

The financial partner institutions include Banco FIE and Banco Los Andes ProCredit. The technical provider Servicios Integrales de Energía S.A (SIE) is an importer and retailer of solar thermal systems. In Spain, Elpuntosolar and Transfer Latina provide the Spanish sales network, whereas Acobe focuses on awareness raising.

Since the start of sales in October 2014, the project has gained a market share of approximately 50%, corresponding to app. 150 Solar Water Heaters (SWH) of different sizes and technology (heat pipe or atmospheric) sold through EcoBazar. Considering an average operational life of 15 years for each SWH sold and installed by end November 2015, the project is expected to contribute to total greenhouse gas emission reductions in the range of 8000 tCO_2e. In accordance with the existing business plan for 2016-2017, assuming a healthy SWH sales development and the

[1] World Bank. See e.g. www.worldbank.org/en/news/press-release/2015/04/13/remittances-growth-to-slow-sharply-in-2015-as-europe-and-russia-stay-weak-pick-up-expected-next-year

[2] https://www.facebook.com/profile.php?id=100008597917024&fref=ts

introduction of new product categories to the platform in Bolivia, the business is expected to generate a minimum of 30 000 tCO2e in GHG emission reductions.

While the sales by end November 2015 has been lower than originally planned, the tested and operationalized business model provides a good basis for upscaling and roll-out of other RE and EE technologies and an expansion opportunity to other markets and countries with further emission reduction potential. In addition to NCF funding, private funding has critically contributed to the overall success of the project.

2. ASSESSMENT OF IMPLEMENTATION OF THE PROJECT

2.1 Implementation of Activities

Activity 1: Start up, presentation and structuring of the project

The start-up phase included consultations with international and national organisations with special expertise on remittances, finance and development, including the World Bank, Inter-American Development Bank, UNDP, GTZ/GIZ and Money Transfer Organisations to learn of their experiences and to create synergies.

In line with project proposal grantee Gaia provided project management, BASE contributed with business modelling and market development, Arc Finance carried out market research and provided remittance expertise, and Acobe has supported implementation in Spain (Figure 3).

The project secured local understanding and presence through the engagement of a local project manager (April 2012-June 2013) and further strengthened it by working through established Bolivian organisations and wider networks supporting the project (July 2013 onwards). In 2013, Banco FIE and Energética (an NGO with focus on RE) were engaged as financial and technical partners, respectively. In 2014, SIE, Banco Los Andes ProCredit (Banco Los Andes) and Transfer Latina in Spain were engaged in the further launch and implementation of the business model. In 2015, Elpuntosolar was added to the sales network in Spain (see Activities 3-5 below).

Activity 2: Market research

Market research in Bolivia and Spain revealed a genuine interest in RE/EE products, and indicated willingness to fund such technology with remittance flows. The Bolivian remittance market available for RE/EE technologies was estimated at US$7 million/year, considering type of sender and recipients, and remittances allocated only for home expenses, as well as residential investment needs. The

Figure 1: SWH on roof top

market research singled out Solar Water Heaters (SWH, Figure 1) as market entry technology (see Annex 4 for other assessed technologies).

The market research indicated that the Spain–Bolivia remittance corridor make up more than 50% of remittances to Bolivia, hence this became the focus of marketing and sales activities. Through a total of 16 focus groups (10 in Bolivia and 6 in Spain, with due care on representativeness related to gender, age, education, income, occupation) the energy needs of Bolivian families and the best ways to connect them with RE/EE products were assessed.

Activity 3: Design of the business plan

The project evaluated several business model structures, and settled on a partnership commercial model due to its operational efficiency. SIE became the local Bolivian partner, and a business was designed with the following key features: 1) access to consumer credit, 2) incorporating the possibility to transfer remittances in the form of goods rather than the usual form of cash, 3) upscaling possibilities, 4) cost effectiveness, and 5) market reach among Bolivian consumers, both in Spain and Bolivia. Bolivian cities in focus included Santa Cruz, Cochabamba and La Paz. Based on the market review SWH were selected as launch technology, later to be followed by other technologies.

In order to implement the business plan, Banco FIE and Banco Los Andes were engaged, together with the Bolivian technology provider SIE responsible for sales, after-sales and maintenance. In Spain, the project engaged Transfer Latina, reaching consumers through its network of locally established service kiosks. For marketing and information purposes the project developed the EcoBazar brand (Figure 2) with an internet based commercial platform (www.ecobazar.org), also containing a customer resource management module for accurate follow up.

Figure 2: EcoBazar brand

Activity 4: Project piloting

The organizational setup was confirmed in start of project piloting in line with the identified business plan and technology choices. With the intention of setting up an independent business in Bolivia, the project signed a MoU with Energética in March 2013, with the responsibility to orchestrate the financial and technology actors in Bolivia. In evaluating options, the project identified SIE as the most suitable technology provider for SWH in Bolivia. The MoU with Banco FIE was signed in March 2013 and renewed in 2014. Transfer Latina, which serves the Latin communities in Spain by e.g., shipping goods from Spain to Bolivia and vice versa, was engaged in September 2014 by the project. The company is well known by the Bolivian community in Spain and has a network of kiosks across Spain, other European countries as well as Bolivia. In order to extend market reach and

strengthen the platform, another financial institution Banco Los Andes was engaged in October 2014. Setting up a separate, independent business unit in Bolivia by Energética and Eco Bazar (ref. MoU above) was however rejected due to legal considerations.

The initial marketing strategy included radio, TV, fairs and promotions. The project later discontinued TV promotion, but added social media as a new venue. In Spain, EcoBazar was promoted through printed media as well. The initial approach focusing solely on product characteristics was complemented by a more testimonial based strategy, in order for people to identify emotionally with the product.

Activity 5: Final setup of the platform and commercialization

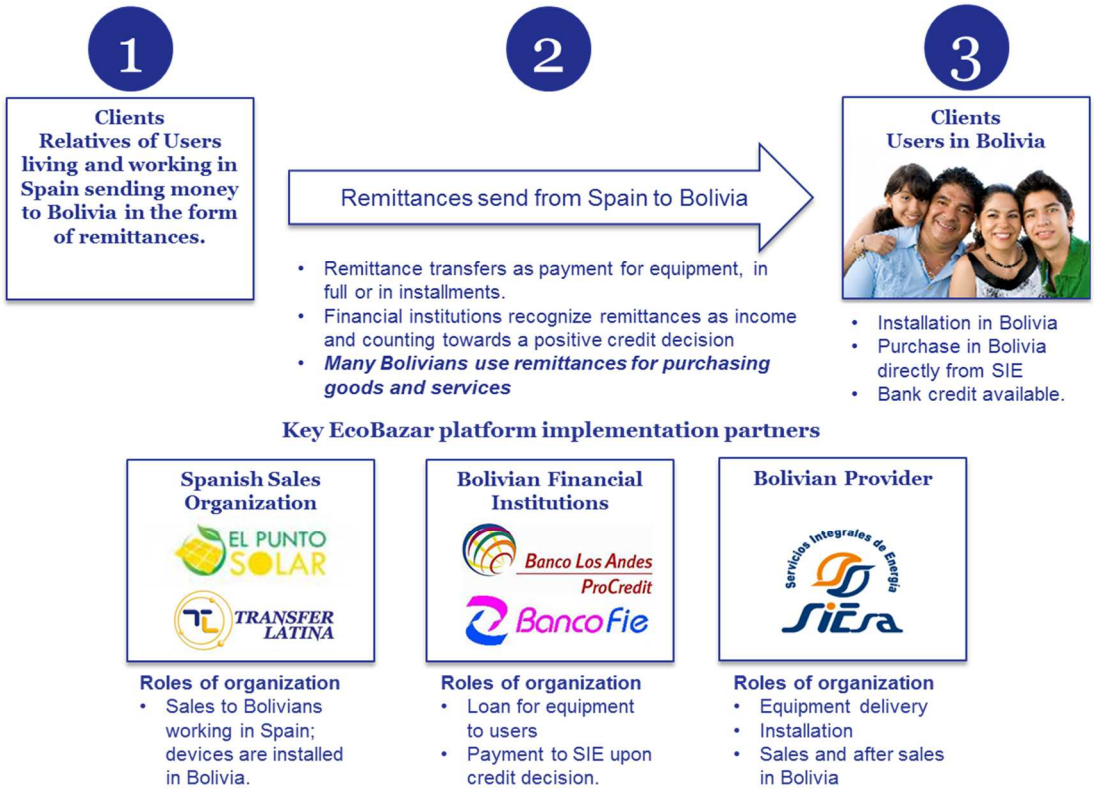
Building on piloting activities, the project put in place a well-defined sales structure both in Bolivia and Spain, allowing for accelerated SWH sales and future upscaling. All business partners were contractually committed and the commercial platform EcoBazar was made fully operational.

The project successfully developed a credit mechanism that enables consumer credit access. The commercial setup also enables immigrants that live and work in Spain to purchase RE/EE technology that can be delivered to their families in Bolivia.

EcoBazar targets consumers through four main pathways: 1) SIE with offices in Cochabamba and representations in La Paz and Santa Cruz[3], 2) internet site and Facebook, 3) Banco FIE and Banco Los Andes; and 4) Elpuntosolar and Transfer Latina in Spain. The current marketing strategy includes traditional media, social networks (e.g., YouTube and Facebook) as well as seasonal promotional campaigns.

[3] In late 2014, SIE made available its network of sales points and professionals in Cochabamba, La Paz and Santa Cruz, replacing Energética as the main local partner.

Figure 3. Graphical project overview and the commercial platform with key implementation partners, and their respective areas of responsibilities.



Sales activities started in October 2014 in Bolivia, followed by marketing and promotion in Spain in November that same year. By November 2015 awareness raising, marketing and promotion in Spain and Bolivia has targeted an estimated 50 000 Bolivian immigrants living in Spain and 250 000 potential remittance recipients in Bolivia. By November 2015, the project has gained a 50% share of the current market[4], and an estimated 2 000 individuals have benefitted directly from the delivered RE/EE services. Sales in Bolivia has grown steadily, while demand in Spain have seen an increase, particularly in the fall of 2015, with a steady increase in requests for quotations (for sales dynamics see Annex 2)[5]. Subsequently, the market outlook is positive with the potential of significant growth in sales.

EcoBazar participated in the Green Latin America Prizes[6], an annual competition that evaluates environmentally sustainable projects in the region, and was regarded the best service in Bolivia in the *Emissions* category, and the second best in the *Energy* category. Approximately 500 projects signed up for the competition.

Activity 6: Project monitoring and field visits

[4] Including 18 SWH to four rural hotels, thus supporting the livelihood of small business as well.
[5] As a corporate social responsibility component, the project donated four SWH devices to social institutions (further discussed in section 4).
[6] Link to page (in Spanish): http://premioslatinoamericaverde.com/

In total sixteen project management and monitoring missions were made to Bolivia and three to Spain during different phases of the project by Gaia's representatives based in Europe and Latin America. Project partners Arc Finance and BASE made two visits each to Bolivia and one to Spain.

As part of the monitoring and business model refinement, a customer survey was carried out in Q2 2015. The results show a 90% client satisfaction and that at least 20%[7] of the current clients receive remittance finance as part of their income. All new customers are surveyed with relation to satisfaction upon delivery and installation.

The project also developed an MRV approach to allow systematic monitoring and reporting of emission reductions, also in use upon project completion.

2.2 Deviations from the Planned Activities

2.2.1 Activities that have not taken place

While the overall project objectives and strategy have remained unchanged, the project structure has been modified according to the evolving business requirements (see 2.1 above). The amended list of activities is summarised in the updated log-frame in Annex 1.

By November 2015, actual sales performance remained considerably lower than the originally planned target of 5 000 RE/EE units. Reasons for lower sales performance during the project timeframe include a delay in project implementation and hence in entering the commercialisation phase, as well as the decision to focus early commercialisation on one technology option (SWH) only. The strategic decision to focus only on SWH has enabled the project to adequately concentrate on business model set-up, and focused promotion. The original sales estimates assumed parallel, early commercialisation of other RE/EE technologies, including high volume turnover devices such as energy efficient home appliances, LED lights, small wind turbines, and ground heating technology (Annex 4).

2.2.2 Unforeseen activities that have taken place

The project was delayed due to (a) the significant and unforeseen delay in materialising the pledged financial support from the International Fund for Agricultural Development (IFAD), (b) the complicated administrative process to establish the originally designed business entity that was supposed to operationalize the commercial functions of the platform for financing sustainable, (c) the delay by banking partners in implementing the developed consumer credit solution.

[7] The actual figure could be closer to 40-50% due to sensitivity matters in people sharing their income data.

With regards to the overall enabling environment, the Government of Bolivia's policy on extending and possibly subsidizing the national gas grid and related products, has slowed down sales of SWH and their market penetration. There have also been international aid projects aiming to subsidize, among other SWH, which the project has had to accommodate. In addition, the continued weak economic growth in Europe has decelerated remittance-flows from Spain to Bolivia.

2.3 Achievement of Outputs and Objectives

Planned Objectives and Outputs	Indicator(s):	Achievement of the objectives and outputs:
Identifying and assessing market potential		
Market research conducted and reported.	Market assessment report submitted	Market assessments in Spain and Bolivia completed.
Structuring the business model		
Preliminary business model based on market research.	Preliminary business model identified.	Preliminary business model developed and agreed upon.
RE/EE products identified based on consumer preferences.	List of RE/EE products based on demand assessment.	Products identified and priority technology selected based on focus group preferences: Solar Water Heaters (SWH).
Cooperation partners selected.	Signed collaboration agreements.	MoU signed with Energética and Banco FIE.
Refining the business model		
Legal business setup for the commercial platform EcoBazar in Bolivia.	Study and report by legal advisor.	Legal assessment completed allowing entering into a business agreement with SIE
Sale and distribution channel in Spain.	Agreement with Spanish distribution channel.	Agreement signed with Transfer Latina.
Marketing and sales readiness.	Marketing material and sales force personnel available.	Website and in-use testimonials, printed and electronic promotional material available. Sales force established in 3 main cities of Bolivia.
Terms with financial institutions and suppliers defined.	Agreements with financial institutions and suppliers.	Agreements signed with Banco FIE and Banco Los Andes ProCredit. Agreement signed with SIE and Transfer Latina.
Piloting the project		
Training of partner in Madrid.	Training completed.	Training conducted and guidelines provided with follow up and regular support delivered.
Roll out of the marketing campaign.	Marketing campaign strategy established and implemented.	Marketing campaign implemented with an estimated 50 000 people reached in Spain and 250 000 in Bolivia, including social media, participation in fairs and events.
Around 400 SWH devices sold.	Sales data.	149 devices sold in piloting phase.
Evaluating and improving the business model		
Determine baseline and indicators.	Baseline and indicators are defined and available.	Sales targets and emission reduction targets set and development of MRV accomplished.
Develop monitoring tools	Monitoring tools developed.	Completed customer surveys in Spain and Bolivia, including continual customer feedback.
Document lessons learned and results.	Results and lessons learned documented.	Lessons learned analysed and documented in final progress report and Final Report.
Recommendations for leveraging results		
Disseminate results through	Results accessible in	Results disseminated through project website,

multi-media platforms.	various forms and media.	social networks and the Final Report.
Recommendations on mechanisms for replication	Recommendations prepared and disseminated.	Recommendation on replication included in the Final Report and disseminated through UNEP and other international fora (incl. COP 21).

3. CLIMATE CHANGE

By November 2015, the emission reductions of the project, through sales and installation of 150 solar water heater systems (SWH),[8] amount to approximately 8,000 tCO_2e. The annual emission reduction so far is lower than originally planned due to the decision to focus on one initial technology and due to lower than expected sales (section 2.2). However, the replicability potential, which is at the core of the business concept, is considerable. Over 2016-2017, assuming a healthy SWH sales development and the introduction of new product categories to the platform, the business is expected to generate 30 000 tCO2e in total GHG emission reductions (as above, taking into account an expected operational lifespan of circa 15 years of all installed devices).[9]

4. DEVELOPMENT IMPACTS AND CROSS-CUTTING ISSUES

The project has contributed to more sustainable energy services through improved access to renewable and more efficient energy services in Bolivia. By November 2015 approximately 150 families in La Paz, Cochabamba and Santa Cruz have gained access to renewable energy solutions.

In addition, SWH were installed at three social institutions[10] that aim to 1) strengthen family relationships, 2) support abused girls and young women; and 3) help mentally challenged persons; with a total of 2 000 low income persons hereby reached for improved energy access and security.

The project has targeted at least an estimated 50 000 Bolivian immigrants living in Spain and 250 000 potential remittance recipients in Bolivia through its various marketing and sales measures increasing overall awareness on the financial and environmental benefits of using renewable and more energy efficient solutions. Several project beneficiaries have been able to showcase considerable cost savings from the installation of solar water heaters.

The possibility of access to consumer credit for lower income segments, which has been addressed during the project through the cooperation with Banco FIE and Banco Los Andes, has the potential to ensure wide societal reach, including better

[8] Assumes a total equipment lifespan of 15 years.

[9] The bulk of additional emission reductions arising from SWHs to be installed in 2016-2017, with a small share of expected emission reductions arising from new product categories, in particular LED lighting.

[10] These institutions include: 1) Aldeas Infantiles SOS, 2) Centro Madre Ascencio Nicol de Fe y Alegría El Alto-La Paz, and 3) Centro de Rehabilitación y Reinserción REMAR Santa Cruz.

targeting of rural areas during upscaling. Good governance and gender aspects have been considered and respected throughout the project activities; however, no explicit gender related goals were set for this project.[11] The operations are planned to be further scaled up (see section 6), with respective developmental impacts expected to realize and grow accordingly.

5. ASSESSMENT OF THE RESULTS AND IMPACTS OF THE PROJECT

5.1 Relevance

The project is highly relevant and in line with Bolivian climate commitments. Bolivia has prepared a set of roadmaps to coordinate climate change efforts including its national communications to the UNFCCC and its *Intended nationally determined contributions* (INDC, submitted in October 2015). The country has also in place programmes to increase energy access such as the "Electricity to Live with Dignity".

The market research conducted and ongoing sales feedback confirm consumer interest and the relevance of the project for project beneficiaries, including cost savings in electricity spending as well as improvements in personal safety (i.e. no risk of electric shock or gas leaks in case of the SWH). Some project beneficiaries have also noted their appreciation of the project´s environmental/climate benefits.

SIE supports the development and increase of renewable and efficient energy devices, and is contributing to employment creation in these sectors. The two participating banks have welcomed the initiative of the project to improve such credits and further enhance access to modern, climate friendly forms of energy.

5.2 Effectiveness

By November 2015 the project had been moderately effective in reaching the overall objective of contributing to GHG emission reductions in Bolivia, and enabling better access to affordable and sustainable energy to urban and rural low-income households. These objectives are clearly satisfied in the creation of a functioning scalable innovative business operation, but attaining high effectiveness will require successful upscaling and ensuring improved access to lower-income households.

The overall stage is set for such an upscaling, and replication in other regions/countries. It is central that financial institutions have committed to consider remittance payments as additional income in their consumer credit evaluations, hence linking remittances with the financing of RE and energy efficiency. Overall sales has picked up speed, although sales in Spain still needs more attention. Demand among Bolivians living and working in Spain is firmly established.

[11] The project has not addressed cross-cutting issues specifically related to indigenous peoples, labour conditions, natural habitats, children's rights and/or combating HIV/AIDS.

5.3 Efficiency

The overall efficiency of the project can be considered good, with cost-efficiency reaching a good level[12] and efficiency related to time (in respect of keeping within original time schedule) reaching a moderate level, due to some delays in project implementation. The selected local partners in Spain and Bolivia have contributed to efficient implementation due to their already existing business infrastructures. In order to ensure the positive outcomes of the project, the Grantee and other Local Partners have provided more in-kind input than was originally planned.

5.4 Impact

In line with the overall objectives the project has improved access to sustainable energy solution in Bolivia, providing some 150 families in La Paz, Cochabamba and Santa Cruz as well as three social institutions access to solar water heaters. The project has achieved this by demonstrating the viability of an innovative business model that links remittances with the financing of sustainable energy solutions, and by establishing a platform for financially viable and sustainable business development. The platform was launched in late 2014 and hence sales had not yet reached initially targeted levels by November 2015. The platform, which integrates financial institutions, technology providers and sales networks, sets a framework that has the potential to sustainable and financially viable up-scaling once the grant-funded project is completed.

The project has targeted at least an estimated 50 000 Bolivian immigrants living in Spain and 250 000 potential remittance recipients in Bolivia through its various marketing and sales measures increasing overall awareness on the financial and environmental benefits of using renewable and more energy efficient solutions. (see section 3 for climate impacts). Consumers participating in the focus group survey have also confirmed cost saving benefits from the installation of solar water heaters being a key impact.

5.5 Innovativeness and learning

The project contains several innovative components that have pushed the project partners towards constant and sometimes steep learning curves. The project has developed a competitive credit mechanism focused on sustainable energy by engaging renowned financial institutions, also available for low-income households. The core innovation of this project lies in the business model created and piloted that allows the use of remittance flows in financing sustainable energy. The project experience points to a number of lessons learned, including:

[12] Cost efficiency here refers to the efficiency to establish and pilot the business model for promotion of RE and EE solutions in a developing country. Evidently, it is possible to deliver single GHG emission reductions with considerably lower unit costs.

- Building the business model upon partnerships with already locally established businesses and institutions provide credibility and robustness to the business model.
- The business model should, to the extent possible, take into consideration possible changes in the enabling environment (be it market changes and/or distortions due to changed government policies or international aid projects)
- Market research can only be validated through real world experiences and data;
- Clear and active communication in multi-stakeholder initiatives (such as this one) are critical for success.
- Success in demonstration is essential for any efforts to upscale sustainable business models.
- Developmental impacts as proposed in project proposals may only realise with some delay (e.g. when a business is more established in the market place). Finding a way of validating and communicating these impacts is of interest to all parties and stakeholders.
- Success of upscaling depends on readiness for joint learning and flexibility within the funding structures, also iteratively and proactively developing "post-project" funding alternatives.

Finally it can be noted, that building a sustainable consumer business and brand – or any business or brand – takes time. The project funding structure as such does not necessarily give optimal business sense flexibility for upscaling and replication.

6. SUSTAINABILITY AND POTENTIAL FOR SCALING UP AND FOLLOW-UP INVESTMENTS

The central goal from the start of the project has been to create and establish a business model and brand with strong viability and upscale potential, once support from NCF has ended. This goal has been reached through an innovative business and cooperation model that has been developed and piloted during the project.

The existing business model has the potential for upscaling through accelerated i) SWH sales, ii) expansion to other RE/EE technologies, as well as iii) expansion to other countries with significant remittance flows and RE/EE needs. Understanding the respective roles of private and public sectors and harnessing their optimal interplay are essential in successful upscaling.

Eco Bazar business platform, due to the successful project, is in the process of investing in order to 1) strengthen the consumer finance product, 2) assess upscaling business models (e.g., partnership, stand-alone company, and/or franchising) and create a commercially viable business plan, and 3) train personnel with implementation partners in Bolivia and possible other South American countries.

7. FINANCIAL REPORTING

	Total realized		Financed by			Total realized co-financing	Total funding	Total Budgeted funding			Total Budgeted
	Costs	Financing	NCF	Harder Trust	UNEP			NCF	Harder Trust	UNEP	in-kinds
TOTALS	**770 666**	**770 666**	**489 550**	**149 464**	**14 318**	**117 334**	**694 364**	**489 550**	**149 464**	**15 000**	**40 350**
Gaia (working time, travel, and per diem)	418 886	418 886	334 239	0	0	84 648	291 400	276 400	0	0	15 000
Acobe (working time, travel, and per diem)	8 907	8 907	8 907	0	0	0	21 480	21 480	0	0	0
Arc Finance (working time, travel, and per diem)	64 266	64 266	51 875	4 591	0	7 800	87 680	71 400	8 480	0	7 800
BASE (working time, travel, and per diem)	115 125	115 125	35 099	55 139	0	24 886	78 000	34 300	32 150	0	11 550
UNEP	14 318	14 318	0	0	14 318	0	15 000	0	0	15 000	0
Harder Trust	0	0	0	0	0	0	6 000	0	0	0	6 000
Equipment, Awareness Raising and Other direct costs	149 164	149 164	59 430	89 734	0	0	194 804	85 970	108 834	0	0

8. CONCLUSIONS AND RECOMMENDATIONS

Addressing the climate challenge will require new and innovative approaches that can harness major funding streams and engage the private sector as solutions provider and true partner for climate compatible development. New partnerships, in this case between families living in Spain and Bolivia, can also be harnessed for sustainable development. However, there is need for tailored and readily applicable products, services and financial instruments to tap into such partnerships.

This project exemplifies some of the challenges as well as opportunities on this low-carbon pathway, having established an innovative platform – based on remittance flows –for the promotion of renewable energy and energy efficiency solutions, with major upscaling potential beyond 2015.

Maintaining competitive pricing and credit will remain key aspects to the overall success of the EcoBazar platform, as is marketing and awareness raising in both Spain and Bolivia. In order to harvest the full potential of the business model the following three issues will be of critical importance and remain under specific attention:

Firstly, the consumer credit mechanism: the credit mechanism should be further developed 1) to shorten and improve the credit approval process, 2) to secure and foster efficient money transfer, and 3) to become more integrated with the operations of financial institutions.

Secondly, expansion and upscaling: in order to tap into the full potential of the business model and ensure access for all key target beneficiaries, 1) the product range should be expanded to include other RE/EE technologies as well, also with an increased focus on lower income rural populations, and 2) new geographical regions should be analysed, prioritised and targeted.

Lastly, the role of awareness raising, promotions, marketing, and brand development: in order to ensure efficiency and effectiveness, awareness raising, promotions, and marketing should become more tailored to specific targets groups both in Spain and Bolivia, and even better incorporate social media tools and venues.

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Annex 1 Updated Logical Framework Matrix (as updated in MS3, October 31, 2014)

Narrative Summary	Objectively Verifiable Indicators (OVIs)	Means of Verification (MOVs)	External Factors (Assumptions)
Development Objective: To foster the use of sustainable energy (renewable energy and energy efficiency) technologies among the energy-poor in Bolivia through the demonstration of an innovative business model.	Two years after project completion: Business model continues to benefit low-income people with sustainable energy solutions. Number of low-income people benefiting from sustainable energy equipment due to solutions sold though the business model. Amount of CO2 emissions reduced or avoided as a result of the project.	Customer tracking Pre-post evaluation relying on proxies, assessment of a sample of beneficiaries, and secondary data.	The economic, political and environmental conditions in Bolivia remain stable. Bolivian consumers accept the potential of purchasing sustainable energy products as a way to improve their quality of life.
Immediate Objective: To test and prove a business model that uses remittance flows to facilitate the purchase and distribution of energy efficient devices or small scale renewable energy equipment in Bolivia.	Message reaches at least 50 000 Bolivian immigrants living in Spain Track number of RE and EE devises sold. Track amount of funds mobilized.	Customer tracking Sales tracking	There is no financial crisis that impacts the economic situation or number of immigrants in these countries. The priorities of immigrants do not change.
Output (Results) <u>Component 1:</u> Identify market potential in Argentina and Spain.	<u>Component 1:</u> Market assessment study	<u>Component 1:</u> Market assessment report submitted.	<u>Component 1:</u> Market assessment identifies target market and products.
<u>Component 2:</u> Structurethe business model; Outline the financial and operational model.	<u>Component 2:</u> Procedures and systems developed ready to roll out the business model.	<u>Component 2:</u> Report with the procedures and systems to roll out the business model produced.	<u>Component 2:</u> The business plan's assumptions are realistic; its forecasts are achievable.
<u>Component 3:</u> Roll out the business model; Pilot the project, implement awareness raising, outreach, and marketing campaigns for remitters and receivers.	<u>Component 3:</u> At least 50 000 remittance recipients reached through marketing/media campaign Around 460 sustainable energy devices are sold.	<u>Component 3:</u> The promotional materials are produced. Number of sustainable energy devices sold is documented. Records of transactions made	<u>Component 3:</u> Campaigns are well received; the behaviours of remittance senders and receivers are influenced by the messages that are disseminated. Messages, product and financial mechanisms are properly tailored to target audiences.
<u>Component 4:</u>	<u>Component 4:</u>	<u>Component 4:</u>	<u>Component 4:</u>

Evaluate the model to improve the business model.	Increased share of RE and EE technology (low carbon technology) compared to conventional technology Increased share of RE and EE investment allocated to energy production and energy efficiency capacity Improve the business model (due to feedback)	Research report submitted	Monitoring and evaluation system is implemented to ensure corrective measures are taken in a timely fashion.
Component 5: Recommendations to leverage results; Research and strategize leveraging of project results in order to build a robust pro-poor energy sector in Bolivia.	Component 5: Develop a Recommendation report.	Component 5: Recommendation report submitted	Component 5: Business model enables the extrapolation of lessons and recommendations at the national level.
Activities Component 1: Market assessment 1. Market research 2. Focus groups 3. Market assessment report	Component 1: Market assessment 1. Market research on appetite and needs of the immigrants 2. Focus groups conducted in Spain (6) and Bolivia (6)	Component 1: Market assessment 1. Market assessment reports submitted.	Component 1: Market assessment Market assessment identifies a clear market need in Spain and Bolivia, and outlines the characteristics and profile of the market – immigrants and recipients. Countries such as Argentina and Brazil are considered based on desk research and information provided by financial institutions in Bolivia.
Component 2: Structuring the business model 1. Design preliminary business plan based on previously developed market research. 2. Select products based on consumer preferences. 3. Select and negotiate with manufacturers, suppliers and distributors. 4. Develop pricing strategy. 5. Design detailed business model - document purchasing, distribution, sales and warrantee procedures. 6. Design and implement an awareness-raising campaign for the	Component 2: Structuring the business model 1. Preliminary business plan written. 2. List of products selected through demand assessments. 3. Signed collaboration agreements. 4. Documented the prices of all products. 5. Documented Business model and Procedures. 6. Strategy to raise awareness and engagement of the immigrant and their family on the benefits of sustainable energy. 7. Implement the	Component 2: Structuring the business model 1. Report with the preliminary business plan. 2. Report with a list of products that are suitable for the project. 3. Copies of agreements submitted. 4. Pricing plan submitted. 5. Business plan submitted. 6. Documented awareness raising strategy for the Diaspora submitted. 7. Documented awareness raising strategy for the Bolivian audiences submitted	Component 2: Structuring the business model Deliver a high quality business plan. Suppliers will be able to deliver products in a timely and cost-effective fashion. Import and excise procedures in Bolivia are not an impediment to importation. We are able to engage Bolivian immigrants

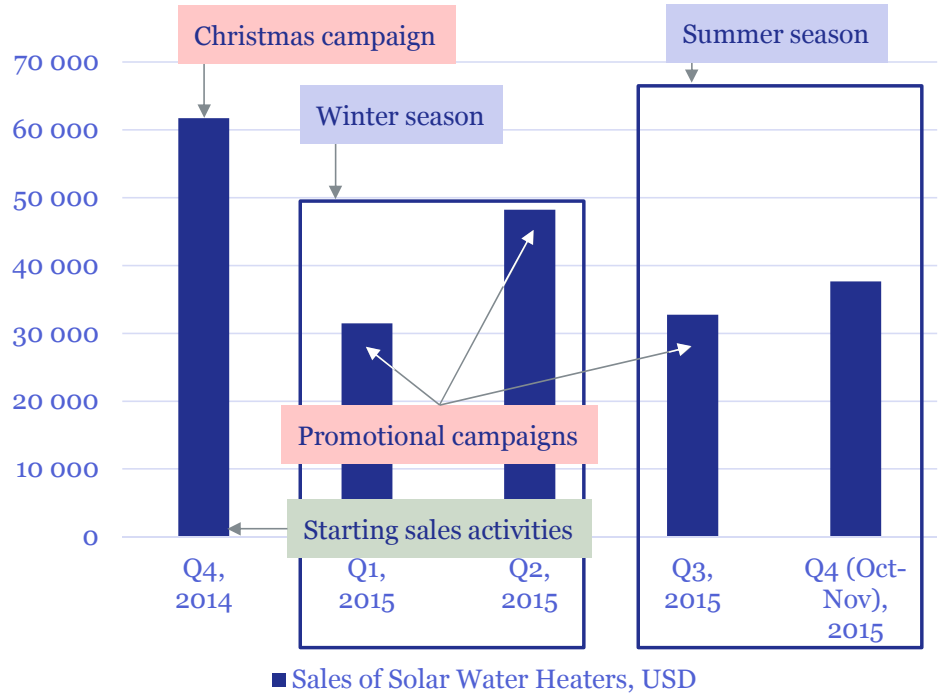
Bolivian community in the Diaspora. 7. Build awareness of the product and promote the model among remittance recipients in Bolivia	strategy to raise awareness and engagement of immigrants and their families.		
Component 3: Roll out the business model; Pilot the project, implement awareness raising, outreach, and marketing campaigns for remittance senders, receivers, and the energy-poor 1. Creation of staff training modules. 2. Training of distribution/supplier organization staff. 3. Roll out the marketing campaign 4. Prepare products stock 5. Roll out the sale and distribution channels	Component 3: Roll out the business model; Pilot the project, implement awareness raising, outreach, and marketing campaigns for remittance senders, receivers, and the energy-poor 1. Develop Training modules and material. 2. Training completed. 3. Implement marketing campaign strategy 4. Physical stock 5. Implement the sales and distribution strategy	Component 3: Roll out the business model; Pilot the project, implement awareness raising, outreach, and marketing campaigns for remittance senders, receivers, and the energy-poor 1) Training material submitted. 2) Evaluations from trainees submitted. 3) Documentation on marketing campaign activities submitted 4) Report and copy of invoices submitted 5) Documentation of sales and product delivery submitted	Component 3: Roll out the business model; Pilot the project, implement awareness raising, outreach, and marketing campaigns for remittance senders, receivers, and the energy-poor Project coordinator and partners are able to pilot and manage the project.
Component 4: Evaluate the model and improve the business model 1. Determine baseline 2. Metrics to measure indicators are defined 3. Monitoring tools (surveys) are defined 4. Researching state of the market, and document results at the end of the project	Component 4: Evaluate the model and improve the business model 1. Define the baseline 2. Assess the model using the defined metrics to measure indicators 3. Implement Monitoring tools (surveys) are defined 4. Analyse the market and the model	Component 4: Evaluate the model and improve the business model 1. Report with the baseline 2. Documented metrics to measure indicators submitted 3. Documented Monitoring tools (surveys) are submitted 4. Research report submitted	Component 4: Evaluate the model and improve the business model Project coordinator and partners are able to pilot and manage the project
Component 5: Recommendations to leverage results - Research and strategize leveraging of project results in order to build a robust pro-poor energy sector in Bolivia 1. Disseminate results through multi-media platforms (TV, internet, events, press, radio).	Component 5: Recommendations to leverage results - Research and strategize leveraging of project results in order to build a robust pro-poor energy sector in Bolivia 1. Tracking dissemination on an ongoing basis 2. Evaluate the model	Component 5: Recommendations to leverage results - Research and strategize leveraging of project results in order to build a robust pro-poor energy sector in Bolivia 1. Project report 2. Recommendations report	Component 5: Recommendations to leverage results - Research and strategize leveraging of project results in order to build a robust pro-poor energy sector in Bolivia Project coordinator and partners are able to pilot and manage the project

2. Draft recommendations report on mechanisms for ongoing support of the Bolivian pro-poor energy sector			

Annex 2 Sales dynamics and development 2014-2015

The sales dynamics and impacts of promotional campaigns have been monitored and analysed during project implementation in order to amend the targeting and timing of respective measures. The analysis during project implementation confirm that the campaigns and promotions implemented, have had clear impacts on sales. Also, the sales data suggests that consumers purchase products like Solar Water Heaters (SWH) prior to the winter season, not during the actual winter season – something to take into account in future promotion and advertising campaigns (see figure A2.1).

Figure A2.1: Sales development per quarter, September 2014 – November 2015. The activities, data, and comments refer to EcoBazar sales in both Bolivia and Spain.



Annex 3 Pictures

Figure A3.1: Installation of solar water heater and Installed Solar Water Heater

Figure A3.2: Delivery of donations under the social responsibility component of the project

Figure A3.3: Interview during delivery of SWH donated to Aldeas SOS in Cochabamba

Figure A3.4: Delivery of SWH in REMAR Santa Cruz

Annex 4 Other supplementary deliverables and documentation

Figure A4.1: Potential products that were evaluated in the market research; the project settled on Solar Water Heaters as first launch

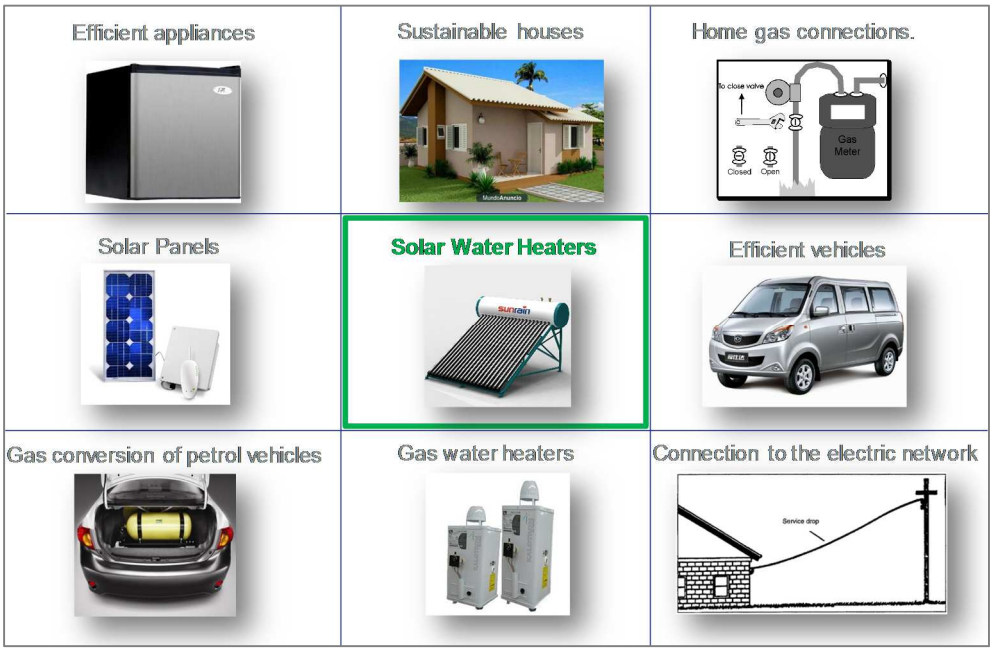


Figure A4.2: EcoBazar on the Internet, on Facebook and in the news

Figure A4.3: Example of advertisements, print and digital