ADAPTATION FUND

AFB/EFC.34/Inf.4
3 September 2024

Adaptation Fund Board
Ethics and Finance Committee
Thirty-fourth Meeting
Bonn, Germany 8-9 October 2024

SUMMARY OF EX POST EVALUATION #4 OF AF PROJECT ARG/NIE/Agri/2011/1 ENHANCING THE ADAPTIVE CAPACITY AND INCREASING RESILIENCE OF SMALL-SIZE AGRICULTURE PRODUCERS IN NORTHEAST ARGENTINA

ARG/NIE/Agri/2011/1

Ex Post Evaluation Summary

Enhancing the Adaptive Capacity and Increasing Resilience of Small-size Agriculture Producers of the Northeast of Argentina

February 2024

The Adaptation Fund (the Fund) was established through decisions by the Parties to the United Nations Framework Convention for Climate Change and its Kyoto Protocol to finance concrete adaptation projects and programmes in developing countries that are particularly vulnerable to the adverse effects of climate change. At the Katowice Climate Conference in December 2018, the Parties to the Paris Agreement decided that the Fund shall also serve the Paris Agreement. The Fund supports country-driven projects and programmes, innovation, and global learning for effective adaptation. All of the Fund's activities are designed to build national and local adaptive capacities while reaching and engaging the most vulnerable groups, and to integrate gender consideration to provide equal opportunity to access and benefit from the Fund's resources. They are also aimed at enhancing synergies with other sources of climate finance, while creating models that can be replicated or scaled up. www.adaptation-fund.org

The Technical Evaluation Reference Group of the Adaptation Fund (AF-TERG) is an independent evaluation advisory group accountable to the Fund Board. It was established in 2018 to ensure the independent implementation of the Fund's evaluation framework, which will be succeeded by the new evaluation policy from October 2023 onwards. The AF-TERG, which is headed by a chair, provides an evaluative advisory role through performing evaluative, advisory, and oversight functions. The group is comprised of independent experts in evaluation, called the AF-TERG members. A full-time secretariat provides support for implementation of evaluative and advisory activities as part of the work programme.

While independent of the operations of the Fund, the AF-TERG aims to add value to the Fund's work through independent monitoring, evaluation, and learning. www.adaptation-fund.org/about/evaluation/

This ex post evaluation is a product of the Technical Evaluation Reference Group of the Adaptation Fund (AF-TERG). The evaluation was conducted by GeoAdaptive and benefitted from the invaluable inputs and leadership by Jindra Cekan/ova (Valuing Voices), Margaret Spearman (independent consultant), Dennis Bours (AF-TERG Secretariat Coordinator in the period July 2019 – April 2023), and Mariana Vidal Merino (AF-TERG Data Analyst). The focal point for this work was AF-TERG member Susan Legro. Special thanks are also extended to all the members of the AF-TERG, Adaptation Fund Board Secretariat, and other stakeholders who provided support in the delivery and finalization of this evaluation.

AF-TERG, 2024. Ex Post Evaluation Summary - Northeast of Argentina.
AF-TERG, Washington, DC.

This report was finalized in February 2024.

Cover page images: Household cistern in Corzuela (left);
school cistern in Gancedo (right). Source: GeoAdaptive, 2023.

Table of Contents

General information ____ 1

Evaluation background ____ 2

Evaluation process ____ 3

Evaluation scope ____ 4

Evaluation methods and limitations ____ 5

Findings: sustainability, resilience, and impact ____ 6

Emerging/unexpected outcomes ____ 9

Evidence of resilience ____ 10

Adaptation Fund impact ____ 11

Lessons learned and recommendations ____ 12

General information

AF Project ID	ARG/NIE/Agri/2011/1	
Country	Argentina, Northeast region of Argentina (NEA)	
Project Title	**Enhancing the Adaptive Capacity and Increasing Resilience of Small-size Agriculture Producers of the Northeast of Argentina**	
Intervention Area	4 provinces and 49 municipalities	
Implementing Entity	**Implementing Entity: Unidad Para Cambio Rural Argentina (UCAR)** **National Implementing Entity**	
Executing Entity	Ministry of Agriculture, Livestock and Fishery	
Budget (USD)	Grant Amount: US $5,640,000	
Start date	24/10/2013	
Completion Date	31/12/2018	
Years	4.5 years	
Sector	Agriculture	
Overall Goal	Increase the adaptive capacity and to build resilience of small-scale family agricultural producers in the face of climate change and climate variability impacts, particularly those deriving from the increase in the intensity of hydro-meteorological events, such as floods and droughts.	
Project Components and Outcomes	**Component 1:** Improvement of the capacity of adaptation to climate change and variability of small-scale family producers of North-eastern Argentina **(focus of the ex post evaluation)**	**Outcome 1:** Improvements in the use and productivity of water for family agricultural producers (Indicator: % of producers with enhanced capacities to respond to climate change and variability)
	Component 2: Strengthening of information, monitoring and climate information management systems	**Outcome 2:** Improvement and enhancement of the capacity of monitoring and evaluating climate change and variability (Indicator: Density increase of hydrometeorological stations and pluviometers)
	Component 3: Generation of local and regional capabilities on the impact of climate change and variability and implementation of adaptation measures	**Outcome 3:** Municipal and provincial governmental units, educational settings, and producers with capabilities to generate appropriate adaptive interventions (Indicator: % of staff and producers with the ability to implement measures to respond to, and mitigate impacts of, climate-related events, disaggregated by gender)
Project Ratings at Terminal Evaluation	Project sustainability	Satisfactory to highly satisfactory
	Socio-political sustainability	Highly satisfactory
	Sustainability of governance and of regulatory frameworks	Highly satisfactory
	Financial and economic sustainability	Very satisfactory
	Environmental sustainability	Satisfactory

Evaluation background

This ex post evaluation is the fourth in a series of pilot ex post evaluations of strategically selected projects that have been closed between three and five years at the request of the Adaptation Fund Board to develop post-implementation learning and impact evaluation for projects and programmes.

The ex post evaluation of this project was commissioned by the Technical Evaluation Reference Group of the Adaptation Fund (AF-TERG) and aimed to analyse a project outcome in order to answer two questions:

1. Has the project outcome been sustained since project completion?
2. How do the sustained outcome characteristics contribute to the system's resilience?

These evaluations aim to gauge AF's overriding desired impact, which is: "Adaptive capacity enhanced, resilience strengthened and the vulnerability of people, livelihoods and ecosystems to climate change reduced."

Evaluation process

The ex post evaluation was conducted by the contractor GeoAdaptive with a national evaluator in the field. The evaluation started in April 2023 and included fieldwork in August 2023. It was carried out in the following stages: review of project documentation, selection of outcomes to evaluate ex post, stakeholder consultations and co-creation of the evaluation focus, field visits and data collection, data analysis, and report write-up.

Prior to the start of the evaluation, the contractor and national evaluator underwent a training on ex post evaluation methods and piloting processes. This training facilitated discussions with stakeholders that led to the selection of an outcome to evaluate the ex post evaluation methodology.

Evaluation scope

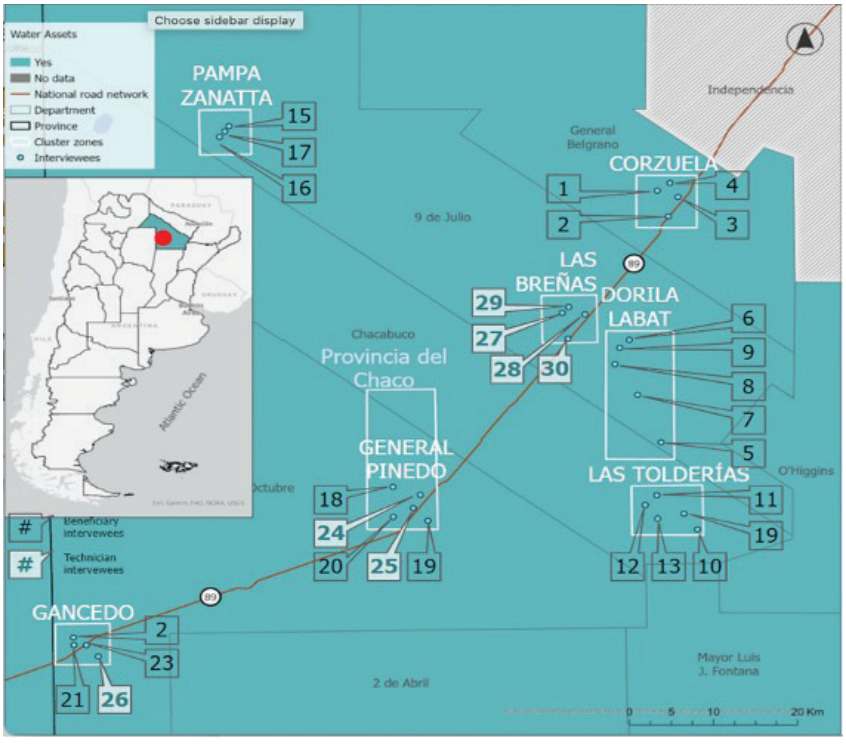
The scope of the evaluation (Component 1) was determined in consultation with the implementing entity and other stakeholders. Component 1 was evaluated for ex post: Improvement of the capacity of adaptation to climate change and variability of small-scale family producers of Northeast Argentina, specifically Outcome 1: Improvements in the use and productivity of water for family agricultural producers. Sub-component: Water access. Output: Construction of intra-property water access works for collection, storage, and management, focusing on the asset of prefabricated concrete slab cisterns.

A total of 97 cisterns were constructed in six communities.

The pilot focused on evaluating assets concentrated in six clusters and visited 24 cisterns. Cisterns aim to improve the access to water for family farming producers to increase beneficiaries' resilience against the frequent droughts that affect the region.

- Cluster 1: Corzuela – 4 cisterns
- Cluster 2: Escuela "Dorila Labat" – 5 cisterns
- Cluster 3: Las Tolderias – 5 cisterns
- Cluster 4: Pampa Zanatta – 4 cisterns
- Cluster 5: General Pinedo – 3 cisterns
- Cluster 6: Gancedo – 3 cisterns

FIGURE 1: Areas Visited During Fieldwork (Source: GeoAdaptive, 2023)



Evaluation methods and limitations

The evaluation team used qualitative tools, including one-on-one key informant interviews (semi-structured interviews) with beneficiaries and technicians, transect walks, field observation, and photographic documentation. A total of 30 interviews were carried out. Seven interviews were with technicians, which were carried out in their workplaces in the towns of Las Breñas, General Pinedo, and Gancedo. Twenty-one interviews were conducted with individual beneficiaries, who were mostly located in rural areas within the six location clusters selected, and two were conducted with schoolteachers in the case of cisterns located at schools.

Limitations of the evaluation included the following:

- There was selection bias in interviewees as the national implementing entity (NIE) selected the respondents. However, the evaluation attempted to mitigate this bias by selecting non-working cistern sites.
- The list of interviewees, before the field work, included 50 per cent women and 50 per cent men. However, during field work it was not possible to meet the 50 to 50 participation ratio. Male farmers usually work outside the house, so in many cases they were not present during the site visits. Women, who usually stay at home, were able to participate in the interviews. As a result, the gender balance of the interviews was 73 per cent women and 27 per cent men.
- A deeper ex post evaluation was limited due to a restricted budget and a short time frame for field work (five days).
- The term "farming" in interviews did not distinguish between commercial and non-commercial agriculture. Therefore, there were inconsistencies in the results of the interviews on questions asking about whether and how cisterns have improved food production.

Findings: sustainability, resilience, and impact

The sustained outcome indicators correspond to the indicators that were used during the development of the project (Project Document, Midterm Evaluation, Project Completion Report, and Final Evaluation) and to measure the selected outcome "Improved use and yield of water for family farming producers." There are two types of indicators: indicators for assets and indicators for capacities. Three of the outcome indicators correspond to assets (prefabricated concrete slab cisterns) and two correspond to capacities. The evaluation team formulated questions for the beneficiaries based on these assets.

Indicators and findings related to assets	
Outcome indicators	Findings related to assets
1. % of producers improving their response capacity and action in view of climate variability	• All the beneficiaries interviewed indicate that they have better access to water supply for human consumption and irrigation than before the cisterns began to function. They emphasize the cisterns have a great impact in the daily routine, because they do not have to carry water drums.
2. % of beneficiaries claiming improvements in agricultural productivity, related to water supply	• 65% of the farmers surveyed indicate that the cisterns improved their agricultural productivity. They mentioned the water supply contributed to the creation of vegetable gardens and farm animals. • 13% indicate that they used to have orchards but droughts made it difficult to maintain crops, so they prioritized water for domestic use. • 9% of farmers indicate that they use the water from the cisterns only for domestic use.
3. % of beneficiaries claim better access to water supply for drinking and irrigation.	• 100% of the beneficiaries surveyed indicate that the prefabricated concrete slab cisterns improved access to drinking water for domestic use.
Indicators and findings related to capacities	
4. % of staff and producers trained to implement measures to respond to climate event impacts and mitigate them (broken down per gender)	• Farmers were trained for construction and maintenance of cisterns during the project development. 61% of the interviewees indicate that they continue to use the skills learned in the training. That figure corresponds to the construction of new cisterns, sharing knowledge with others, and using that knowledge for other types of constructions. • 13% indicate that they recognize and remember the skills learned but do not put them into practice today. • 13% indicate that they did not participate in the training, but their family did.
5. Type of events that affected the communities	• The climatic events that have affected these communities have been droughts and floods. Floods affected the quality of water from wells. It also had a negative impact on animals and crops. The cisterns allowed them to have clean water for domestic use in times of drought and flood. • The NEA area was affected by droughts and floods after the project completion.

(continued)

6. % of beneficiaries that the cisterns have helped to adapt and mitigate the effects of these impacts.	• 100% of the farmers indicate that the cisterns have helped to adapt and mitigate the impacts of climate events such as floods and droughts. Cisterns contributed to avoiding displacements to look for water, improving family dynamics and quality of life. • Following major flood and drought events, beneficiaries indicate that they feel less vulnerable due to increased storage capacity. • Producers note that even when rainfall is low, the cistern still allows for them to store water from alternative sources.

Additional observations from fieldwork included the following:

- Five years after project closure, the household cisterns examined across the six clusters included in the ex post evaluation were in use and routinely maintained by the families of beneficiaries. Of the 24 cisterns that were visited, 100 per cent of them are functioning adequately for their expected use of storing water for domestic use and, in some cases, farming. A low-tech construction technique was used to build them; therefore, few resources have been needed to maintain the structures.
- Adaptive learning to climate change was promoted by involving the community in solving issues related to water scarcity through the construction of cisterns. The participative and collaborative methods utilized are highlighted as adequate to face the effects of climate change at the community level. A self-construction methodology allowed households to build their own cisterns, and fieldwork found high self-reported levels of ownership and observed maintenance.
- Notably, 68 new cisterns were built after project closure through different civil associations of family farmers.
- Based on interviews at the sites visited, interviewees indicated that women played a greater role in cistern maintenance due to their presence at home and their role in household activities. Project training in cistern maintenance during project implementation included women.

Cisterns in households: Upgrades and improvements

After the completion of the project, some farmers added enhancements to their cisterns for both water extraction and distribution. These enhancements include motor pumps instead of the original manual pumps, elevated water containers, and plumbing work within the buildings for water distribution and

Cluster 2: Escuela "Dorila Labat." Cistern with pump installed. Source: Fieldwork, 2023

(continued)

sanitary facilities. Some examples of farmers who have installed water pumps in their cisterns are located in Pampa Zanatta, Gancedo, and Dorila Labat. Regarding these improvements, a technician from INTA in Gancedo highlights the following: "... with a pump, it's less effort to extract water from the cistern for women since they are in charge of household chores…"

- The evaluation shows that cisterns sustained water access at the household level. However, their impact in food production is limited, since the water capacity of the current cisterns is not enough for agricultural use beyond supporting small irrigation of self-consumption family crops and animals. Only two farmers generated enough irrigated agriculture to sell their crops. Other households had to buy water after cisterns became dry.
- Cisterns at the schools visited were not maintained. There is no responsible entity or funding source for their maintenance.
- The capacity of the cistern (16,000 litres) is not enough to increase farming production for commercial purposes and foster changes in the socioeconomic conditions of the families that reported benefitting from these assets. During long periods of droughts, the water stored is only sufficient for domestic use and animal consumption. The climate variability and recurrence of lengthy drought periods forced some farmers to permanently abandon their crops in spite of the presence of functioning cisterns.

Cisterns in schools:
Great benefits but lack of maintenance

Cluster 6: Gancedo. Cistern without cover or funds for maintenance. Source: Fieldwork, 2023

Schools benefit from the cisterns by improving water availability for students and staff. Both in Pampa Zanatta and Gancedo, teachers highlight the improvements they have seen in hygiene among their students and the availability of drinking water in the institutions. However, the maintenance of these cisterns (two in particular) remains in question, putting their benefits at risk. Funds from the Ministry of Education are intended only for a school's functioning, not for the maintenance of the cisterns. In addition, the school communities do not have the capability or the responsibility to maintain their cisterns. In Gancedo, the school's cistern lacks a cover, posing a danger to the children and to the water quality.

Emerging/unexpected outcomes

The cisterns have incentivized the construction of infrastructure for water harvesting as well as irrigation systems to adapt to the growing climate variability. The project's training catalyzed the construction of 68 additional cisterns built without project funds and using sources such as self-financing by households and small grants. However, these improvements do not have a direct impact on the ongoing desertification process in the area of intervention, nor do they make a strong contribution in supporting the local ecosystem to address this condition from an integrated perspective.

Evidence of resilience

- The cisterns have supplemented the water supply by adding stored rainwater to the water supply system, which also includes wells and water brought from the municipality. Cisterns allow storage of water onsite for domestic purposes and farming requirements, which is especially relevant in case of drought periods and floods.
- There is a positive impact on marginalized communities by integrating vulnerable families and indigenous communities as beneficiaries. In terms of gender, interviews indicate that women benefit from the time saved from fetching water for household purposes (see box above).
- The application of the self-construction methodology allowed for the replication of cisterns in the region using funds from different sources and programs.
- Technical experts and farmers are still linked by different lines of communication that keep them in regular contact, contributing to a continuous feedback loop beyond project closure.

Adaptation Fund impact

The cisterns withstood the impacts of several climate disturbances in the intervening years, fulfilling the intended impacts of "adaptive capacity enhanced, resilience strengthened and the vulnerability of people, livelihoods and ecosystems to climate change reduced." Despite the positive impacts observed, the cisterns only partially contribute to sufficient water access for human and animal consumption and productivity for family agricultural producers. This limitation arises from their capacity, which primarily caters to household needs and has supported agricultural production for only a few as the project intended.

- Assets and capacities were sustained among households in all six clusters. Overall, all the cisterns observed were functioning correctly, although the cisterns observed at schools had significant maintenance issues.
- When climate disturbances such as floods and droughts affected the area, the cisterns decreased the vulnerability of farmers by having stored water on site at the household or school, primarily for household consumption.
- The implementation of the project enabled the development of capacities for its replication and for the maintenance of the cisterns. It also generated new sources of employment in both construction and in training.

Lessons learned and recommendations

- *Climate risks have impacted the sustainability of the project outcome studied.* For example, the Corzuela area has been affected by both floods and droughts. The owners of the visited cisterns mentioned that they haven't been producing vegetables due to drought. Their orchard projects had been abandoned due to lack of rainfall, prioritizing water for human consumption and for the farm animals raised by the family. During one of the flood events, this cistern was lifted by the water, although it was placed back in its position without needing repairs.

  Recommendation: Develop a more comprehensive understanding of impacts, as well as for the development of integrated multi-sectoral policy measures under existing uncertainty, as climate change adaptation is a challenge that requires a comprehensive and multi-sectoral approach. Generate strategic coordination between the multiple institutions that collaborate in the development of projects aimed to foster adaptation to climate change. In addition, perform a strategic territorial assessment to evaluate potential interventions, including geospatial analysis and a water needs assessment.

- The project promoted new alliances between institutions due to the need for complementary training, after project closure, such as in water storage, water quality, and flow calculation. The implementing entity was a key supporter for advice and technical assistance for farmers. The institution also contributed in the search for new funds. The municipalities involved supported educational institutions in similar matters. The examples aforementioned demonstrate that local level institutions are relevant for sustaining capacities, making it possible to undertake new actions.

  Recommendation: Foster institutional alliances during the project's development. The involvement of multiple institutions can provide support to communities after the project closure. This support could consist of complementary funds and/or the development of other projects that continue to strengthen the capacities and impacts generated by the original project.

- The information in the Project Completion Report and Final Evaluation was not aligned with the Adaptation Fund's framework for ex post evaluations. This misalignment between the different instruments to measure the project impacts is due to the fact there was no ex post evaluation at the time that these reports were developed.

  Recommendation: Create alignment between the methodological approaches utilized by the executing agencies and by the AF. This will allow the Fund to examine and ascertain if the Final Evaluation and sustainability ratings of projects were accurate in relation to the ex post evaluation. In addition to this, the Fund could consider requiring its IEs to (1) demonstrate systematization and storage of the project information at completion; and (2) prepare information in a way that

it is usable or easily accessible at ex post, in the case that the Board requests an ex post evaluation.