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Agenda item 11

## **REPORT OF THE PORTFOLIO MONITORING MISSION IN ARGENTINA AND URUGUAY**

## INTRODUCTION

### **Context and scope of the mission**

1. As part of the Knowledge Management (KM) Strategy and the secretariat's work plan for FY15 which was approved by the Adaptation Fund Board (the Board) at its twenty-fifth meeting (Decision B.25/19), the Adaptation Fund Board secretariat (the secretariat) conducts missions to projects/programmes under implementation to collect and analyze lessons learned through its portfolio. So far, such missions have been conducted in Ecuador, Senegal, Honduras, Nicaragua and Jamaica. This report covers the FY16 portfolio monitoring mission that took place in November 2015 in the direct access projects "Enhancing the Adaptive Capacity and Increasing Resilience of Small-scale Agriculture Producers of the Northeast of Argentina" implemented by the Unidad para el Cambio Rural (UCAR), the NIE for Argentina, and "Helping Small Farmers Adapt to Climate Change" implemented by the Agencia nacional de Investigacion e innovacion (ANII), the NIE for Uruguay.
2. The mission has targeted these two projects for the following reasons:
  - a) This would help consolidate lessons on the direct access experience;
  - b) Both projects are located in similar ecosystems and address agriculture (notably livestock) -related climate risks, and plan to develop and/or strengthen mechanisms monitoring climate change variability and impacts for better decision making and planning. Among other aspects, the mission would compare institutional arrangements, environmental and social safeguards including criteria for the selection of project beneficiaries/most vulnerable communities, and level of private sector engagement.
  - c) The adaptation measures proposed in both projects. The mission would look at how these measures have been identified, the approaches taken by the two projects, the technical challenges faced as well as the steps taken to ensure the sustainability of projects' outcomes.

### **Methodology**

3. The secretariat was represented by a senior climate change specialist and a junior professional associate. The mission was carried out from 2 to 13 November 2015 in Argentina (2 to 6 November) and Uruguay (9 to 13 November), and included field visits to the projects' sites. The methodology used for the monitoring mission comprised qualitative semi-structured interviews with key stakeholders from communities, local government, non-government entities, the private sector, academia, ministries and the NIEs for Argentina and Uruguay, i.e. UCAR and ANII, respectively. In both countries, the mission combined meetings with government officials, NIEs, communities and local and national partners. The mission visited the projects' sites in the provinces of Chaco and Corrientes (Argentina) and the Basaltic Cuesta and East Hills eco-regions (Uruguay). A set of guiding questions had been prepared for the mission and shared in advance with the NIEs (see Annex 1). These questions covered the aforementioned objectives. To promote south-south cooperation and NIE cross-learning, the secretariat had invited representatives of the two NIEs to visit their counterpart's project along with the secretariat representatives. In the end, only a representative of the NIE for Argentina, i.e. UCAR (Ms. Laura Abram Alberdi), had joined the mission in Uruguay. Lessons from her mission are shared in Annex 2 of this document.

## PROJECT/PROGRAMME CONTEXT AND PROGRESS TO DATE

### Argentina

#### *Context*

4. The North Eastern region of Argentina is facing increasing climate-related challenges such as water deficit, storms, longer droughts and most important an inter-annual variability of summer precipitation. Difficult access to water resources in these areas is emphasizing these challenges. The agricultural and water sectors are among those at greatest risk, given their significant contribution to the regional country's economy. In fact, 80% of the regions' producers are small size family farmers and are highly vulnerable from economic and social standpoint.

5. The objective of the project is to increase the adaptive capacity and resilience of smallholder farmers to climate change. The activities identified in the project are drawn from the adaptation priorities that were identified by the national government, in close collaboration with different provinces. These activities contribute to further the implementation of adaptation strategies and measures to address climate change, targeting small-scale family farmers who have been identified as the most vulnerable communities in four provinces (Chaco, Corrientes, San Fe, and Santiago del Estero). A map of the country including the project locations is provided in Figure 1 below.

6. The project has three components:

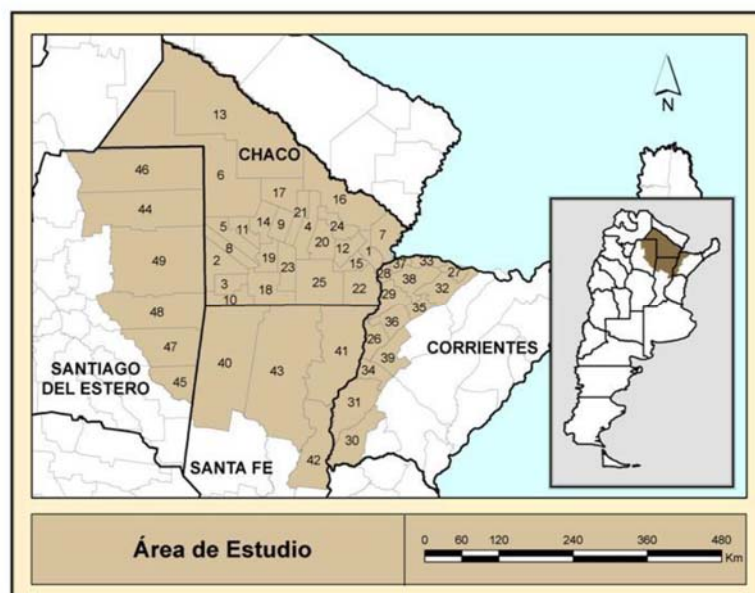
- Improvement of the adaptive capacity to climate change and its variability of small-scale producers of North-eastern Argentina;
- Strengthening of information, monitoring and climate information management systems; and
- Generation of local and regional capabilities on the impact of climate change and its variability, and implementation of adaptation measures.

7. In order to achieve this goal, an inter-institutional approach has been followed by the government of Argentina. The project is implemented by UCAR, a NIE of the AF, and is executed by the National Institute of Agriculture Technology (INTA – Instituto Nacional de Tecnología Agropecuaria), INTI (Instituto Nacional de Tecnología Industrial) and ORA (Oficina de Riesgo Agropecuario).

#### *Progress to Date*

8. The project was approved by the Adaptation Fund Board in April 2013, and the agreement was signed by UCAR in October 2013. The inception workshop was held at the headquarters of INTA, in Buenos Aires on 24 October 2013 and marked the commencement of the project implementation. The original expected duration of the project was three years; however the mission was informed by representatives of UCAR that a request for an 18-month extension of the project completion date may be submitted to the secretariat. In line with the performance-based grant financing used by the Fund, UCAR had already submitted two annual project performance reports (PPR) to the Adaptation Fund Board. To date, the Board has transferred the amount of US\$ 2,322,273 or 41% of the US\$ 5,640,000 approved for the project. The project's implementation

progress has been rated satisfactory the first reporting year and marginally satisfactory for the second year of implementation.



**Figure 1: Map of the target sites in provinces in North East Argentina**

9. The reason for the rating provided the second year was that there were delays in the implementation of activities during the 2015 period due to problems of fund availability following a budget allocation ruling from the central government. As at 30 September 2015, the following results had been achieved:

- 189 families out of the 266 targeted have benefitted from individual cisterns and roofs retrofitted for rainwater catchment.
- A feasibility study was finalized, to characterize exposure of family agricultural producers to climate risk referring to producers whose main activity is horticulture in the Provinces of Santa Fe, Corrientes and Chaco. In addition, the first meetings with companies were held that will enable to develop a Pilot Plan of risk management aimed at small horticultural producers.
- 7 new NIMBUS II automatic stations have been installed and other 8 simple stations have been converted to full meteorological stations. In addition, an agreement between institutions has been signed involving the Ministry of Production of Corrientes, the Cereal Stock Market of Entre Ríos (BOLSACER), Corrientes' Association of Rice Planters (ACPA) and the INTA for the integration of meteorological networks in the province of Corrientes.
- Training on Adaptation to Climate Change with a duration of 4 days was given in December 2014, for a total of 150 technical experts trained to date. This training included a dedicated training on Gender issues, as an introduction for the training that is being planned for 2016. In addition, training relating to the activities executed in

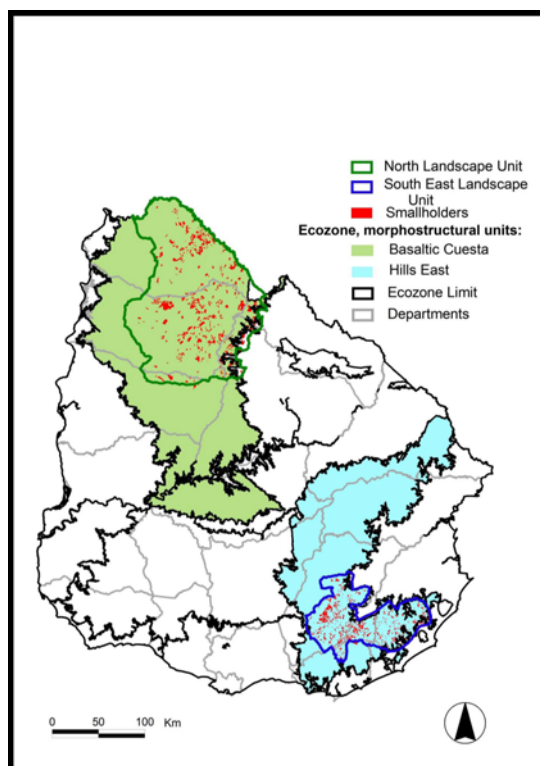
component 1 (drilling of wells, construction of cisterns, filters) and component 2 (use of climate information) has been given showing significant progress towards the training goal set for technical experts. The target communities have been also involved in the training sessions to undertake activities under component 1, i.e. drilling of wells, or construction of cisterns.

## Uruguay

### *Context*

10. The agricultural sector, considered as the backbone of Uruguay's economy, has been affected by extreme meteorological events in the past decade, with devastating effects. The most vulnerable regions to increasing droughts are the Basaltic Cuesta and the East Hills. Around 15,500 livestock farmers, 85 percent of whom are "smallholders," are located in these two regions.

11. The project seeks to support the country's capacity to adapt to climate change in different sectors of the economy. One of the main objectives is to build resilience and reduce the vulnerability of livestock producers, notably through better infrastructures for water management, improved pasture management practices, and biodiversity conservation. In parallel, the project aims at strengthening existing local institutions networks and improve the response of such institutions during droughts periods. Finally, another objective of the project is the development of a local network for climate change monitoring, awareness and response. The support provided by the project consists of partial subsidies for investments, technical assistance and training. Smallholders and organizations work hand-to-hand to identify threats and resilient management practices at the local level.



**Figure 2: Map of Basaltic Cuesta and East Hills ecoregions**

*Progress to Date*

12. The project was approved in December 2011, and the agreement was signed by ANII during the same month. The inception workshop was held on 22 October 2012 in Montevideo. The expected duration of the project is five years. In line with the performance-based grant financing used by the Fund, ANII had submitted two annual project performance reports (PPR) to the Adaptation Fund Board, for 2013 and 2014. The report for 2015 is yet to be submitted. To date, the Board has released the amount of US\$ 5,739,544 or 58% of the US\$ 9,967,678 approved for the project. The project's implementation progress was rated satisfactory for the first two reporting years of implementation. As at October 2014, the following results had been achieved:

- Of the 568 investment projects submitted from Basalto (211 submitted) and Sierra del Este (357 submitted), a total of 466 were approved, including 139 projects in Basalto and 327 in Sierra del Este. Farmers have received technical support for the preparation of their investment plans. Of the 466 projects approved, 29% were submitted by women heads of households. 59 % of the investment amount was dedicated to increase forage availability, while 35% of the investment was dedicated to water storage and availability solutions.
- The technicians of the Ministry of Agriculture (MGAP) and agricultural institutions were trained on strategic planning in the second half of 2014. An operational framework for the revolving fund was developed and the technicians supporting farmers in the formulation of projects have received a course on sustainable animal production in rangelands, in conjunction with the rangeland board. Lastly, a communications strategy was developed with private technicians and farmers.

13. At the time of the mission, 139 projects had been funded in total, benefitting 315 and 460 producers (including 301 and 437 smallholders) in Basalto Cuesta and Sierra del Este, respectively.

**MEETINGS, SITE VISITS AND FINDINGS OF THE MISSION**

14. The representatives of the secretariat met with a number of stakeholders during the week of the mission, discussing various aspects of the project implementation and execution, and undertook field visits in the provinces of Chaco and Corrientes (Argentina) and the regions of Basalto Cuesta and Sierra del Este (Uruguay) (see Figures 1 and 2 below). The agenda of the mission is provided in Annex 2 of this report. This section summarizes the findings of such visits and meetings during the two weeks of the mission.



Figure 1 : Meeting with communities in Argentina



Figure 2 : Meeting with communities in Uruguay

## Findings of the mission

### The direct access experience in Argentina and Uruguay

#### Argentina

15. The following findings were made following discussions with the NIE for Argentina, i.e. UCAR and the project stakeholders, including the executing entities, representatives of the government, and communities.

- UCAR was accredited by the Fund in March 2012. The AF Board has approved a project in April 2013. This is the first Direct Access experience for UCAR, which coordinates this project in close collaboration with other executing government agencies. This is also the first time that UCAR is managing a project with an implementing entity role and not as an executing entity for the government or international donors.
- UCAR reiterated its satisfaction to work with the Fund as a NIE, and confirmed that the accreditation process had yielded positive changes within the institution, improving the efficiency and effectiveness of some of the institution's procedures and processes. The pioneering aspect of the AF project has also helped putting a spotlight on the institution and has helped it gaining further recognitions, both within the institution itself, but also nationally and internationally. An illustration of such side benefits at the national level is the on-going collaboration between some UCAR divisions and SAYDS (Secretaría de Ambiente y Desarrollo Sustentable) regarding how can the institutions mainstream this thematic of climate change adaptation in their activities. The entity has learned a lot from the direct access project on the topic of adaptation to climate change. For instance, the unit implementing the project within UCAR has been recently trusted to integrate climate change dimension within a small grants programme implemented by UCAR and funded by external donors. Thanks to its experience with the Adaptation Fund, UCAR was designated as a NIE candidate for the Green Climate Fund.
- Compared to other national institutions, UCAR has outlined that as a NIE of the Adaptation Fund, it is allowed to receive external funds without any specific government decree of acceptance of the donation. At the opposite, if another national institution would

receive funding from a multilateral financial institution, the government would need to issue a decree before the funds are made available to the national institution. As a result, UCAR gained more flexibility and was able to start implementation in a faster and smoother way than other national institutions receiving funding from multilateral financial institutions.

- Despite having faced some initial challenges, the coordination between institutions, notably between UCAR and the project executing entities (INTA and ORA), is considered highly valuable, allowing a smooth and effective implementation of the activities on the ground.
- Representatives of the national and regional governments, including the Ministry of Agriculture and the Designated Authority for Argentina outlined the strategic importance of this project, valuing the fact that it is the first climate change adaptation project that delivers tangible and visible outputs to the most vulnerable communities and agricultural producers who are under increasing water management and food security related stresses. All of the local and national officials interviewed during the mission have highlighted as an important benefit the fact that the implementing entity of the project was a national institution and therefore the proximity and similar culture and procedures have helped address many issues that would have been more challenging to address otherwise. The AF project, from UCAR's perspective, represents a key part of the pro-poor development strategy of the national and local governments in the four provinces that have been selected.
- From an executing entity's perspective, the international dimension and buy-in of this project has supported and strengthened INTA's work in the field of climate change. INTA has recognized that it is now in a position to use further of its research capacity and strengthened its local actions in the field of climate change adaptation, although its regional teams need a better access to innovative and concrete tools, and more tutoring and capacity to implement the activities in a more effective manner. INTA has also acknowledged that the AF project had allowed to put in place a national framework for the coordination of climate change across different institutions, which did not exist before. Finally, INTA has acknowledged that the topic of climate change, and more specifically adaptation to climate change has been included in the national agenda in Argentina.

### Uruguay

16. The following findings on the direct access experience in Uruguay were made from the meetings of the mission with ANII and its partners from government bodies and multilateral institutions, civil society organizations and private sector organizations:

- Before its accreditation with the AF, ANII was already a strong institution, with high fiduciary standards developed following the same standards as the Inter-American Development Bank (IDB). Therefore, the institution did not find much difficulty in getting accredited. Partners visited by the mission have praised ANII's standards, including its high level of transparency and safeguards, and have decided to use those national standards in the implementation of the projects they have with ANII;
- ANII is the lead agency in charge of promoting innovation and technology in Uruguay and has been presented as a model in the region. However the low level of in-house expertise



in the sectors covered by the climate adaptation issues in Uruguay, including agriculture, livestock and water management, could be seen as a challenge. This is particularly relevant for the supervision role that should be taken by an implementing entity for a project, including periodic visits to the project sites and a general knowledge of the issues covered by the project. On a positive note, ANII had just recruited an expert in agronomy, who is going to take over the role of the NIE focal point for the project, when the current incumbent retires in the first trimester of 2016;

- The executing entity, MGAP, has demonstrated ownership of the process, taking the lead in the execution of the project, with its full integration in the national strategy for family livestock and the impact monitoring framework being developed at the Ministry. The mission found that the project management unit was staffed with very knowledgeable people and that this unit was working in synergy with the other departments of the ministry, including the Department for Rural Development, to make sure that this project, the other project it is executing with the World Bank, and any other donor-funded projects that it will implement in the future, are fully integrated in the national strategies being implemented in the Ministry;
- There is a synergy of actions at the government and local levels, to ensure that the adaptation priorities will be addressed under the national climate change strategic framework and the sectoral policies, particularly the national livestock management policy and strategy, and the local rural development platforms. The accreditation of ANII as the NIE of the AF for Uruguay and the establishment of a National Designated Authority for the Green Climate Fund (GCF) and future designation of NIE(s) for that Fund, fall within the national strategy to tackle climate change.

### The approach to adaptation in smallholder agricultural sector

#### Argentina

17. With 47 experiment stations, 260 extension units and 15 research institutes, INTA is the technical body in charge of the generation, adaptation and diffusion of technologies for the agricultural sector in Argentina which accounts for 9% of the country's gross domestic product (GDP). With its widespread network of extension services, the institution has tailored its support to a range of clients, from big private sector agricultural producers and agro-industrial groups to small farmers, providing them with a range of technologies, from the most sophisticated to the simple ones, knowledge and learning procedures in the agricultural sector. This presence on the ground has allowed the institution to be able to identify the needs of its main stakeholders and clients, which has helped in the identification of beneficiaries of programmes implemented by the government or through external donors. In the particular case of the 14,000 small farmers in the country, the government has in the last ten years developed a strategy for that category of producers, recognizing their particular vulnerability and lack of means and capacity. A framework has been developed, with an active involvement of INTA, INTI and ORA, to provide small farmers with a package of support, from capacity building to equipment, technology and financial instruments. The system is working in such a way that beneficiaries do not necessarily have an information of which donor has helped in financing which part of the package of support they are receiving.

18. With increased awareness of climate threats and risks for the agricultural sector, an emphasis has been made in providing small farmers with weather and climate information, which are currently only available to bigger producers and agro-industrial companies, which have developed their own

networks of information and mitigation measures. In the case of the UCAR project, it has greatly benefitted from the extensive local presence and network of INTA offices to facilitate the implementation of the activities and collaboration with the local communities.

19. Apart from the direct access project implemented by UCAR, the World Bank (WB) is also implementing an Adaptation Fund project in Argentina. In both UCAR and WB projects, the government of Argentina is tackling the identified issues by focusing on building trusts and relationships with vulnerable smallholder producers' communities and has designed the projects' activities according to the views and interests of these agricultural populations. In that sense, it is reasonable to think that the flexibility of the AF procedures regarding the design and implementation of projects has allowed such approaches to take place. Many stakeholders interviewed during the mission have recognized that the AF project has helped spreading a better understanding of climate change impacts and adaptation activities across local institutions and local communities and had helped increasing the awareness on climate change adaptation of EEs, municipalities and other stakeholders involved in the project.

20. Water management and food security have been identified as the most critical climate change adaptation related issues in Argentina. The UCAR project was designed to catalyze a synergy between i) the delivery of concrete water catchment, harvesting and storage, for domestic and agricultural use, and the installation of agro-meteorological stations and early warning systems in communities that have been identified as the most vulnerable countrywide who are currently lacking such systems and who historically have not been prioritized by the government. A strong emphasis was also put on the familial aspect of those smallholders subsistence producers who are not only vulnerable to climate change impacts, but to various non-climatic factors as well. Another advantage that was noted was that the activities implemented in the framework of the AF project were raising the awareness of the vulnerable farmers to climate change impacts, and that not only concrete activities benefiting vulnerable farmers were being delivered on the short term to the communities, but that a key achievement of the AF project was also that it "strengthens the dignity of rural communities".

21. However, adaptation planning is currently developing in Argentina and the central government is in discussions with partner multilateral agencies to enter into the process of a National Adaptation Plan (NAP) for Argentina. Local governments have also acknowledged that adaptation to climate change has not been integrated in local development policies and strategies so far. There is no adaptation plan or strategy at the level of the provinces. The networks of agrometeorological stations are therefore not currently used as decision making tools by local governments to identify and prioritize adaptation actions. It is therefore a challenge for UCAR and the executing entities to promote the integration of adaptation planning in the decision-making process of local political stakeholders, which will be a key determinant of the project's outcomes sustainability. A very thin line has also been drawn between basic services that are needed with or without climate change and adaptation solutions in the water and health sectors, which makes it sometimes difficult to account for adaptation benefits of this project.

### Uruguay

22. The agricultural sector plays a key role in the country's economy, especially its exports products, representing two thirds of exports including primary and processed products.

Smallholders<sup>1</sup> represent 62% of the 450,000 livestock farmers, or nearly two thirds, with more than half of them engaged in extensive livestock production with low productivity levels, covering two thirds of the natural areas. Climate change and variability, the characteristics of Uruguayan soil (mostly basaltic, superficial soil), along with the persistence of a very traditional system of livestock management that was not taking into account the most up-to-date management techniques in extensive and semi-extensive livestock production, are responsible for the low productivity observed. In a system highly dependent on weather for water and fodder availability, extreme events such as the drought which occurred in 2011 had caused a loss of revenues of US\$ 100 million in the sector.

23. The academic and research community, technicians from government agencies and farmers, are aware of the existing potential for significantly increasing the current level of productivity and efficiency while improving the resilience of rangelands to climate risks. This is done through improved livestock management techniques that help increase the carrying capacity of those lands, and investments at the farm level for upgraded infrastructures tailored to address climate threats, such as drought and flood, and unsustainable land use. Through the AF project, the “Development and Climate Change Adaptation” (DAC) project implemented by the World Bank or the “Rural Productive Development Program” implemented by the IDB, the MGAP has collaborated with a number of agencies to provide investment packages to smallholders, develop productivity models and decision making tools in livestock systems. A World Bank index pondering the activities with their capacity to address climate change issues was applied to the AF project interventions, showing that the DAC and AF investments, capacity building activities and other activities have a high level of integration of adaptation issues (at least 80%).

24. However, climate data for decision-making at the farm level are still lacking. Farmers are usually aware of long-term trends such as El Nino and La Nina expected effects on their natural rangelands; however they are not well equipped or do not benefit from climate information at the local level. The MGAP, in collaboration with the National Meteorological Institute and in coordination with INIA (National Institute of Agricultural Innovation) and IPA (Agricultural Planning Institute), is developing through the AF project a network of agro-ecological monitoring, but it is unclear if the existing network of agrometeorological stations covers all the territory and if it will be integrated in that system. A model of an Extensive Stock Breeding Farm (MEGanE) representing an extensive breeder cattle farm on a representative basaltic soil was developed by IPA. Among different variables, MEGanE is able to reproduce a known drought crisis. The model will be integrated in a farm-level management system to help farmers improve their productivity. However, as stated above, it is unclear which climate information will be provided in the system.

25. One of the advantages of the strategy of MGAP is the decision to centralize of all livestock-related, donor- or government-funded initiatives and projects at the level of the Ministry. This allows integrating any new funding in the existing framework for supporting smallholder cattle farming in Uruguay. With potential beneficiaries of investment packages already identified, any new funding request will find a baseline already established. To ensure that the impact of these investments and

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<sup>1</sup>The Ministry of Livestock, Agriculture and Fisheries defines Smallholder as a farmer that complies with the following: a) having no more than 2 permanent workers or its temporary equivalent; b) farming no more than 500 ha CONEAT Index 100 (average soil productivity) regardless of the type of land tenure; c) being the farm the main source of income and being the farm the main workplace for the farmer; and, d) dwelling in the farm or in a village no further than 50 km from the farm.

more generally the sectoral policies will be measured adequately, MGAP is developing a monitoring system with carefully locally-selected indicators.

26. Extension services are provided through the Rural Development unit within MGAP, with 31 teams in the different regions of the country, and 68 technicians deployed. They support institutions and local governments in 40 rural development platforms across the country, which also include more than 500 civil society organizations and groups of producers. Such local platforms are used to discuss policies, identify projects at the local level, and articulate interactions among stakeholders. Projects to be funded through the different sources coordinated by MGAP are identified and requested for through the rural development platforms. All investment projects have a technical assistance component and are demand-driven. Through the AF project for instance, at least 700 and 640 farmers are expected to be supported, through projects submitted by individual farmers, producer groups or organizations, in Basalto Cuesta and Sierra del Este, respectively. To ensure the sustainability of the investments, organizations within the platforms, with support from the government, are piloting weather-based index insurances schemes and revolving funds, with funding provided in parts with donor funds including the AF project.

27. In order to measure the efficiency of its programs and starting with the AF and DAC projects, MGAP has defined a baseline, taking into account the beneficiaries of those projects and a group of non-beneficiaries (the control group) who have never received support from the MGAP. The rationale was that the beneficiaries and controls were similar in a number of factors, and that the impact of the programs could be measured against the control group, based on an agreed set of indicators. However, once the programs started and a set of indicators related to the specialization of the farmers (i.e. cattle or sheep, breeding or fattening), technologies and infrastructures available at the farm, and adaptation to climate variability were established, a number of inconsistencies between the two groups were identified. In some cases, it even appeared that the control group presented more vulnerability than the beneficiaries, raising the issue of the identification of project beneficiaries during its design. The MGAP is aware of this issue and is working towards addressing it, learning from the experience of the AF project.

28. The issue of the involvement of the private sector in this project seems to be closely linked with the selection criteria of the beneficiaries. Smallholder cattle farmers are managing properties of up to 500 hectares and although all farmers gaining revenues from their farms could be considered as members of the private sector, the approach of the government towards those with a high level of vulnerability and low level of incomes, is different. In the government programs, either through national or donor-funded sources, all supported farmers have to provide a co-financing of 15 to 20% of the total funding. The categorization of farmers as private sector entities or designation as beneficiaries/control could be based on a set of indicators carefully developed by MGAP, including the level of income and vulnerability to climate variability of the target groups.

#### Technological and financial innovations identified in the two projects

##### Argentina

29. The UCAR project is the first climate change adaptation project of its kind in the country. A major technological innovation in the project is the installation of locally-assembled weather stations funded by the AF project in areas where no public stations are installed yet. As a result, the project relies on national capacity, mainly through INTA and INTI, to assemble and install the weather stations, in close partnership with a national university.

30. On the other hand, the data collected by the weather stations will be communicated either by mobile phone, internet, or satellite, depending on the model of the station, and will be shared as per an agreement that has been signed between relevant regional and national institutions.

31. The project has indirectly catalyzed the cooperation between INTA and INTI and has opened further opportunities for interdisciplinary and innovative work between the two institutions. As a result of these institutional exchanges, innovation has been generated from such scientific collaboration but most importantly from the tacit knowledge of local farmers. This has allowed new technologies and applications to be tested. This includes the introduction of an affordable Brazilian technology for the construction of cisterns, for which the project beneficiaries have been trained and provided with construction kits.



*Figure 3 : Example of a household-level water harvesting technology built by beneficiaries in Argentina*

32. To ensure the financial sustainability of its expected outcomes, the project has also introduced in one of the communities it is supporting the creation of a microcredit program. The Agricultural Risk Office (ORA) is also developing a weather based index insurance for the horticultural sector through this project. Such insurance is not new in the country, but this will be the first time it will target small farmers. A feasibility study is ongoing, with the involvement of local insurance companies. The densification of the network of meteorological stations in the project areas will help in better defining suitable climate indexes.

### Uruguay

33. To improve the resilience of rangelands to climate risks, the project is promoting the adoption of appropriate land management techniques that will help ensuring the availability of fodder for longer periods in drought-prone areas, increasing water storage and retention capacity in productive lands, and other water solutions. It also promotes improved livestock management techniques to help increase the carrying capacity of those lands. A list of techniques and solutions promoted through the project is presented in Table 1 below.

**Table 1: water and rangeland management techniques and solutions promoted through the AF project in Uruguay**

| <b>Water Solutions</b>  | <b>Field management</b>   |
|---|---|
| <ul style="list-style-type: none"> <li>• Groundwater delivery,</li> <li>• Footslope water retention,</li> <li>• Reservoirs,</li> <li>• Pumping equipment,</li> <li>• Mills,</li> <li>• Drinking and distribution,</li> <li>• Repair of existing water source,</li> <li>• Embankments,</li> <li>• Rainwater tanks and troughs,</li> <li>• Irrigation.</li> </ul> | <ul style="list-style-type: none"> <li>• Carrying capacity adjustment,</li> <li>• Management of herbage allowance,</li> <li>• Deferral of fodder,</li> <li>• In-paddock grazing,</li> <li>• Natural field fertilization,</li> <li>• Incorporation of beneficial species to the grass mat,</li> <li>• Incorporation of Silvopasture,</li> <li>• Weed and exotic plants management,</li> <li>• Pasture's height management,</li> <li>• Improvement of natural field and fodder reserves,</li> <li>• Changes to grazing system,</li> <li>• Restoration of areas adjacent to watercourses,</li> <li>• Shade and shelter.</li> </ul> |

34. In a country with around three million people and more than 10 million hectares of natural grassland available for pasture, farmers have long maintained a traditional system of extensive cattle management. From the projects piloted in country, it appears clearly that very low cost technologies and practices can significantly increase the existing productivity level. From the use of paddocks to deferral of fodder, or the establishment of a rational grazing system which would guide cattle along fences within an area of 30 hectares, a number of technologies are being applied for the first time in some areas, which in itself seems surprising given the low cost of these widely known options, and are already showing results.

35. Two financial mechanisms that would help farmers increase their adaptive capacity and invest in resilient infrastructures and management practices without always relying on external funding are being tested:

- Revolving funds: the AF project is supporting organizations and groups of producers by providing technical assistance and seed funding for the establishment of such funds. Through the AF project 27 producer organizations have received support to create revolving funds; this includes the producers agreeing to set aside part of the funding they received through the project, the development of a guideline for the establishment and management of revolving funds, and training of those organizations. Such funds are currently supporting pastures improvement, development of wells, improvement of livestock techniques, among others;



Figure 4 : Visit of a community implementing a revolving fund in Uruguay

- Index-based drought insurance:** the MGAP, through this project and support from the World Bank, is developing an index-based insurance that will use the Normalized Difference Vegetation Index (NDVI), which is an index of plant “greenness” or photosynthetic activity, and is one of the most commonly used vegetation indices, calculated through analysis of satellite pictures. Stakeholders will agree on a threshold following which participants will be paid out, based on the evolution of the index which indirectly determines the level of water stress of biomass in the selected areas. A pilot group of 16 producers organized as a group have signed the policy, with the partner identified by the Ministry, the State Insurance Bank. To ensure that this pilot could be replicated if successful, a number of private insurance companies have been involved in the development of the index. INIA was designated as the technical partner, responsible for assessing when the threshold is reached, during drought periods in the country. This is the first experience of index-based insurance in the livestock sector. Such insurance already exist in the agricultural and horticultural sectors.

36. The MGAP is developing for the AF project a monitoring system which will include indicators that were not identified when the project document was approved. A set of measurable indicators were developed, including indicators aiming at assessing the level of reduction of vulnerability throughout the project implementation and beyond. Such system will be implemented internally and it is the intention of MGAP to develop a comprehensive system that will help monitor the results and impacts of all the projects it will implement in the future. The system was designed to monitor the results, consequences and impacts of the policy measures implemented by MGAP and affiliated government agencies, and the efficiency of the use of public resources. It will allow the evaluation unit of MGAP to suggest improvements, new designs and formulations of policy instruments, in order to achieve more efficiently the desired strategic objectives of the Ministry.

**Table 2: indicators developed by MGAP for monitoring of the impact of livestock agriculture in Uruguay**

| Results indicators developed by MGAP | Indicators of characterization and contextual CHARACTERIZATION |
|--------------------------------------|--|
|                                      |  |

|  |  |
|--|--|
| <ol style="list-style-type: none"> <li>1. Resilience Indicator: magnitude of the decline in productivity after an episode of local water deficit / speed of productivity recovery to previous levels</li> <li>2. Incorporation of best practices: % of producers incorporating good herd and natural field management practices</li> <li>3. Productivity (kg meat / ha / year)</li> <li>4. Reproductive Vaccine Efficiency: % weaning</li> <li>5. Organizational adaptive capacity: the capacity of groups and organizations to make available agro-climatic information and to respond to extreme events</li> <li>6. Individual adaptive capacity: perception of capacity for individual response to drought from producers</li> <li>7. Use of agro-climatic information</li> </ol> | <ol style="list-style-type: none"> <li>8. Geographical location (Department, Landscape Unit)</li> <li>9. Producer's socioeconomic variables (age, education)</li> <li>10. Technical assistance prior to the program</li> <li>11. Orientation of production (breeder, extensive, full cycle);</li> <li>12. Land use (permanent improvements, natural field, grasslands, fertilized fields, etc.)</li> <li>13. System of land tenure and size</li> <li>14. Composition and size of the ranch</li> <li>15. Stocking Density (Livestock Units per hectare)</li> <li>16. Participation in previous MGAP programs (institutional proximity)</li> <li>17. Variables of infrastructure of the property</li> </ol> <p><b>CONTEXTUAL</b></p> <ol style="list-style-type: none"> <li>18. Normalized green index</li> <li>19. Water welfare index</li> </ol> |
|--|--|

## Lessons learned

In alignment with the recent results of the 1st phase of the Fund's evaluation, the UCAR and ANII projects further highlights the fact that the Fund delivers on its mandate to fund concrete, visible and tangible climate change adaptation activities.

### Direct access

37. Even though the design and implementation of an adaptation project/programme involving different institutions is challenging for both the Implementing Entity and the Executing Entities, such project/programme bear a unique potential in delivering effective and concrete adaptation impacts on the ground. The dynamism and innovative aspects of the implementing entity appeared as key elements in UCAR's success in setting-up an efficient coordination mechanism.







*Figure 5: Examples of concrete adaptation activities being delivered by direct access projects in Argentina and Uruguay*

38. In parallel, it should be kept in mind that a learning curve is necessary for an institution to fully understand and take ownership of its role of implementing entity as the Fund defines it, and have a complete understanding of the AF-related procedures. This is especially true as this is the very first AF project of the implementing entity.

39. Although UCAR and ANII are NIEs that have very different mandates, structures and ways to operate and supervise executing entities, the latter are delivering ground-level adaptation actions effectively. This finding outlines the importance of the country-driven process, as observed in other direct access projects<sup>2</sup>.

40. As in the case of previously visited direct access projects<sup>3</sup>, it has also been observed that the country-driven dynamics of integration of adaptation to climate change in the sectors targeted by the projects have elevated the agenda of adaptation at the institutional and national levels as never before.

41. The experience in Uruguay shows that having a strong executing entity with a clear strategy and policies for the sector targeted by the adaptation project facilitates the supervision role of implementing entities.

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<sup>2</sup> See reports of previous portfolio monitoring missions to Senegal ([http://www.adaptation-fund.org/wp-content/uploads/2015/01/AFB.EFC\\_.10.5.Report\\_of\\_the\\_Learning\\_Mission\\_to\\_Senegal.pdf](http://www.adaptation-fund.org/wp-content/uploads/2015/01/AFB.EFC_.10.5.Report_of_the_Learning_Mission_to_Senegal.pdf)) and Jamaica ([http://www.adaptation-fund.org/wp-content/uploads/2015/01/AFB.EFC\\_.15.4.Rev\\_.1%20Report%20of%20the%20Portfolio%20Monitoring%20Mission%20to%20Jamaica\\_draft.pdf](http://www.adaptation-fund.org/wp-content/uploads/2015/01/AFB.EFC_.15.4.Rev_.1%20Report%20of%20the%20Portfolio%20Monitoring%20Mission%20to%20Jamaica_draft.pdf)). Also, see Masullo, I., G. Larsen, L. Brown, and L. Dougherty-Choux. 2015. "Direct Access' to Climate Finance: Lessons Learned by National Institutions." Working Paper. Washington, DC: World Resources Institute. Available online at <http://www.wri.org/publication/direct-access>.

<sup>3</sup> Ibid.

### **The approach to adaptation in smallholder agricultural sector**

42. Non-climatic economic and social factors, on top of climate change have to be taken into account during the design and implementation of an adaptation project as they can represent a substantial additional threat for the most vulnerable communities. Investments to be made to increase the adaptive capacities of the most vulnerable should not be jeopardized by the lack of investments to cover basic development needs.

43. Lessons from the two projects show that groups defined as “small farmers” are heterogeneous, differing in several factors, including their property size, assets owned, or access to government programs, from basic services such as access to water and sanitation, to access to market and climate information. Consequently, some small farmers are more vulnerable than other and targeted support is needed for the different categories within the group. Therefore, it is important that public strategies towards small farmers take the time to establish an accurate baseline and categorization of its target beneficiaries. This will also help in the categorization of some small farmers as “private sector” based on defined indicators – i.e. access to market, revenues from the production or number of employees in the property – and will affect the level of co-financing to be requested from the different categories of beneficiaries from public programs.

44. The approaches to providing technical support to small farmers can be flexible, tailored to national circumstances, as observed in the case of the two projects, with the one in Argentina relying on a strong network of extensive services, through INTA, and the one in Uruguay favoring the use of private technicians in support of the work of the regional services. This is especially true when there is a clear strategical framework at the sector level, which allows for the development of a baseline including the identification of target beneficiaries and their relevant needs and challenges, the design of criteria and approach to supporting each category of stakeholders and the design of the most adequate tools, mechanisms and monitoring system, to ensure a successful support.

45. Also, while both INTA and MGAP are coordinating the provision of a package of support to small farmers, the approaches are different, with in the case of Argentina support that is providing in a more ad hoc basis, depending on the programmes and opportunities available, while in the case of Uruguay programmes have been designed to integrate individual packages of support for each beneficiary farmer. Both approaches remain valid, with more room for adaptive management in the case of Argentina, and increased opportunity for planning in the case of Uruguay.

46. It is important to integrate the climate dimension at the early stages of sectoral planning, identifying the climate risks, and taking the necessary steps in providing the adequate level of climate information to the different categories of decision makers, at the institutional, local government, sectoral and farmers’ levels. This includes strengthening the networks of agrometeorological stations and developing early warning systems. This would help in efficiently developing climate-smart small farming systems, but also dissociating and addressing non-climatic factors in a more informed manner.

### **Technological and financial innovations identified in the two projects**

47. Inter-institutional collaboration and involvement of the scientific community has allowed in both projects the creation of bridges between technical, social, economic and ecological aspects of agricultural and livestock management. This has fostered innovation, from the adaptation of low-

cost water retention and forage management techniques, to assembling sophisticated weather stations, developing agro-economic models to support sound agro-ecosystem management, and promoting innovative programs targeting the youth in order to spark interest in farm management.

48. Revolving funds can help in the maintenance of water retention infrastructures and other investments made at the farm level through the projects, however without climate-related decision making tools, continuing technical assistance and adequate awareness raising on projected climate risks, there is a risk that such funds could be invested in infrastructure or land management techniques that are not climate-proofed.

49. The cross-learning experience piloted through this mission, with a member of the NIE for Argentina accompanying the mission to learn from the experience of Uruguay, has been very positive and must be encouraged. This constitutes a very good opportunity to learn, build relationships and compare experiences. This is a good example of South-South cooperation which could potentially catalyze technology transfer. It is also in line with the criterion for allocation of resources outlined in the Strategic Priorities, Policies and Guidelines of the Adaptation Fund, adopted by the CMP, of “Securing regional co-benefits to the extent possible, where applicable”.



*Figure 6 : A representative of UCAR (Argentina NIE) discussing with AF beneficiaries in Uruguay*

### Annex 1: Key questions

A set of questions was prepared for the objectives of the mission, which were applied for the mission.

| <b>Key guiding questions in the targeted learning plan</b>   |  |
|--|--|
| <b>Mission objectives</b>  | <b>Key questions for the mission</b>   |
| <p><u>Objective 1</u>: to collect lessons learned from the direct access experience, at different levels:</p> <ul style="list-style-type: none"> <li>• At the NIE level: on the role of direct access in catalyzing transformational change, i.e. in terms of internal procedures, institutional structure, visibility etc.</li> <li>• At the stakeholder level (partner EEs, CSOs, communities, private sector) , on the impact of direct access in enhancing the level of involvement, awareness, and ownership of climate change adaptation and risk reduction processes, and the impact of direct access on the adaptive capacity of these stakeholders;</li> <li>• At the government level, on: <ul style="list-style-type: none"> <li>○ the impact of direct access on the level of ownership and opportunities for developing scaling up strategies;</li> <li>○ in the particular case of Argentina, the lessons learned from the two modalities through which</li> </ul> </li> </ul> | <ol style="list-style-type: none"> <li>1) What are the capacities that the NIEs have built during the accreditation process? Which of the 3 main competencies required as fiduciary standards by the AF was (were) the weakest and how has it (they) improved: <ol style="list-style-type: none"> <li>a. During the accreditation process?</li> <li>b. During the project implementation?</li> </ol> </li> <li>2) What are the post-accreditation specific capabilities that the NIEs has been able to build during project implementation?</li> <li>3) How did the accreditation and project implementation experience change the way the NIEs are now operating? (e.g. did this help in improving the NIEs' fundraising capacity? Did the NIEs improve their revenues as a result? Did this improve the NIEs' visibility at the national level?).</li> <li>4) For both countries, what is the bilateral/multilateral partners' perception of the direct access experience of the NIE in the country? Are they aware of it? Are they following it?</li> <li>5) What capacities (institutional, technical, financial...) have been or are expected to be built within the country as a consequence of the direct access experience? Would these capacities be built equally if the programme was implemented by a multilateral entity?</li> <li>6) Which stakeholders have benefitted or are expected to benefit the most from this capacity building exercise through Direct Access? <ol style="list-style-type: none"> <li>a. Direct executing partners?</li> <li>b. Beneficiaries (smallholders, private sector, local governments)?</li> </ol> </li> </ol> |

|   |  |
|---|--|
| <p>AF projects are implemented in the country, i.e. multilateral and direct accesses.</p>   | <p>c. Indirect stakeholders (other ministries, agencies, municipalities, private sector...)?</p> <p>7) What is the perception, at the government level, of the NIE accreditation to the Fund? Is it seen as an opportunity? Are there plans for replicating the NIE experience with other entities, including in the context of the GCF? Have there been interactions with governments of other countries regarding the experience of the NIE?</p> <p>8) Were there any added value or challenges faced by the direct access project compared with the MIE-implemented project in Argentina?</p> <p>9) Are there new initiatives developed/funded as a direct consequence of the project?</p> <p>10) What is the level of ownership within the government of the NIE implemented project? Was this ownership enhanced by the direct access modality of implementation? Is there any replication or scaling up strategy under development or implementation? If yes, how did the direct access provide added value in developing this strategy?</p> |
| <p><u>Objective 2</u>: to collect information on strategies for adapting livestock systems to climate change, and developing/strengthening climate change monitoring systems, with the focus on vulnerable small farmers in in the southern America region, looking more particularly at the following aspects:</p> <ul style="list-style-type: none"> <li>• What was the rationale for the selection of the adaptation solutions proposed to address climate change livestock-related risks, and the development and/or improvements of climate change monitoring mechanisms;</li> </ul> | <p>1) Do you consider the solutions proposed by the project to address the identified climate risks still adequate? If not, please specify what changed since project design.</p> <p>2) Have there been additional activities included in the project since it has been approved, and that were not initially planned? What is the rationale for such addition?</p> <p>3) What is the current level of buy-in by the beneficiaries?</p> <p>4) Were the proposed adaptation measures selected based on the best available practices? Based on which references?</p> <p>5) What is the value-added or effectiveness of a strong “soft measures” (i.e. capacity building/policies/institutional arrangements) component in adaptation projects dealing with livestock and CC monitoring mechanisms systems?</p>   |

|   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• How is the enabling environment being fostered to help smallholders adapt to climate change;</li> <li>• With the current level of uncertainty, what is the decision-making process leading to investment, or not, in adaptation measures; what are the relevant institutional arrangements and level of information available;</li> <li>• Which steps are taken to ensure the sustainability of the projects' outcomes.</li> </ul>   | <ol style="list-style-type: none"> <li>6) What is the level of awareness of adaptation issues, more particularly in the livestock sector, within the government institutions and the public in general, through this project?</li> <li>7) What is the current or expected impact of the project in livestock systems and policies, and CC monitoring mechanisms?</li> <li>8) How is the project addressing anthropogenic pressures or non-climatic factors that may exacerbate the climate-related risks and vulnerabilities?</li> <li>9) How innovative are the adaptation measures promoted by the project for the country?</li> <li>10) What is the level of ownership, at the Ministry and at cross-ministerial level towards the project? Is there any replication or scaling up strategy under development?</li> </ol>  |
| <p><u>Objective 3</u>: to have a better understanding of the challenges (and opportunities) to engage with and involve the private sector (i.e. farmers with more substantial revenues than the main project beneficiaries), including through:</p> <ul style="list-style-type: none"> <li>• An overview of the level of involvement of those stakeholders in the identification of the projects' activities and related adaptation options;</li> <li>• Assessing the level of awareness of those stakeholders of the projects' activities;</li> <li>• Assessing capacity building efforts towards the private sector for their increased understanding of climate risks and adaptation solutions to address those risks, including making the</li> </ul> | <ol style="list-style-type: none"> <li>1) What is the level of understanding by the private sector stakeholders of climate change issues and more particularly the climate risks identified in the projects and their potential impacts on those stakeholders' economic activities?</li> <li>2) Prior to programme start, what was the level of engagement of those stakeholders in addressing flood and drought risks?</li> <li>3) What was the level of involvement of those stakeholders during the identification of the projects activities and related adaptation options?</li> <li>4) What is the current level of engagement of the projects towards those stakeholders? Please describe any challenges or opportunities encountered.</li> <li>5) At the national level, were there any efforts made towards involving the private sector in addressing the climate change agenda in general and more particularly adaptation? Is there any relevant policy, law or strategy to support such efforts?</li> <li>6) Are you aware of any study at the national/sector level on the economics of adaptation? If yes, what is the level of awareness of the private sector on the results of such study?</li> </ol> |

|  |   |
|--|---|
| <p>business case on the cost effectiveness of immediately addressing climate risks;</p> <ul style="list-style-type: none"> <li>Assessing existing or planned strategies to reach out to the private sector.</li> </ul>   |   |
| <p><u>Objective 4</u>: to collect information on the management of environmental and social risks at the national, institutional and project level, particularly:</p> <ul style="list-style-type: none"> <li>An overview of existing national environmental and social regulations that are relevant to the projects and an assessment of how the projects are complying with them;</li> <li>The selection criteria for the smallholder beneficiaries and grievance mechanisms put in place;</li> <li>The level of readiness (and related capacity building needs) of UCAR and ANII to effectively implement the Environmental and Social Policy of the Fund.</li> </ul> | <ol style="list-style-type: none"> <li>1) What is the current capacity of ANII and UCAR to manage environmental and social risks? Please describe the relevant unit(s) involved, the relevant policies and procedures in place at the institutional level and/or their linkage with the national policies and procedures;</li> <li>2) During the design of the AF project, how were those policies and procedures applied and what were the challenges faced?</li> <li>3) Did the institution make any change to its normal procedures on environmental and social safeguards to accommodate with the AF project during its preparation and/or during its implementation?</li> <li>4) How did the project ensure gender inclusion? Was there any constraint in its implementation?</li> <li>5) How is the project dealing with land tenure and indigenous peoples issues?</li> <li>6) How did the project select its beneficiaries? What process did you follow to make sure they were the most vulnerable communities? Who was involved in the decision making process? Is there any grievance mechanism put in place?</li> <li>7) What are the challenges faced in managing the environmental and social risks identified by the project? Were there mitigation measures developed in relation to those risks during the project preparation phase? Were those mitigation measures adequate when the identified risks arose, if any?</li> </ol> |

## **Annex 2: Report of the mission from UCAR (Argentina) to visit the project in Uruguay**

### **I. Introduction**

The Adaptation Fund promotes exchanges between officials of the National Implementing Entities with the aim of strengthening Institutional capacities of the countries. Thus, taking advantage of the visit of Daouda Ndiaye and Hugo Remaury, officials from the Adaptation Fund Board secretariat conducting cross learning missions in Argentina and Uruguay, Laura Abram Alberdi, of UCAR, the NIE for Argentina, joined the tour of the Uruguayan project "Building resilience to climate change and variability in small vulnerable farmers" implemented by ANII during the days 11, 12 and 13 November 2015.

### **II. The Visit**

This tour included two bioregions covering the Uruguayan project in Basalt Cuesta and Eastern Sierras. The beneficiaries of the project are farmers settled in areas of low agricultural aptitude and sharing issues of soil erosion and limitations on their access to water.

#### ➤ **Eastern Sierras**

Visited livestock producers have designed plans that include, above all, construction of embankments for the accumulation of water and planting trees to shade and eventual resource for the forestry industry.

#### ➤ **Basaltic Cuesta**

Visited livestock producers have designed plans that include, above all, investments in division of pastures and infrastructure necessary for sustainable rangeland management. It is noteworthy that farmers in the project area have chosen to return natural field after years of failing trying to settle foreign pastures. The return to natural field has implied more knowledge on sustainable management and they have taken advantage of the opportunity to train and invest in necessary infrastructure.

### **III. Similarities and differences with the Argentine NEA project**

Here are some similarities and differences observed are highlighted during the visit:

- Both projects include pilot projects in weather insurance. In Uruguay, the scheme was defined following a preliminary study for the project, made with various institutions and the World Bank: in this way, in the project is already defined that the scheme will be to secure Index based on NDWI (color pasture). The pilot is about to begin. In Argentina, by contrast, the scheme will be defined during the project. Is at the stage of diagnosis.
- Both projects are based on working with organizations or groups. What's more, the Uruguayan executing agency, the Ministry of Livestock, has a previous project strengthening organizations. Thus, producers who organizations grouped in the project have profited more effectively from the Adaptation Fund project inputs.
- In Uruguay project, the creation of revolving funds is promoted in organizations; in the project of the Argentine NEA, no. Yet the UCAR has extensive experience with



revolving funds in their other programs and projects, so you might think to promote the adoption of these instruments in future adaptation projects.

- Argentina has a distinctively strong by having technical extension workers deployed in the territory and whose work transcends and It covers all programs and projects that fall to the territory; while Uruguayan producers need to resort to hired technicians privately. In fact, technical advising in the project are hired temporarily for the duration of the project; then producers should consult privately veterinarians or requiring specialist in each case.
- Uruguay has more control over the ownership of the land in the Uruguay project, most producers have ownership of the land works or lease, but at least in the project, not seen so many cases of irregularity tenure as Argentine NEA project; incorporated that irregularity is one of the biggest problems contributing to the vulnerability of producers.
- **Target:** in Argentina, the recipients of the project have high levels of poverty. The vulnerability of these producers is much more linked to the socio-economic aspects and external pressures (ie. surrounded by large producers of soybean and sunflower), but are also hardly hit by extreme weather (11 months of droughts, major flooding). In Uruguay, the project beneficiaries have higher productions (even small), are better able to identify solutions to their problems, receive more support from the government during emergency periods (eg. forage rations distributed in severe drought), and climate variability has been less aggressive; vulnerability in the case Uruguay is more related to difficulties in land management, very low agricultural potential, geographical isolation, remoteness to populated places with potential suppliers; rents are high and the motivation to stay in the rural areas is very low. So any increased aggressiveness of the weather can break them.
- **Arrival recipients:** in Argentina, the recipients are identified by extension services in the territory and the project covers 100% of the investments; in Uruguay, the recipients are called to present their adaptation plans through calls for projects and are asked to cover 35% of the investments (20% in property Investment + 15% to participate in rotating funds).
- **Scheme of work:** in Uruguay, investments are divided into "adaptation packages ", through which each recipient receives a full package of adaptation measures; in Argentina, adaptation measures are distributed to more farmers but without an integral package.
- **Monitoring and Evaluation:** Uruguay is advanced in terms of activities monitoring and evaluation. To highlight: They are developing a system Information management; measure the intensity of technical support; They are designing an indicator of adaptive capacity for the project, Depending on the level of adaptation of the measures implemented and integrity of the assembly thereof in the plans of producers. As for the evaluation, they performed important work to define the line database producers and could make a valuable comparison among the producers which was reached with the project and those who do not It was reached. Thus, important information to have improved continuing the project.

#### IV. Lessons learned

There are several lessons that can be taken as recommendations for Argentina:

- The UCAR has experience in **working with organizations**, which is essential for increasing the adaptive capacity of the producers. It is advisable to include a component for Strengthening Organizations in adaptation projects, in order to assign a unique budget for these tasks.
- The UCAR has extensive experience with **revolving funds** in their other programs and projects. These instruments contribute to strengthening producers in the long run. It is recommended to promote the adoption of these instruments in future adaptation projects.
- The irregularities in **land tenure** is one of the largest problems that contribute to the vulnerability of producers. Would advisable to consider including this in adaptation projects.
- Interestingly, the Uruguayan scheme is based on "**adaptation packages**". After various discussions throughout the visits, the team concluded that both approaches are valid: the adaptation package works with an integral perspective; the adaptation measures more distributed calls for coordination with the various institutions involved in the territory to supplement in the long run. Argentina can mainstream "adaptation package" as another possible scheme for new projects, in the event that it deems appropriate to the context in which they arise.
- As agreed with the NIE and executing agencies of Uruguay project, the UCAR will draw on the experience developed in Uruguay in terms of **monitoring and evaluation** of an adaptation project.

**Annex 3: Agenda of the mission and list of institutions/stakeholders met by the mission in each country**

Agenda mission Uruguay

| DATE                             | LOCATION                   | OBJECTIVE                               | INSTITUTION/STAKEHOLDER  |
|----------------------------------|----------------------------|---|--|
| 9 OF NOVEMBER<br>9:30 AM - ANII  | MONTEVIDEO                 | GENERAL DISCUSSION                      | MVOTMA DR. RAMÓN MÉNDEZ<br>IADB Ec. GUSTAVO CRESPI<br>WORLD BANK<br>SRA.MATILDE BORDÓN - URUGUAY WB REPRESENTATIVE |
| 10 OF NOVEMBER<br>9:30 AM - MGAP | MONTEVIDEO                 | PROJECT PRESENTATION                    | MGAP, DGDR, UACC, RENARE, IPA, INIA, UDELAR  |
| 11 OF NOVEMBER                   | EAST HILLS                 | SUB-PROJECTS VISITS                     | MDRs of Lavalleja, Maldonado and Treinta y Tres and farmers, grass-root organizations, farmers/communities         |
| 12 OF NOVEMBER                   | EAST HILLS/BASALTIC CUESTA | SUB-PROJECTS VISITS                     | MDRs of Salto, Lavalleja, Maldonado and Treinta y Tres and farmers, grass-root organizations, farmers/communities  |
| 13 OF NOVEMBER                   | BASALTIC CUESTA            | SUB-PROJECTS VISITS AND CLOSING SESSION | MDRs of Salto and farmers, grass-root organizations, farmers/communities<br><br>Closing session in Montevideo      |

Uruguay

The mission met with a number of institutions (see Annex) and visited a number of beneficiaries of the project in the two target regions. These included:

- Meetings with representatives of the implementing entity, the National Agency for Research and Innovation (*Agencia Nacional de Investigacion y Innovacion, ANII*), including a briefing session at the start of the mission, and individual interviews with key staff within the institution;

- Meetings with the executing entity of the project, i.e. the Ministry of Livestock, Agriculture and Fisheries (Ministerio de Ganadería Agricultura y Pesca, MGAP). The MGAP project management unit was the main counterpart of the mission team and organized the meetings with the other project stakeholders and the site visits;
- Meetings with technical and financial partners of the government: the World Bank, which is a partner of the MGAP and is funding a project in the livestock sector, which is implemented by the AF project management unit within MGAP, and the Inter-American Development Bank (IDB) which is a key partner of ANII in the areas of research and technology;
- Discussions with implementing partners of MGAP, i.e. the Consultative Group on Family Agriculture, the IPA, the Uruguayan Institute of Meteorology, the INIA, the Faculty of Agronomy of the University of the Republic of Uruguay;
- Meeting with representatives of the Ministry of Environment, who shared with the mission the government's vision and strategy to tackle climate change and variability in Uruguay in both areas of adaptation and mitigation;
- A visit to the property of Justino Fernández and his family (338 hectares) in Minas (Sierra del Este), who benefitted from a grant to invest in water retention infrastructures (*tajamares*), natural shade and shelter for the cattle and improved rangeland management techniques such as pasture subdivision, requiring investment in electric fences powered by solar panel;
- Meeting with the farmer group "Polanco-Barriga Negra" (Sierra del Este) which is a non-profit organization affiliated with the National Commission of Rural Development and covering rural areas within 30 km. The project supported 50 members of the group, through 7 projects, with 5 private technical experts supporting them in the identification and implementation of investments and activities. These included the preparatory support for the establishment of a revolving fund, testing a pilot insurance scheme based on a water-deficit index in livestock breeding for 16 farmers, a project to improve the involvement of young people in the management of livestock – which is a real issue in the rural areas of Uruguay – and training courses on Organization Management;
- A visit to the property of the Mouton Brothers (389 hectares) in Cuchilla Casa de Piedra, Tacuarembó (Basaltic Cuesta), who were supported by the project in the development of a rational grazing system which would help increase the productivity. This involves technical assistance and investment in fences in an area of 30 km. the farmers are also supported in identifying land use alternatives for less productive areas in the property, and increasing the calving rate from the current 50-55% to 75-80% through improved management;
- Meeting with the Development Group "Quebrada de Laureles" in Tacuarembó (Basaltic Cuesta), composed of ten farmers (men and women) living in a radius of 10 km, which participate actively in the Rural Development Board of Caña. The superficies of their properties vary from 39 to 500 hectares, with a relatively low productivity index. The group benefitted from support in investments in infrastructures (subdivision of lands, water storage infrastructures, shelters...) and technical support including training sessions, workshops in thematic areas such as natural rangeland management, livestock management with an aim at reducing the vulnerability to climate change and variation, particularly through adjusting stocking rates in order to make a better use of the pasture, which has not been an easy task in the past

because of the soil characteristics in that area. In addition, young people will receive basic professional training in sustainable livestock management; this will help promote the development of a new generation of farmers, in areas where an important portion of that category are not involved in that activity. Lastly, the group is also developing a revolving fund that will help them sustain their activities.

Argentina

The mission met with the stakeholders listed in the agenda below.

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| DATE            | LOCATION   | OBJECTIVE   | STAKEHOLDERS  |
|-----------------|--|---|---|
| Mon<br>2<br>nov | UCAR y MAGyP,<br>Buenos Aires<br><br>Flight to<br>Province of<br>Chaco | <p>10:00 am -10.30 am Opening at UCAR offices: Belgrano 450 4<sup>th</sup> floor.</p> <p>10:30 am – 11:45 am Introduction - UCAR</p> <ul style="list-style-type: none"> <li>- M. Nanclares: Institutional framework of the project.</li> <li>- L. Abram Alberdi: General presentation of the project.</li> <li>- S. Moreiras: Execution key figures.</li> </ul> <p>Break</p> <p>11:45 am – 1:00 pm Executing entities: Progress in execution and future activities across the 3 components:</p> <ul style="list-style-type: none"> <li>- D. Ramilo: Introduction to INTA. Components 1.1 y 1.3</li> <li>- P. Mercuri y S. Occhiuzzi: Component 2</li> <li>- I. Barth: Component 3</li> </ul> <p>Training Lunch</p> <p>3:00 pm – 4:00 pm Ministry of Agriculture, Farming and Fishery: Av. Paseo Colón 982</p> <ul style="list-style-type: none"> <li>- Meeting with MAGyP authorities.</li> <li>- S. Occhiuzzi: Roles of ORA. Insurance against climate events in Argentina Subcomponent 1.2</li> </ul> <p>7:20 pm – 8:47 pm Buenos Aires - Resistencia, Province of Chaco</p> <p>Flight. Night in Corrientes (Hotel Orly).</p> | <p>Authorities from UCAR, INTA, ORA, SAsyDS, Argentine Foreign Office</p> <p>Authorities y and work teams from:</p> <ul style="list-style-type: none"> <li>• UCAR [Unit for Rural Change]</li> <li>• INTA [National Institute for Agricultural Technology]</li> <li>• ORA [Office of Agricultural Risk], MAGyP [Ministry of Agriculture, Farming and Fishery]</li> <li>• SAsyDS [Secretariat of Environment and Sustainable Development]</li> <li>• INTI [National Institute of Industrial Technology]</li> <li>• SAF [ Secretariat of Family Agriculture]</li> </ul> |
| Tue<br>3<br>nov | Chaco y Corrientes<br>+<br>Actividades del proyecto                    | <p>9:00 am - 11:00 am Interview with the Ministry of Production of Corrientes.</p> <p>11:30 am - 1:00 pm Interview with the Ministry of Production of Chaco.</p> <ul style="list-style-type: none"> <li>➢ At both meetings: <ul style="list-style-type: none"> <li>• Progress regarding the agreements for integration of agrometeorological networks between INTA and provincial</li> </ul> </li> </ul>  | <ul style="list-style-type: none"> <li>• UCAR</li> <li>• INTA</li> <li>• Ministry of Production of Chaco</li> <li>• Ministry of Production of Corrientes</li> </ul>   |

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|--------------|-------------------------------|---|---|
|              |                               | <p>(Component 2).</p> <ul style="list-style-type: none"> <li>• Need for transfer of risks systems (Subcomponent 1.2.)</li> <li>• Synergies and replicate effects of the activities conducted in the area (Subcomponent 1.1.)</li> </ul> <p>2:30 pm - 5:00 pm: 235-km shuttle to "Las Curiosas", Rural Tourism complex in Aviá Terai, Chaco.</p> <p>8:00 pm: Presentation of the tour planned for the following two days (INTA)</p> <p>9:00 pm: Dinner</p>   |   |
| Wed<br>4 nov | Project activities<br>(Chaco) | <p>7:30 am - 8:00 am: Shuttle from Aviá Terai to Corzuela</p> <p>8:00 am - 10:30 am: Meeting with the organization in charge of building the water cisterns. Visit to three cisterns with manual pumps and screens.</p> <p>11:00 am - 12:00 pm: Press conference for press media at Las Breñas EEA [Agricultural Experimental Station]</p> <p>12:00 pm - 1:00 pm: Travel to Gancedo.</p> <p>1:00 pm - 3:30 pm: Lunch at "El Meteorito" with producers and city mayors of Hermoso Campo, Gancedo and Pinedo.</p> <p>3:30 pm - 4:00 pm: Travel to Hermoso Campo.</p> <p>4:00 pm - 6:30 pm: Visit to cisterns and meeting with organizations in charge of their construction.</p> <p>8:00 pm - 9:00 pm: Shuttle to Las Breñas, lodging at Hotel "Imperio".</p> | <ul style="list-style-type: none"> <li>• UCAR</li> <li>• INTA</li> <li>• City mayors and organizations from the area</li> </ul> |

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|-------------------|--|--|--|
| Thu<br>5th<br>Nov | Project activities<br>(Chaco)<br>Travel Chaco-<br>Buenos Aires | <p>7:00 am - 8:00 am: Shuttle from Las Breñas to Pampa del Zorro</p> <p>8:00 am - 10:00 am: Pampa del Zorro. Meeting with the organization and participants of the construction of the wells bored and cased with concrete.</p> <p>10:00 am - 12:00 pm: Pampa Gómez. Meeting with Association of Rural families from west Chaco. Performance of a boring with project machinery</p> <p>12:00 pm – 2:00 pm: Exchange meeting on the project's accomplishments and where to go from there</p> <p>2:00 pm - 3:30 pm: Lunch with the organization of Pampa Iporá Guazú at the property of producer Ricardo Santillán where training was conducted together with INTI of a community well.</p> <p>3:30 pm - 6:30 pm: Shuttle to Resistencia.</p> <p>9:47 pm - 11:20 pm : Resistencia - Buenos Aires</p> | <ul style="list-style-type: none"> <li>• UCAR</li> <li>• INTA</li> <li>• INTI</li> </ul> |
| Fri 6<br>nov      | SAyDS.<br>INTA Castelar.                                       | <p>10:00 am - 12:00 pm Interviews with SAyDS, San Martin 451 first floor:</p> <p>a) Climate Change Office</p> <p>b) Adaptation Fund Project in Buenos Aires</p>  | SAyDS y UCAR   |
|                   |  | <p>12:00 pm: Shuttle to Castelar</p> <p>1:00 pm: Lunch.</p> <p>2:30 pm: Visit to the laboratory where NIMBUS II agrometeorological stations are assembled (Subcomponent 2.1.)</p> <p>3:30 pm: Meeting on the activities of Component 2</p> <p>4:30 pm: Closing</p>   | Everyone   |



