AF WB Argentina ARG/MIE/Rural/2011/1
INCREASING CLIMATE RESILIENCE AND ENHANCING SUSTAINABLE LAND MANAGEMENT IN THE SOUTHWEST OF THE BUENOS AIRES PROVINCE

REPORT OF THE MID-TERM EVALUATION / REVIEW

February 2018

Contents

LIST OF ACRONYMS

AES	Agricultural Experiment Station
AFB	Adaptation Fund Board
AF	Adaptation Fund
AGN	National Supreme Audit Institution
CERZOS	Center of Renewable Natural Resources in the Semiarid Zone
CONICET	National Center of Scientific and Technical Research
CORFO Rio Colorado	Corporation for the Development of the Rio Colorado Valley of Buenos Aires
EIRR	Economic Internal Rate of Return
FM	Financial Management
FY	Fiscal Year
GCCC	Governmental Committee on Climate Change
GIA	Geographical Intervention Area
GoA	Government of Argentina
IEWS	Information and Early Warning System
INTA	National Institute for Agricultural Technology
IPF	Investment Project Financing
IRI	Intermediate Result Indicator
JGM	Chief of the Cabinet of Ministers
KM	Knowledge Management
MAI	Ministry of Agroindustry
MAyDS	Ministry of Environment and Sustainable Development
M&E	Monitoring and Evaluation
MIE	Multilateral Implementing Entity
MTR	Mid-Term Review
NDC	Nationally Determined Contribution
OM	Operational Manual
OPDS	Provincial Agency for Sustainable Development
PAD	Project Appraisal Document
PDO	Project Development Objective
PIU	Project Implementation Unit
QER	Quality Enhancement Review
RF	Results Framework
SAyDS	Secretariat of Environment and Sustainable Development
SIS	Specific Intervention Site
SLM	Sustainable Land Management
SMART	Specific, Measurable, Achievable, Relevant and Time-bound (indicator)
SMN	National Meteorological Service
SWBA	Southwest of the Buenos Aires Province
TNC	The Nature Conservancy
TT	Task Team
TTL	Task Team Leader
UNS	National Southern University
WB	World Bank
FY	Fiscal Year

KEY PROJECT INFORMATION

Project Development Objective (PDO): To contribute to reducing climate and man-made vulnerability of the agroecosystems in the Southwest of the Buenos Aires Province by increasing adaptive capacity of key local institutions and actors and piloting and disseminating climate resilient and sustainable land management practices.

Project Components	**Cost (USD M)**
Component 1: Reducing Institutional and Community-level Vulnerability	1.027
Component 2: Implementing Adaptation Measures in Productive Agroecosystems	2.291
Component 3: Applying a Participatory Approach to Knowledge Management and Monitoring and Evaluation	0.140
Component 4: Developing a Sustainability Strategy	0.195
Unallocated and crosscutting costs	0.307
Total grant proceeds	3,960,200

Project Milestones

Adaptation Fund Board (AFB) Approval: December 14, 2012
Signing of the agreement between the AFB and World Bank (WB): February 25, 2013
WB Approval: September 20, 2013
Government countersignature of the Grant Agreement: March 18, 2014
Project effectiveness: May 27, 2014
First disbursement: March 18, 2015
First Inception Workshop: June 11, 2015
MTR mission: April 3-7, 2017
Closing Date: December 30, 2018

Intervention area: In Argentina, the direct intervention area of the project "Increasing Climate Resilience and Enhancing Sustainable Land Management in the Southwest of the Buenos Aires Province" (the Project) consists of three (3) Municipalities/Counties (*Partidos*): Puan, Villarino and Patagones, and the indirect intervention area of nine (9) further Municipalities/Counties within the Southwest of the Buenos Aires Province (SWBA). The SWBA is of approximately the size of Belgium. It encompasses typically arid to semi-arid environments, the latter of which transition to more humid areas towards the northeast with the isohyet of 660 mm.

In operational terms, the Project's direct intervention area is divided into three (3) Geographical Intervention Areas (GIAs) that include 11 Specific Intervention Sites (SISs). The "Semi-arid GIA" and "Arid GIA" sustain rainfed farming systems, while the intermediate "Irrigation GIA" is subject to an irrigation regime managed by the Corporation for the Development of the Rio Colorado Valley of Buenos Aires (CORFO Rio Colorado). The GIAs and SISs are presented briefly as follows, and Annex 1 includes a summary table on the same:

(i) **Semi-arid GIA** comprises agroecosystems between the isohyets of 530 and 660 mm from the upper half of Villarino and Puan. Interventions affect transition environments and include a total of five (5) SISs: the three (3) experimental SISs, two (2) in Naposta Field in charge of the National Southern University (UNS), "Naposta-UNS"; and the Center of Renewable Natural Resources in the Semiarid Zone (CERZOS) – National Center of Scientific and Technical Research (CONICET), "Naposta CERZOS-CONICET"; and the Agricultural Experiment Station (AES) of Bordenave in charge of the National Institute for Agricultural Technology (INTA), "Agroecological Unit Bordenave-San German"; as well as "San German Dryland" and "Levalle Dryland" also in charge of INTA. The Semi-arid GIA also hosts a group of pilot fields that were used by The Nature Conservancy (TNC) as it conducted the baseline study on the SISs.

(ii) **Irrigation GIA** comprises the lower half of the Villarino and the upper third of Patagones between the isohyets of 530 and 450 mm. It includes two (2) SISs managed by INTA: "Pradere Irrigation" focused on integrated management of soil, forestry and apicultural production by small farmars, and "Ascasubi Irrigation" that promotes efficient water use.

(iii) **Arid GIA** comprises the lower third of Patagones with isohyet below 450 mm. It includes three (3) SISs managed by INTA Patagones: "San Jose Dryland" focused on tillage management to reduce soil compaction and management of perennial pastures; "Patagones Rangelands/Monte Biome" focused on management of shrubs for livestock grazing, rotating the cattle among plots, and plot closures for regeneration of natural pasture; and "Apiarian Patagones" focused on diversification of traditional agricultural systems through introduction of olive plantations; and "Carlos Spegazzini Agrarian School" in charge of the said school, focused on diversification of traditional agricultural systems through introduction of apiaries fed by native species.

Beneficiaries: The Project targets farmers and farmer families engaged in small and medium-sized agriculture and/or cattle production on drylands. Additionally, a wide range of actual and potential partner organizations working on related aspects in the SWBA and up to national level are expected to benefit from and contribute to a comprehensive set of capacity building and institutional strengthening measures promoted by the Project.

Key Project Ratings

Name	**June 2016**	**February 2017**	***February 2018*[1]**
Progress towards Achievement of Project Development Objective (PDO)	Moderately Unsatisfactory	Moderately Satisfactory	*Moderately Satisfactory*
Overall Implementation Progress	Moderately Unsatisfactory	Moderately Satisfactory	*Satisfactory*
Disbursement Rate	13%	29%	*50%*
Overall Project Risk	Moderate	Moderate	*Moderate*

At the date of the Mid-Term Review (MTR) mission in April 2017, the accumulated disbursements totaled US$1.16M, compared with the US$2M+ originally projected for the MTR. The accumulated co-funding executed was confirmed to be app. US$320K; 33 percent of the total of US$962K committed by the Ministry of Environment and Sustainable Development (MAyDS), and 17 percent of the total committed co-funding of US$1,859,000, including the share expected by OPDS, the Provincial Agency for Sustainable Development. *In early February 2018, the grant disbursements have reached US$1.97M; 50 percent.*

Key Project Features

1) This Project was the first WB operation financed by the Adaptation Fund (AF).

2) The initial Project implementation suffered heavy delays as the first disbursement took place in March 2015, almost a year after Project effectiveness. The Project Implementation Unit (PIU) was established and became legally operational within the Secretariat of Environment and Sustainable Development (SAyDS) in July 2015. Those delays were due to slow bureaucratic processes coupled with issues related to the change of the responsible SAyDS authorities in December 2014. After the Government of Argentina (GoA) administration changed in December 2015, the SAyDS was upgraded to MAyDS in early 2016, and the PIU settled down under the National Directorate of Forests, Territorial Planning and Soil.

3) The PIU suffered first of lack of experience and executing capacity. Since early 2016, the implementation started to gain speed after the PIU had accumulated initial experience and lessons learnt. Since then, it has

[1] A column added beyond the MTR period, taken the later submission of the present MTR Report.

developed a solid working relation with the targeted municipal actors and coordinates with other related national and provincial institutions and programs with overall satisfactory results. The PIU includes technical, fiduciary and communications staff, and is equally supported by MAyDS staff, including the responsible authorities. Heavy work load implied by procurement and related logistics in the field remains the main challenge for the PIU.

4) The Project's institutional set-up is complex, mainly due to (i) political and operational issues between MAyDS and OPDS, which was to provide the Project's institutional basis in the field, yet limited collaboration was achieved until the MTR, and (ii) the PIU facing an intense work load on procurement and interinstitutional coordination and collaboration to implement a diverse set of pilot activities from the capital city while the logistics in the field are challenging.

5) The Project has potential for strategic action with interesting replication and scale-up chances in terms of promoting policies and measures geared to increase climate resilience through sustainable land management (SLM) and fight against desertification and biodiversity loss. In practical terms, a lot depends on success of interinstitutional collaboration and scale of dissemination activities to be achieved during the remaining Project implementation period.

SUMMARY OF THE COMPONENT STATUS

Component 1: Reducing Institutional and Community-level Vulnerability. Prior to the Project, the MAyDS had limited presence in the SWBA. During Project preparation, OPDS was expected to advise on the main Project intervention lines and provide strategic and political leadership to secure effective coordination among environmental authorities at the national and provincial level. The local staff to be hired to work on the Project in the intervention area were to be hosted in a small OPDS office that was in place during Project preparation, but got dismantled due to political reasons and staff turnover soon after implementation started. Consequently, and due to the overall low capacity of OPDS, it never became in charge of the local institutional relations or support and supervision of the field activities. However, it did participate in the major Project events in the territory.

To compensate the limited OPDS participation, the PIU/MAyDS needed approximately a year to consolidate the necessary working relations with local actors, and the same have evolved successfully thereafter with most of the key institutions at local, provincial and national level while organizing participatory meetings, workshops and training events and establishing shared work fronts. A lot of effort has focused on coordination with the institutions that lead the execution of the adaptation pilots in the Specific Intervention Sites (SISs) under Component 2, namely INTA that manages eight (8) SISs, UNS, CERZOS-CONICET, and Carlos Spegazzini Agrarian School that each manage one (1) SIS, as well as the three Municipalities that are direct beneficiaries of the Project; Puan, Villarino and Patagones. On the downside, direct collaboration has remained scarce with the provincial Ministry of Agroindustry, seemingly due to "territorial" mistrust towards the MAyDS as it works with local farmers. During 2017, collaboration has been initiated with the national Ministry of Agroindustry (MAI), as the Project has provided useful experience and lessons learnt for a US$150M loan for Argentina Integrated Management of Agricultural Risks (P162316), a WB project currently under preparation.

The main result of Component 1 has been the establishment and interinstitutional operation of an innovative Information and Early Warning System (IEWS) on Climate Change and Desertification within the SWBA. The IEWS has produced and disseminated quarterly Meteorological and Agricultural Outlook Reports since December 2016, covering agrometeorological conditions, agricultural production forecasts, and risk of fire and wind erosion. Exceeding the original plans, fluent articulation is on-going and collaboration deepening with the National Meteorological Service (SMN), which due to its mandate, capacity and resources plays a central role both in the IEWS functioning and disseminating the encouraging experience and harvested lessons learnt at the national level.

The Project has contributed to capacity building at municipal level e.g. benefitting of Memorandums of Understanding that MAyDS implements with China and Uruguay, within which framework local technicians have received international visitors to showcase their adaptation efforts, learnt relevant substance from the visitors and a couple of local representatives have been able to conduct a return visit as well.

Component 2: Implementing Adaptation Measures in Productive Agroecosystems. After the initial delay in getting the Project operational, implementation of its most substantive component on adaptation measures in productive agroecosystems has advanced within the expected pace. A year was needed to carry out the participatory planning stage involving the direct beneficiaries and the four (4) responsible institutions at the local level; INTA, UNS, CERZOS-CONICET and Carlos Spegazzini Agrarian School. 11 SISs and three (3) municipal pilot plans have been identified and designed through participatory processes with the responsible institutions and beneficiary municipalities, farmers, and other local actors. Two (2) of the municipal plans are on reforestation, one in Puan and other in Villarino, and one (1) on environmentally geared forage production in Patagones to fix soil and reduce wind erosion through increased topsoil coverage. Similar sustainable forage plans are under work also in Puan and Villarino.

Component 2 interventions present a diverse range of activities from two municipal tree nurseries to diverse land management pilots both in terms of productive activities and scientific experiments. A total of 12 climate-smart land use practices are under implementation based on strong local ownership, presenting different levels of implementation progress, mainly depending on the success and time required by respective procurement processes. The PIU has invested significant time and effort to procure the necessary goods and services that have been diverse and partly highly specific in terms of technical qualities and required species, including procurement of hardly accessible native tree seedlings. The combined need to comply with the WB procurement rules and biological planting times has presented challenges, as well as organizing the logistics in the field to properly receive and secure the quality of the procured goods.

As with SMN under Component 1, a notable articulation between national and local governmental organizations, beyond the original Project design, is taking place in Villarino, where the Project contributes to a pioneering collaboration between the national Ministry of Social Development, National Road Agency, and the municipal government that have created one of the first green employment programs in Argentina. It plants tree barriers along national roads to reduce wind erosion.

As concluded since a technical field mission conducted by the WB in August 2016, Component 2 can be described through the following key elements:

(i) the 11 SISs build upon work programs/prior initiatives of key stakeholders at the local level, either enabling major scale/depth and/or completing earlier activities;
(ii) the Project credibility in the field suffered initially due to the implementation delays, but the arrival of the initial investments in mid-2016 allowed a renewed momentum for successful implementation;
(iii) the relevance of the planned activities has sustained the local commitment with the planned activities even though the on-the-ground implementation until the MTR took place with precipitation above the average in some parts of the Project area;
(iv) the implemented practices are adequate both in the local context and for the objective of increased climate resilience of similar productive activities beyond the Project intervention area, and the Project engagement must be increased in dissemination activities first between and then beyond the SISs;
(v) OPDS has limited presence in the field both overall and related with the Project activities, and it is not considered pertinent that the Project would try to strengthen said presence; and
(vi) the Project substance is of high relevance for the provincial Ministry of Agroindustry, which has expressed interest in activities as the municipal plans on sustainable forage production, tree nurseries and reforestation plans. However, it would be important to strengthen said interest and generate more coordination and collaboration.

Overall, Component 2 is advancing positively despite manifold challenges the PIU keeps facing particularly with the related procurement processes, many of which are mutually interlinked and some dependent on specific biological periods that result critical for successful implementation. The PIU has gained related lessons, and during the MTR mission the WB agreed on the PIU/MAyDS request to contract two (2) new fiduciary assistants, one (1) co-financed by MAyDS. Annex 2 presents an operational comparative across 2015–2017 on the key numbers that reflect the intensity of the implementation efforts.

Component 3: Applying a Participatory Approach to Knowledge Management and Monitoring and Evaluation. Staff of the local counterpart institutions involved in the SISs and the municipal plans have been trained on the applicable monitoring and evaluation techniques that apply across the Project activities. Implementation of consistent and periodic monitoring activities are conducted, yet their systematic register in files and compilation of aggregated monitoring data was still work in progress at the MTR. Said work gains importance as the implementation proceeds and results materialize, and the PIU is working to achieve mayor engagement by the SISs in full monitoring tasks as a priority for the remaining implementation period.

Regarding the measurement of the key results achieved in SLM practices through the PDO indicator "Productive agroecosystems in the pilot sites maintained or improved to withstand conditions resulting from climate variability and change", a baseline study on the SISs was finalized in August 2017 by TNC to operationalize the indicator. The first follow-up study will be conducted during the last quarter of 2018.

The PIU has worked a lot on communication and increasingly on knowledge management (KM) activities. The Project has gained notable visibility in local media; until the end of June 2017, the PIU registered 96 Project-related articles/programs. Farmers working on the SISs share monthly discussion gatherings where information and experience is shared amongst members of the group and equally with non-participating farmers interested in the piloted activities that join the gatherings. The two (2) local field technicians contracted by the Project serve as key information disseminators across the SISs and the beneficiary Municipalities.

Component 4: Developing a Sustainability Strategy. Until the MTR, the Project activities under Component 4 included four (4) main interinstitutional work fronts on policies/plans that aim to develop/scale-up results that transcend the Project implementation period:

(i) the IEWS that at the MTR focused on improving the report dissemination and consolidation of its institutional set-up;
(ii) Villarino Reforestation Plan that counts with innovative collaboration with the national Ministry of Social Development and the National Roads Agency;
(iii) municipal sustainable forage plans to support recovery of degraded soil and natural pastures through use of perennial and nitrogen-rich species; and
(iv) dialogue within the Governmental Committee on Climate Change (GCCC), including elaboration of national adaptation plans, particularly on agroindustry, as well as sector plans and funding proposals for the Nationally Determined Contributions (NDCs).

MID-TERM REVIEW

The MTR of the AF project in Argentina, "Increasing Climate Resilience and Enhancing Sustainable Land Management in the Southwest of the Buenos Aires Province" (the Project), supported by the World Bank (WB) as the responsible Multilateral Implementing Entity (MIE) and executed by the Ministry of Environment and Sustainable Development (MAyDS)[2], was conducted following the standard WB MTR guidelines, presented in Annex B of the 2014 Investment Project Financing Implementation Support Guidance Note, and the AF Guidelines for mid-term evaluation/review. The present report has been prepared to cover the requirements set for the MTR by the AF.

Timing and way: The MTR got started with initial discussions between the WB Task Team (TT) and the PIU during an implementation support and supervision mission conducted in November 2016, when the issues and aspects to be covered during the MTR were identified. Thereafter, the PIU prepared and sent to the WB various inputs to follow-up with the discussions; a proposal on a revised results framework (RF), revision of the institutional arrangements with focus on the role of OPDS, and an update on the disbursement estimates.

In March 2017, the WB prepared and conducted an internal Quality Enhancement Review (QER) meeting prior to the MTR mission. The QER consisted of preparation of an "Issues Paper"; an instrument used by the WB to provide the reviewers with a summary of the basic project information, key aspects of the implementation status, and the main issues identified by the TT during its support and supervision activities. In this case, the Issues Paper included the updated findings of the November mission, and it was accompanied by the latest Implementation Status and Results Report from February 2017, and the original Project Appraisal Document (PAD). Said MTR package was subject to peer review by selected WB staff with relevant expertise but no direct relation with the Project.

The MTR mission was conducted during April 3-7, 2017, including (i) an introductory day with presentations by the PIU and discussions with the responsible authorities/representatives of the MAyDS, Ministry of Finance and the Chief of the Cabinet of Ministers (JGM) on the progress achieved and implementation challenges faced; (ii) a three-day field visit that covered most of the Specific Intervention Sites (SIS) where Project investments started to touch the ground since May, 2016, to verify the advance achieved and discuss the Project experience amongst beneficiaries and participating institutions at the local level; (iii) a concluding technical meeting; and (iv) a closing meeting together with the responsible GoA authorities/representatives to exchange on the observations and lessons learnt from the field and to plan the next steps to strengthen results during the remaining implementation period, focusing on sustainability and options for replication and scale-up. The MTR mission agenda is included in Annex 3.

Participants: Beyond the referred representatives of the PIU and GoA, the MTR participants by the WB included three (3) peer reviewers: a Lead Agriculture Economist, a Senior Climate Change Specialist, the Program Leader on Sustainable Development in the Mexico and Colombia Country Management Unit, expert on water resources management; a Senior Monitoring and Evaluation Specialist; and further reviewers who represented the Argentina Country Office and the responsible Global Practice of Environment and Natural Resources. The WB TT that participated in the mission was composed of a Task Team Leader (TTL), who had taken the Project over recently in February 2017, yet had served as a Co-TTL during Project preparation and as an Environmental Specialist on an as-needed-basis thereafter; a Co-TTL that had supported and supervised the Project from the Country Office since the final stages of the preparation stage; a Procurement Specialist; and a Financial Management Specialist. Participants in the field visits included the MAyDS National Director of Territorial Planning, Land and Fight against Desertification and Advisor to the Sub-secretary of Environmental Territorial Planning, PIU representatives, the WB TTL and Co-TTL, representatives of most of the responsible institutions at the local level, representatives of the Municipalities of Puan, Villarino and Patagones, and beneficiary farmers.

Key issues: The MTR focused on: (i) progress and challenges in achieving Project outcomes; (ii) status and functionality of the institutional arrangements for Project implementation; and (iii) review of the Project

[2] The "Secretariat of Environment and Sustainable Development (SAyDS)" during the Project preparation and until early 2016.

implementation plan and Operational Manual, including the RF. The following restructuring needs were discussed and agreed upon to adjust the Project design at the end of the MTR process:

(i) Improve the strategic focus of the implementation efforts by dropping two outputs with minor impact on the expected Project results;
(ii) Strengthen the logical results chain across the RF and revise several indicators to improve their being SMART[3];
(iii) Revise two key aspects of the originally envisioned implementation arrangements that could not materialize as planned to reflect the prevailing arrangements regarding the role of OPDS in the field and the responsibility of fiduciary work;
(iv) Plan for optimal implementation of Component 4 on Developing a Sustainability Strategy; and
(v) Adjust the Project budget slightly across the WB disbursement categories, maintaining the operating costs at 5 percent of the total grant amount.

The TT searched for reviewers' views particularly on the:

(i) Adequacy of the proposed adjustments in the RF and suggestions on potential improvements;
(ii) Proposed adjustments in the institutional arrangements;
(iii) Options to strengthen the sustainability prospects and strategic potential of the activities;
(iv) Potential to increase WB's value added for the Project; and
(v) Any other recommendations or aspects drawing reviewers' attention.

The received observations and suggestions were compiled and responded by the TT in a Response Matrix, and the QER meeting took place on March 27, 2017. During the meeting, the most important reviewer recommendations were discussed to prioritize the issues that would need attention during the subsequent MTR mission, as well as decision-making by the MAyDS in charge of the Project.

INITIAL OUTPUTS AND RESULTS OF THE PROJECT

At the level of the Project Development Objective, the following outcomes were achieved by the MTR, measured through the applicable PDO indicators:

1) Number of the targeted institutions that reflect institution-specific adaptation needs in their budget allocations[4] to increase their capacity to address climate-related challenges. Target values: 4 in year 2 and 10 at the end in year 4. At the MTR, two years after the Project Inception Workshop, the following **five (5)** institutions are reported to have increased their capacity to address climate-related challenges:

(i) Municipality of Puan that has allocated resources to strengthen its Bordenave tree nursery and established a Municipal Nature Reserve (protected area);
(ii) Municipality of Villarino that has created a Municipal Environmental Agency, strengthened its Argerich tree nursery, established a Municipal Nature Reserve (protected area), and is co-implementing a pilot program on green employment to plant tree barriers along national roads to reduce wind erosion together with the national Ministry of Social Development and National Roads Agency;
(iii) Municipality of Patagones that has launched an improved Municipal Sustainable Forage Production Plan that aims at fixing soil and reducing wind erosion through increased topsoil coverage;
(iv) National Ministry of Social Development that is heading the co-implementation of the referred pilot program on green employment; and
(v) National Roads Agency that is co-implementing the referred pilot program on green employment.

[3] Specific, Measurable, Achievable, Relevant, Time-bound.

[4] As commented further in the present MTR report, the indicator write-up is proposed to be adjusted to accept a wider scope of related evidence.

2) Productive agroecosystems in the pilot sites maintained or improved to withstand conditions resulting from climate variability and change. Target values: 7 in year 2 and 10 at the end in year 4. At the MTR, two years after the Project Inception Workshop, the indicator value was **13**, yet as clarified below, said value bases on visual observations by responsible PIU/MAyDS staff with relevant technical profile.

41 climate-smart land use practices/technologies have been identified through participatory processes and 12 of them are being implemented in 11 Specific Intervention Sites (SISs). The indicator bases on a proxy index with hypothetical values from 0 to 24, assuming a total of 12 SISs as planned during the Project preparation. In said index, each SIS where the status of the agroecosystem improves adds 2 points; a SIS where it is maintained adds 1 point; and a SIS where the agroecosystem deteriorates adds 0 point.

Collection of the respective baseline information and development of a monitoring system on the SISs was completed in August 2017 by TNC to determine the initial soil conservation status and the key variables to monitor the evolvement of soil quality in the Semi-arid, Irrigation and Arid Geographical Intervention Area (GIA). A control study on the baseline results of the selected variables in the three (3) GIAs will be conducted in each SIS during the last quarter of 2018. Consequently, until said control study, reporting on the index value bases on visual observations.

At the MTR, the indicator value of 13 reflected that out of the total of 11 SISs, two (2) have improved and nine (9) maintained the quality of the agroecosystem to withstand conditions imposed by climate variability. The improved conditions were observed in two (2) SISs in the Municipality of Patagones: (i) “San Jose Dryland” due to the use of paratill, a machine that lifts and bends subsoil to remove hardpans. It gently lifts the soil, allowing it to fracture along its natural planes of weakness and then settle back again. The soil loosening improves water infiltration and drainage, encourages root development, and allows for deeper fertilizer placement. The gentle lifting action leaves topsoil and subsoil layers intact, minimizes clods, and leaves valuable residue on the surface. The paratill financed by the Project is the first in the Project area; and (ii) “Patagones Rangelands/Monte Biome” due to soil fertilization through incorporation of perennial legumes.

The other nine (9) SISs were maintained to withstand conditions resulting from climate variability: two (2) of them are in irrigated areas in Patagones and Villarino; four (4) in non-irrigated areas; two (2) in Patagones, one (1) in Puan, and one (1) in Villarino.

Three (3) SISs are located in experimental fields: (i) an AES in Bordenave managed by INTA, focused on recovery of saline and degraded soil; (ii) Naposta Field by UNS, focused on development of models for SLM through several techniques: soil and land use capability mapping, implementation of pastures on stubble and rotary grazing and crop rotation systems, and planning of management practices; and (iii) experimental plots managed by CERZOS-CONICET in the same Naposta Field, focused on improvement of natural pastures through incorporation of native forage species and simulation and evaluation of drought effects.

3) Relevant threat and hazard information generated and disseminated to farmers and other stakeholders on a timely basis. Yes/No. Target: Yes, starting in year 2. At the MTR, two years after the Project Inception Workshop, the result was **Yes**.

A prototype Information and Early Warning System on climate change and desertification (IEWS) has been developed jointly with local research and extension institutions to generate and disseminate Project-related information on threats and hazards to farmers and other stakeholders on a timely basis. The consortium of institutions that has constituted the basic structure of the IEWS, locally known as "SIAT" (*Sistema de Información y Alerta Temprana*), aimed at reducing climate-related vulnerability, produced, disclosed and disseminated four (4) quarterly Meteorological and Agricultural Outlook Reports (December 2016 and February, June and September 2017) in the Project area. The reports include agrometeorological information, agricultural production forecasts, and risks information on fires and wind erosion. The reports have been compiled and disseminated using media such as rural radios, local institutions’ (Municipalities, INTA, etc.) offices and websites, and social media, e.g. WhatsApp

groups. On this basis, the prototype IEWS remains subject to continued improvement. An operational manual has been elaborated and a legal agreement is under review and signatures by the authorities of the participating institutions to sustain the IEWS operation beyond the Project closure.

At the intermediate outcome level, the following summarizes progress and results achieved by the MTR based on the respective intermediate results indicators (IRIs):

Component 1: Intermediate Outcome: Institutional and community level response and prevention capacities developed to reduce land degradation and desertification and local vulnerabilities of the agricultural sector to climate variability and change

Sub-component 1.1: Creating Institutional Tools for Climate Resilience; % of targeted beneficiaries satisfied with more climate resilient agricultural services (disaggregated by gender). Target values: 15% of both male and female participants in year 2 and 50% at the end in year 4. **No result** on this indicator was available at the MTR; the respective surveys were to be conducted after June 2017.

At the MTR, the PIU suggested and the WB agreed that, in this context, "agricultural services" refers to the provision of the quarterly IEWS reports. Further, it was agreed that "percentage of targeted clients" refers to the percentage of the 408 farmers who participate in the 11 SISs and the municipal sustainable forage production and reforestation plans established with Project support. A survey to determine the degree of satisfaction among the IEWS users will be conducted by end of March 2018.

Output 1.1.1: Institutional capacity building program directed at local public officers; % of targeted local public employees trained. Target values: 20% in year 1; 30% in year 2; 50% in year 3, and 60% at the end in year 4. At the MTR, two years after the Project Inception Workshop, the result was **58%**. No gender target has been set for this indicator, yet the result is monitored by gender. At the MTR, 14 percent of the trained officials were female.

The total of the relevant public employees, as defined by MAyDS following the organic municipal structures in place since December 2015 in the Municipalities of Puan, Villarino and Patagones is 12, corresponding to the three (3) Mayors and Secretaries of Production, the Head of the Municipal Tree Nursery in Puan and in Villarino, Production Assistant and Director of Environment in Villarino, and Director and Assistant of Production in Patagones. At the MTR, nine (9) of them were men and three (3) women.

Output 1.1.2: Information and Early-Warning System (IEWS) on Climate Change and Desertification developed and run through inter-institutional cooperation; IEWS developed/operational through inter-institutional cooperation. Yes/No. Criteria for the target value "Yes" across years 1–4: Key institutions convened and the IEWS being planned/under development in year 1; IEWS operational and has a growing number of users in year 2; IEWS fully operational and has a growing number of users in year 3, and IEWS fully operational and has a growing number of users at the end in year 4. At the MTR, two years after the Project Inception Workshop, the result was **Yes**.

The establishment and subsequent IEWS consolidation was amongst the strongest Project results at the MTR, including notable level of interinstitutional collaboration achieved across the national and local level. The IEWS was established through concrete pilot action; the initial Meteorological and Agricultural Outlook Reports were produced and disseminated parallel to the establishment of the operational rules and formal agreements on operating the IEWS, and the reports' content, layout and distribution canals improved report by report based on the contributing institutions' and users' feedback.

Output 1.1.3: Regional Consultative Observatory of Public Policies on Climate Change and Desertification in operation; Active participation of at least the key institutions of the Observatory. Yes/No. Target value "Yes" across years 1–4. At the MTR, two years after the Project Inception Workshop, the result was **No**.

The Project MTR concluded that Output 1.1.3 will be dropped from the Project design to rationalize the execution efforts by focusing them on the most strategic and promising results. This conclusion based on the results of a consultancy that delivered proposed rules of procedure and a 5-year action plan both for the IEWS and the Observatory, whereby the latter was not considered worth the effort. The agenda and key players of the Observatory would resemble closely those of the Development Plan of the Southwest of Buenos Aires Province and its Regional Council, established by the provincial law 13,647 in 2007, an initiative that hasn't prospered on the ground. On the other hand, the IEWS draws overall a keen interest by its beneficiaries and members, including the National Meteorological Service, and covers similar functions as those initially planned for the Observatory. Consequently, it was decided the Project shall concentrate available human and other resources in further developing and strengthening the IEWS instead of trying to establish a similar network structure that doesn't count with necessary demand on the ground.

Sub-component 1.2: Promoting Climate-smart Socio-cultural Approaches to Land Management; % of consulted people who report on modification(s) in their Project-related practices (disaggregated by gender). Target values: 40% of both male and female participants in year 2 and 60% at the end in year 4. **No result** on this indicator was available at the MTR as it has not been operationalized.

At the MTR, the indicator was discussed in detail, concluding it is not meaningful for the Project and should thus be revised or dropped. Per the PAD, the population targeted by this indicator refers to the 80,000 inhabitants of the directly targeted Municipalities of Puan, Villarino and Patagones. However, most of the inhabitants live in urban areas, while the Project mainly targets rural farmers working on vulnerable agroecosystems. The 408 farmers that work directly on the Project pilots under Component 2 don't compose a statistically representative fraction of the total population.

Output 1.2.1: Training program for key local stakeholders, including specifically opinion leaders; Number of beneficiary days of training provided. Target values: 16 in year 1; 32 in year 2; 48 in year 3, and 64 in year 4. At the MTR, two years after the Project Inception Workshop, the result was **41**.

The result reflected the training days delivered on various Project-related topics by or with close collaboration by the PIU e.g. on participatory project planning, incorporation of climate considerations in productive activities and early-warning systems. In December 2017, in a two-day workshop that formed part of the most recent WB implementation support and supervision mission, it was noted the responsible institutions at the local level organized many applicable training activities, and the indicator result was revised/updated to **70** beneficiary days of training. The revised total consists of 20 days of training reflected in the first AF progress report in June 2016, 45 days of training with the responsible institutions at the local level between July 2016 and December 10, 2017, as well as five (5) days of training provided in Montevideo through international collaboration. The total participants between July 2016 and December 2017 were 1,606.

Output 1.2.2: Teacher training program for environmental education specifically designed for the zone; Number of teacher training institutes within SWBA that cooperate with the Project and offer related training. Target values: At least 6 in year 2 and at least 10 at the end in year 4. At the MTR, two years after the Project Inception Workshop, the result was **4**.

The four (4) educative institutions that collaborate with the Project are UNS, Agrarian School N°1 Carlos Spegazzini, Agrarian School of Patagones, and National Technological University. Further, the General Directorate of Schools, District of Southwest of the Ministry of Education of the Province of Buenos Aires facilitates the Project's provision of educative material to schools within the targeted Municipalities. The Project has produced useful and popular pedagogical material used across schools and other public institutions in the SWBA, including elaboration and dissemination of a simplified, visual poster on climate change and SLM in favor of greater climate resilience.

The Project has also organized/supported events like drawing competitions in local schools on Project-related topics. For example, in 2017 the topic of the competition was "My Footprint on the Ground 2017. Tree Our Refuge" (*Mi*

Huella en el Suelo 2017. El Árbol Nuestro Refugio), and the Project produced related T-shirts and cloth bags. Despite these successful actions, as the indicator requires that the reported training institutes would *offer* related training, the final target of 10 institutes (still more specific "teacher training institutions within the SWBA"), is most probably not going to be achieved.

During the MTR, the PIU/MAyDS suggested to revise/remove this indicator to focus Project implementation on more strategic areas. It was concluded that Output 1.2.2 will be reduced in scope as introducing new curricular content within the public-school system requires completion of demanding administrative processes that take more time than the Project is able to invest; the output was deemed to fall out of the feasible Project scope and the respective IRI is proposed to be dropped together with Output 1.2.2.

Collaboration with local schools will in every case be continued through specific awareness-raising events. Regarding forthcoming actions at the MTR, the terms of reference were elaborated to produce a didactic table game adjustable to different age groups to explore the problematic of climate change and SLM. The Project will produce it for distribution to local schools, including an introductory workshop in each beneficiary Municipality.

Output 1.2.3: Gender-sensitive program on appreciation of the local culture and products, the role of farmers and their family in society; Number of cultural and socio-productive activities carried out in the Project zone jointly with the municipal governments (fairs, exhibitions, etc.). Target values: Minimum two (2) in each of the three Municipalities, as well as a regional fair of sustainable alternative products and production experiences per year; 28 in total at the end in year 4. At the MTR, two years after the Project Inception Workshop, the result was **8**.

The latest results during 2017 refer to the Project participation in the Festival of Patagonian Sovereignty in March in Patagones, Expo Villa Iris in September in Puan, and National Garlic Festival in November in Villarino. Further, the Project organized a workshop on the National Forest Law and protection of native forests for municipal officers in June in Patagones. The Project is not monitoring the respective gender-aggregated custom breakdown indicators, taken such monitoring amongst the people who visit the Project booth during similar public events has not resulted viable nor meaningful.

Component 2, Intermediate Outcome: Concrete adaptation measures to improve climate resilience and sustainability of productive agroecosystems defined and selected based on participatory processes and piloted by local farmers in cooperation with partner organizations

Component 2: Implementing Adaptation Measures in Productive Agroecosystems; Number of beneficiaries who have adopted an improved agricultural technology promoted by the Project (disaggregated by gender). Target values: 200 people; 160 males and 40 females in year 2 and 1,400 people; 1,120 males and 280 females at the end in year 4. At the MTR, two years after the Project Inception Workshop, the result was **1,632** beneficiaries; **1,224** males and **408** females.

At the MTR, 408 farmers; 369 males and 39 females, participated in the implementation of the 11 SISs and the municipal sustainable forage production and reforestation plans, and the result reflects an average of three (3) additional family members. The number of female beneficiaries is considered in terms of each producer family representing one woman.

During the MTR, the PIU/MAyDS proposed and the WB agreed that the "adoption" of improved agricultural technology is considered to imply a process that comprises of four (4) stages that are/will be verified as presented follows:

1) Commitment: verified through the application letter of each SIS.
2) Implementation: verified in the field by means of physical investments associated with the Project activities.
3) Management and evaluation: verified through interviews with farmers and field visits.

4) Adoption: verified through interviews with farmers and field visits.

Within the scope of the remaining Project implementation period, monitoring the number of people who reach the referred stages will be feasible in terms of the two first stages, including in some cases also the third stage of the adoption process. It will be possible to see a trend toward actual adoption of the piloted technologies through verification across the implementation and management and evaluation stages.

Output 2.1: Program of interventions in Geographical Intervention Areas (GIAs), predefined on a participatory basis according to biophysical, economic and social criteria, offering a menu of options related to the management of water resources, crops, cattle and grazing lands; Number of adaptation/sustainable land management (SLM) technologies identified/verified through local participatory consultations under the Project framework that are demonstrated within the GIAs. Target numbers were defined during the first year of Project implementation after the technical consultations have started and were set in 12 identified and nine (9) implemented technologies. At the MTR, two years after the Project Inception Workshop, the result was **41** adaptation/SLM technologies[5] identified and **12** being implemented in the field.

The implemented adaptation/SLM technologies include: 1) Loosening of topsoil and deepening of soil profile by using paratill; 2) planting of perennial pastures to strengthen cattle raising; 3) inclusion of annual legumes in cattle raising management; 4) drip irrigation; 5) planning and implementation of crop rotation; 6) biologic pest management by means of strip cropping; 7) soil mapping; 8) land management zoning and mapping; 9) intercropping of legumes and perennial pastures for fodder; 10) consociated intercropping; 11) production of substrates through composting; and 12) breeding of native plants. Further, an experiment on simulating and evaluating drought impacts is on-going on a demonstrative field; it is not counted against the indicator as adoption of related lessons is not yet viable.

The 11 SIS proposals were identified and designed together with the participating institutions, municipalities, farmers, and other local actors. Their implementation is based on strong local ownership and each achieved a different level of progress. The PIU has invested significant time and effort to procure the initial goods and services to support the start-up of those practices and pilot plans.

Component 3: Intermediate Outcome: Enhanced local knowledge and capacity for adaptation and response, developed in a participatory manner; Number of related articles/programs in the local media and political initiatives in the three municipal Councils of the directly targeted counties. Target values: 24 media articles/programs and 2 political initiatives in year 1; 14 media articles/programs and 2 political initiatives in year 2; 16 media articles/programs and 2 political initiatives in year 3, and 18 media articles/programs and 4 political initiatives in year 4; a total of 72 and 10 media articles/programs and political initiatives, respectively. At the MTR, two years after the Project Inception Workshop, the result was **96**; **89** related articles/programs in the local media and **seven (7)** political initiatives in the three municipal Councils.

Output 3.1: Combined consultation, coordination, training, and knowledge sharing at the local level in the three counties of direct Project intervention to develop and validate intervention proposals and work plans; Workshops and other KM events meet their targets in terms of participation of different stakeholder groups. Yes/No. Target value "Yes" across years 1–4. At the MTR, two years after the Project Inception Workshop, the result was **Yes**.

[5] The term technology includes a change in practices compared to currently used practices or technologies, such as seed preparation, planting time, feeding schedule, feeding ingredients, post- harvest, storage, processing, etc. If one specific technology is demonstrated in more than one location in the Project area, it is counted as one technology. If the Project introduced or promotes a technology package in which the benefit depends on the application of the entire package (e.g., a combination of inputs such as a new variety and advice on agronomic practices such as soil preparation, changes in seeding time, fertilizer schedule, plant protection, etc.), it will count as one technology.

The PIU/MAyDS reports that the workshops and other knowledge management (KM) events until the MTR met their targets in terms of participation of different stakeholder groups, yet no evidence material has been collected and filed to be able to verify it. Beyond two (2) workshops organized in September 2015 on the Project indicators and formulation of the SIS proposals with focus on objectives, the PIU organized a workshop to evaluate the Project advance until the date in December 2016 and 2017, the latter already focused on disseminating thus far lessons learnt. The PIU/MAyDS has invested plenty of work into communication and KM activities and the Project has gained visibility in local media, but systematic monitoring and reporting on this indicator hasn't taken place.

Output 3.2: Capacity building for indicator development and measurement plans, systems of continuous improvement, training for local application groups, and mutual knowledge sharing in terms of the proposed activities between and beyond the counties; % of targeted beneficiaries who have participated in related training and carry out their own means of M&E and continued improvement related to the measures they have adopted through participation in the Project (disaggregated by gender). Target values: At least 20% of both male and female participants in year 1; at least 40% of both male and female participants in year 2; at least 60% of both male and female participants in year 3, and at least 70% of both male and female participants in year 4. **No result** on this indicator was available at the MTR as it has not been operationalized.

All the responsible institutions at the local level and participating farmers involved in the SISs and the municipal plans have been trained on the Project indicators and monitoring and evaluation (M&E) techniques that are applied across the Project activities. By the MTR, however, the indicator has not been measured as during implementation the referred M&E processes have resulted to be more institutional than individual in nature. The PIU/MAyDS informed the WB that all the responsible institutions at the local level carry out M&E activities as integral part of implementing the pilot activities in the SISs, yet systematic reporting on the results remains work in progress.

Component 4, Intermediate Outcome: Improved local, provincial and national level technical and institutional capacity to sustain, scale up and replicate the Project outcomes

4.1 Developing a Sustainability Strategy; Number of assumed institutional commitments for the continuity and sustainability of the Project results per sector and activity. Target value: At least one institutional compromise for continuity of the Project results per sector and activity at the end in year 4. At the MTR, two years after the Project Inception Workshop, the result was **13**.

The result reflects the following 13 institutional commitments: SMN, INTA, CERZOS-CONICET, and UNS participating in the IEWS (4); a municipal ordinance on a municipal sustainable forage production plan signed and operational in the Municipalities of Puan, Villarino and Patagones (3); the national Ministry of Social Development, National Roads Agency and Municipality of Villarino participating in the pilot program on green employment (3); a Municipal Nature Reserve (protected area) established in the Municipalities of Puan and Villarino (2); and Municipal Environmental Agency created and functioning in the Municipality of Villarino (1).

Output 4.1.1: Creation of a policy framework taking into account regulatory requirements and resources needed to continue the Project's main activities, and a commitment to disseminate the experiences and lessons learned; Guidance material produced on critical pieces of policy framework, piloted adaptation practices, and potential sources of financing to support continued efforts to promote climate resiliency at different administrative levels and facilitate dissemination of Project results. Yes/No. Target value: Yes, at the end in year 4. At the MTR, two years after the Project Inception Workshop, the result was **Yes**.

Until the MTR, beyond abundant communication materials (leaflets, pamphlets, posters, etc.), the Project developed a document that systematizes the three (3) municipal sustainable forage production plans. Otherwise, the bulk of work on guidance material on key pieces of the policy framework, piloted adaptation practices, and potential sources of financing to support continued efforts to promote climate resiliency will take place in 2018.

Component 4, logically, was the least advanced of the components by the MTR. The main activities conducted included four (4) interinstitutional work fronts on policies/plans that aim to develop/scale-up results that transcend the Project implementation period:

1) The IEWS that was focusing on improving the report presentation and dissemination and consolidating the institutional set-up;
2) Villarino Reforestation Plan that counts with innovative collaboration with the national Ministry of Social Development and the National Roads Agency;
3) Municipal sustainable forage production plans under work in the three beneficiary Municipalities to support recovery of degraded soil and natural pastures through use of perennial and nitrogen fixing species; and
4) A preliminary dialogue within the Governmental Committee on Climate Change (GCCC), including elaboration of national adaptation plans, particularly on agroindustry, as well as sector plans and funding proposals for the Nationally Determined Contributions (NDCs).

In line with the above results, many activities have been developed jointly in partnership with different local and national institutions, aimed at improving particularly local and national level technical and institutional capacity to sustain, scale up and replicate Project results. Improvement of institutional capacity at the provincial level was scarce by the MTR, taken the limited participation of OPDS in Project activities.

By the MTR, the Villarino forestry plan on plantation of tree barriers along roadsides by the National Roads Agency, national Ministry of Social Development and Municipality of Villarino has been formalized (i.e. a formal instrument has been signed by the parties). The plan will scale-up the pilot activities financed by the Project, aimed at strengthening the municipal tree nursery in the short term, and reducing wind erosion in the long term.

QUALITY OF IMPLEMENTATION, INCLUDING FINANCIAL MANAGEMENT

The Project was approved by the World Bank on September 20, 2013 and declared effective on May 27, 2014. Project implementation suffered from significant delays as the first disbursement took place in March 2015, a year after effectiveness, and the PIU became legally operational only in July 2015. These delays were due to slow bureaucratic processes coupled with issues related to the change of the responsible authorities within the then Secretariat of Environment and Sustainable Development (SAyDS) in December 2014. The SAyDS was upgraded to the current Ministry of Environment and Sustainable Development (MAyDS) at the end of 2015. Since early 2016, the PIU and the responsible MAyDS authorities and staff have enjoyed a notable learning curve and worked with outstanding commitment to make the Project implementation succeed.

Political changes within the SAyDS/MAyDS and differences between the SAyDS/MAyDS at the central and the OPDS at the provincial level had a considerable impact in Project management during its initial years. The PIU needed to address multiple challenges and coordination problems, and the Project suffered from lack of close monitoring and proper strategic guidance from authorities. The combination of the Project (i) being a small-scale grant operation but pilot in nature and covering various quite complex work fronts, (ii) needing to comply with three (3) differing sets of operational rules and procedures, those of the AF, WB and the national Government, and (iii) having limited resources for management and support/supervision has reflected in implementation challenges.

Once the first disbursement of grant proceeds was made, the PIU was established. The PIU team suffered initially of lack of experience and executing capacity. Quite promptly thereafter, however, it has been working at a satisfactory pace together with key stakeholders and local counterparts. It has also coordinated with other related national and provincial institutions operating in the Project area. Considering when the PIU became effective and operational and leaving aside the initial delay in the setup of the Project's governance structure, caused by the changing political context at the time, the pace of the execution since mid-2015 until the MTR is deemed satisfactory. Said initial delay, however, affected the Project performance negatively in terms of its projected

implementation schedule. Consequently, the PIU has faced challenges to keep up with the expected results within the Project's life-span, particularly as some activities in the field are strictly constrained by biological cycles. Particularly, agricultural phenology affects the expression of the ground results of the SLM practices.

The Project's institutional set-up is complex due to (i) political and operational issues between the MAyDS and OPDS, which was expected to provide the Project's institutional basis in the field and, related with the same, (ii) the PIU facing an intense work load particularly on procurement and interinstitutional coordination and collaboration as it leads a diverse set of pilot activities from the capital city with challenging logistics at the local level. Notwithstanding, the complexity related with interinstitutional work provides the Project with potential for strategic action with interesting replication and scale-up chances in terms of promoting policies and measures geared to increase climate resilience through SLM and fight against desertification and biodiversity loss.

Extensive consultative, participatory and bottom-up planning processes were conducted during the first year of actual implementation to involve key stakeholders and local counterparts and ensure their ownership of the planned actions. On the other hand, the participatory process embedded within the original Project design, which intended to secure an integrated approach to promoting change in awareness and behavior across and beyond the directly targeted municipalities, resulted in a diverse set of activities, agreements and investments, viewed with a "Christmas tree" label by the most critic observers. During a technical visit conducted in the field in August 2016, Project activities across the SISs still seemed disperse. It was agreed with the PIU that more effort was needed to link and intertwine them to come up with robust results in terms of the Project objectives. By the end of the MTR process, the Project has gained a clear storyline on its essence and the activities shape and increased alignment through preparation of various presentations and reports. It became notable the Project had suffered of limited presentation of its actual storyline as the PIU and the WB TT focused on executing procurement and getting disbursements started and flow.

The progress achieved in the implementation of the operational action plans proposed by the PIU for the past years started to gain pace particularly in early 2017. Disbursements evolved from 13.5 percent in March 2015 to 24.8 percent in September 2016, and 29 percent at the MTR mission in April 2017 (*being at 50 percent in January 2018*). The updated disbursement estimates of the remaining 71 percent of the grant proceeds at the MTR were: USD2M in 2017, divided in five (5) USD400K disbursements in April, May, June, August and October, and the thereafter remaining USD802K in 2018, divided in disbursements of USD400K in May and USD402K in October.

The targeted disbursements for the remaining implementation period are major, yet the main and most challenging bulk of the necessary procurement work is already at an advanced stage. This included e.g. the purchase of meteorological stations that will complement the existing stations managed by the SMN. Preparation of the bidding documents implied a singular effort from the PIU that led a careful analysis on the optimal locations of the new stations based on the ground conditions and prospects of the necessary monitoring and maintenance, while securing full technical consistency within the network of the existing meteorological stations in the area. During the MTR, the PIU voiced a strong demand for additional human resources for procurement, and an additional assistant was hired as promptly as possible thereafter. In general, procurement has required and benefitted of inputs across different profiles working on the Project from the General Coordinator to technical and fiduciary staff.

Regarding financial management (FM) of the grant proceeds, the Project performance has been rated Satisfactory during most of the active implementation period. The only external audit report until the MTR, conducted by AGN, the national Supreme Audit Institution, was presented to the WB timely by mid-2017 with unqualified opinions given by the auditors. The audit covered an exceptional period from January 1, 2015 till December 31, 2016 to cover the initial low-activity implementation period. In December 2016, the PIU lost the FM specialist and the contracting of a new one took until May 2017. This situation caused the FM rating to fall to Moderately Satisfactory during the MTR. During the first half of 2017, the PIU gave a recognizable effort to maintain acceptable FM arrangements to provide quality and timely financial information, supported by MAyDS fiduciary staff. Further, the actions agreed to improve the PIU's FM area during the MTR mission were completed within the expected timeframe.

By the MTR, the burn rate of the categories of eligible expenditures differed greatly. Particularly, the resources budgeted for consultants' services were about to reach their ceiling, which the GoA requested to be set at a minimum when the Project design was appraised for negotiations after its approval by the AFB. The MTR concluded that a prompt reallocation of the grant proceeds across the eligible expenditure categories was needed to continue Project implementation in line with the original Project design. Subsequently, the PIU/MAyDS requested the necessary reallocation across the disbursement categories as presented in a table in the last section of the present MTR report on the restructuring needs.

The increase in the funding allocation for consultants' services was needed e.g. for covering a major qualitative upgrade of the IEWS that will be delivered by the National Meteorological Service (SMN). Said upgrade will include three main components: (i) real-time monitoring of the beginning and geographical extent of drought through climatic and satellite data and indices; (ii) forecasts of the possible temporal evolution of drought; and (iii) participatory design of plans and actions for the issuance of early warnings destined to sectors affected by drought to allow managing the related risks and mitigating the main impacts. Regardless of the importance of the agricultural sector for the Argentine economy, there is currently no drought warning system in place and, in case successful, SMN is committed to replicate/scale-up the SWBA pilot.

Consultants' services are also needed for systemizing and disseminating Project results, a key activity as this pilot Project advances from initial implementation to analyzing results and collecting lessons learnt. The necessary funding will be made available from the unallocated funding and by decreased funding mainly for training. Training will in every case remain an important part of the Project activities, but it requires less funding than allocated for it during Project Appraisal.

ASSUMPTIONS MADE DURING THE PREPARATION STAGE, PARTICULARLY OBJECTIVES AND AGREED UPON INDICATORS, AGAINST CURRENT CONDITIONS

Relevance of the Project Development Objective

During the MTR, the Project's progress and relevance against current institutional and on-the-ground conditions and priorities were analyzed against the five outcomes embedded in the formulation of **the Project Development Objective (PDO)**: (i) contribution to reduction of climate and man-made vulnerability of the agroecosystems in the Southwest of the Buenos Aires Province; (ii) increased adaptive capacity of key local institutions; (iii) increased adaptive capacity of key local actors; (iv) piloted climate resilient and sustainable land management practices; and (v) dissemination on climate resilient and sustainable land management practices. **The PDO and all the embedded outcomes were confirmed to remain achievable and relevant at the national, provincial and local level**. For example, the IEWS stood out as an innovative tool promoted by the MAyDS for its relevance considering serious rural fires suffered in December 2016 by app. 200,000 ha in the Southern part of the Buenos Aires Province (as well as still in wider areas in the surrounding provinces of La Pampa and Rio Negro). Further, the Project has provided useful experience and lessons learnt for a US$150M loan for Integrated Management of Agricultural Risks (P162316), a WB project whose concept note review took place in April 2017 right after the Project MTR mission.

Overall, it was noted that a tax elimination on wheat production soon after the change of the GoA administration in December 2015, and humid conditions above the average precipitation in parts of the SWBA during three (3) consecutive years after Project effectiveness in May 2014 have benefited farmers in the area regardless of their participation in the Project. **Beneficial climatic conditions have added challenge to Project's key messaging to farmers and overall communication and reduced the short-term relevance of/interest in Project activities particularly amongst farmers that are not direct beneficiaries of the investments. However, as described below, the commitment by direct beneficiaries and the responsible institutions at local level to the expected long-term Project impact on increased resilience to climate variability and change remains**. The Project will direct growing effort to disseminating results and lessons learnt of the piloted SLM technologies during the remaining implementation period to broaden its scope of direct engagement.

Results Framework

Overall, and as typical for MTRs conducted by the WB, the MTR focused on analyzing the quality of the original RF and "smartness" of the indicators[6]. With support by a WB Sr. Monitoring and Evaluation Specialist, **the logic of the embedded results chain was strengthened through mapping each indicator in the revised RF against the five (5) outcomes embedded in the PDO, identified above, as well as the four (4) revised PDO indicators**. Some needs of direct drop-out/replacement of indicators and minor-scale issues in write-ups and definitions were identified, as well as a couple of too ambitious end targets. Particularly, heavy work load due to the basic implementation tasks over the PIU resulted that active engagement/outreach in the Project's indirect intervention area of nine (9) Municipalities within the SWBA proved impossible mainly due to lack of time, but also due to the geographical extension and numerous and diverse stakeholders involved. **Some of the identified adjustment needs within the RF are discussed below in detail, related with the scope of the results deemed achievable at the MTR**. Additionally, a full draft proposal of the revised RF is included in Annex 4.

The MTR was used to **revise the list of the targeted institutions and the scope of the data sources used for measuring the first PDO indicator**, "Number of the targeted institutions that reflect institution-specific adaptation needs in their budget allocations to increase their capacity to address climate-related challenges". Taken that (i) INTA resulted the responsible institution in charge of eight (8) out of the 11 SISs formulated through a participatory process, and (ii) impacting official curriculums across local schools/educational institutions proved a non-viable output for the time required by the applicable administrative process and low cost-effectiveness in terms of the effort it would have taken from the PIU, the original list of the targeted institutions was proposed to be reduced by removing the 1) National Observatory of Land Degradation and Desertification, 2) Regional Council for development of the Southwest of the Buenos Aires Province (PDSO), 3) School of Agronomy of the University of Buenos Aires (FAUBA), 4) Provincial Public Administration Institute (IPAP), 5) National Public Administration Institute (INAP), 6) Regional School of Bahia Blanca of the National Technological University (UNT), and 7) Ministry of Provincial Education. On the other hand, the following were proposed to be included in the list: 1) National Meteorological Service, 2) National Roads Agency, and 3) Carlos Spegazzini Agrarian School. The inclusion of the national level institutions is of key importance for the replication and scale-up potential of the respective Project activities, namely data quality and institutional strength of the IEWS and road side reforestation to reduce wind erosion.

Further on the referred PDO indicator, the MTR concluded that its write-up is too narrowly focused and difficult to evidence as specific budget allocations are not always reflected in the necessary level of detail to allow their direct association to individual actions or projects. Thus, the scope of the indicator/data sources to measure its progress was proposed to be amplified from mere budget documents to also other types of formal institutional documentation, including organization charts and functional/operational structures such as HR and work programs.

Regarding the intermediate outcome indicator (IRI) of Sub-component 1.1, Creating Institutional Tools for Climate Resilience, "% of targeted beneficiaries satisfied with more climate resilient agricultural services (disaggregated by gender)", the PIU had not acted to measure it, given the still initial stage of implementation of the on-the-ground investments, and the related baseline information had neither been established. At the MTR, the PIU suggested and the WB agreed that, **in this context, "agricultural services" refers to the provision of the quarterly IEWS reports**. Further, "percentage of targeted clients" was agreed to refer to the percentage of the 408 farmers who participate in the 11 SISs and the municipal sustainable forage production and reforestation plans established with Project support. The survey on the respective degree of satisfaction among the referred beneficiaries was agreed to be conducted by the end of March 2018, after the delivery of the IEWS reports would have consolidated.

[6] The concept of "SMART" indicators in terms of Specific, Measurable, Achievable, Relevant, Time-bound.

Regarding the IRI of Sub-component 1.2, Promoting Climate-smart Socio-cultural Approaches to Land Management, "% of consulted people who report on modification(s) in their Project-related practices (disaggregated by gender)", the indicator status resulted the same as that of the intermediate outcome indicator of Sub-component 1.1. The WB agreed this IRI results unclear in terms of how to interpret and use it in a SMART way, and that it should thus be revised or dropped. Further, the targeted population for the indicator was the whole population of the three (3) directly benefitting Municipalities, app. 80,000 inhabitants. However, most of said population lives in urban areas, while the Project mostly works with rural farmers whose yields depend on vulnerable agroecosystems. The 408 farmers that participated directly in Project activities by the MTR represent a minor, probably not statistically representative fraction of the total population. Further, it is considered that measurable behavioral changes at the referred scale would require stronger inputs and longer implementation period than those available under the Project.

Participating Approach and Resources Available for Core Implementation Work

A key assumption in the Project proposal was that success of concrete adaptation measures during and after Project implementation would depend on the respective level of ownership by the beneficiaries and the responsible institutions at the local level, expected to then be manifested through processes of replication, scale-up and/or mainstreaming of the piloted activities. Consequently, the Project design emphasized the importance of **a participatory approach and consultation, capacity building and institutional strengthening** among relevant actors to create enabling conditions for success of the concrete adaptation measures to be financed. Particularly, capacity and institution building were considered foundational for the intended scale-up and replication of Project outcomes in the vast region where indirect impacts are expected to take place. This assumption has proved pertinent and the results are promising. For example, **as the start of concrete investments in the field took longer than expected, app. half of the beneficiary farmers proceeded meanwhile with preparatory work with their own resources**.

The Project has numerous stakeholders that made the participatory Project planning a time-consuming and complex process. As stated above, the resources and effort the PIU invested in participatory planning have been of critical importance for the Project's overall success prospects. Further, **a properly implemented participatory approach usually provides collateral benefits to the target groups**, such as fostering organizational and individual capacity and skills. These benefits tend to result invisible through project indicators and monitoring, while the time needed to sow such benefits easily reflects negatively in a project performance. It is a common problem that the time needed for initial organization and work together with the selected beneficiaries is not sufficiently reflected in the implementation schedule even in cases where participation is deemed an integral part of the project design. As a lesson learnt, an IRI would be useful to visualize the progress achieved in participatory planning processes, buy-in by stakeholders and related merits. However, finding a SMART indicator for monitoring such soft aspects is a challenge.

Further, the Project design included too positive and/or ambitious assumptions in terms of **the time and effort needed to carry out the core implementation work**; especially the participatory definition and planning of the inputs to be procured, i.e. the necessary and optimal goods and services to implement the planned investments in each SIS. The small scale of the Project investments with limited and in some cases null availability of local providers caused various backlashes in the execution schedule as procurement processes failed. Scarce resources to hire field staff to support and monitor the SIS execution and maintain close dialogue with the targeted municipalities and the responsible institutions across a wide geographical area took it stock, partly due to challenging logistical conditions in the field. Consequently, the PIU needed to concentrate efforts in more reduced set of activities than those originally projected, including direct outreach to the nine (9) Municipalities in the Project's indirect intervention area.

Economic Assessment

The Project's economic assessment was conducted under the assumption that there is a *ceteris paribus* situation: no change in other variables but the adaptation measures on SLM practices financed/promoted by the Project; not

even in climatic conditions. However, to estimate impacts of potential adverse climatic situations particularly in farmers' income, the economic assessment included a sensitivity analysis that considered three (3) climate scenarios: (i) moderate drought, (ii) severe drought and (iii) extreme drought. In all the scenarios, the analysis concluded the Project would exceed the limits of the minimal profitability requirement, since the Economic Internal Rate of Return (EIRR) remained above the Discount Rate. This means that farmers' situation is expected to be better *with* than *without* the Project in presence of either continuous moderate, severe or extreme droughts within the next 10 years.

At the Project MTR, there was still no chance to assess the economic impact of the thus far Project results as the implementation of the prioritized adaptation measures was at an initial stage on the ground, and bio-physical changes require time to manifest.

FACTORS AFFECTING THE ACHIEVEMENT OF OBJECTIVES

Local (provincial and municipal) and presidential election campaigns took place during 2015 in Argentina. As typical for political transition periods, the same implied a strong constraint to Project implementation, taken political ownership of and leadership for the minor-scale yet ambitious pilot operation had to be established in a context of great uncertainty and re-established after the elections, which led to a major change in the GoA administration. As referred earlier, these political factors impacted the initial implementation after the WB approval of the Project in September 2013 in a strongly negative manner in terms of lost time and credibility. The first disbursement of the grant proceeds in March 2015 was delayed due to several replacements of national authorities within SAyDS/MAyDS both before and after the elections and change of the GoA administration that resulted in multiple changes of internal procedures and the political authorities in charge. These changes implied that the PIU needed to hire designated fiduciary specialists instead of being able to rely on respective services by a centralized unit within the SAyDS/MAyDS. Yet assessed by the WB during Project preparation, said unit was never formally established and got dissolved before the Project became effective, after the respective champion left the SAyDS. Consequently, the initial procurement processes suffered delays until experienced staff was incorporated in the PIU.

Beyond the fact that the Project outputs until the MTR reflected strong participatory engagement by beneficiaries, the responsible institutions at the local level, and other stakeholders e.g. in the education sector at the municipal level, **political factors hampered the projected collaboration with OPDS, the provincial environmental agency, as well as the provincial Ministry of Agroindustry** (MAI)[7], two key stakeholders for the Project agenda. **The central role originally envisaged for OPDS as the lead agency at the provincial level did not materialized as expected** during Project preparation. Change of the responsible staff within OPDS before implementation started brought along substantial political differences between the national and provincial authorities. OPDS also voiced a frustrated claim to be able to directly manage a share of the grant proceeds; an option that had been fully discarded during Project preparation based on negative previous experience and unnecessary complication of a small grant's fiduciary arrangements. Consequently, the PIU needed to develop alternative strategies and partnerships to establish solid working relations with the targeted municipal governments to overcome the lack of active participation by the principal provincial institution. Further, as OPDS has not counted with any office in the field or specialized field staff during the Project implementation, the PIU contracted two local staff that have worked closely with the targeted municipal governments and the responsible institutions at the local level. Since the first year of implementation when the PIU/MAyDS made itself known and trusted among local actors, Project activities have proceeded smoothly even with limited participation by OPDS and/or MAI.

Until the MTR, OPDS had not been involved in strategic or technical level decision-making on Project activities during implementation, and its participation was limited to specific knowledge sharing activities. High-level meetings between representatives of the MAyDS and OPDS were conducted periodically to strengthen the involvement of the latter, but with no notable success. In line with the stated, OPDS did not participate in the MTR mission in any way; a fact that triggered the WB to claim clarification on the OPDS' actual role in the Project. In July 2017, a change of

[7] Provincial Ministry of Agricultural Affairs (MAA) during Project preparation.

the OPDS authorities opened a new window of opportunity to reestablish said role. The description of the Project's institutional arrangements was reviewed and adjusted in the Operational Manual (OM) to provide OPDS a technical and guiding role based on the level of activity it considers useful and viable within the Project framework and during its remaining implementation period. In the revised OM, the Project maintains the door open for OPDS, yet it does not depend on its action. In October 2017, OPDS endorsed the revised implementation arrangements and assigned the Project its principal and secondary representatives in line with the revised OM.

Regarding MAI at national and provincial level, the earlier referred WB Argentina Integrated Management of Agricultural Risks pipeline operation has provided a welcomed opportunity for additional communication between the Project/MAyDS and the MAI at both levels. *However, by early 2018 this new opening to exchange experience and lessons learnt, facilitated by the WB as a convening agency, has not implied a major shift in the prevailing institutional relations. This is understood partly due to a level of territorial rivalry when targeting rural farmers, partly as fluent interinstitutional collaboration is not a natural/common feature of the idiosyncrasy of Argentine institutions.*

The Project Coordinator, who has been the technical level Project champion since its initial preparation stages, has played a key role in various occasions in maintaining the Project's momentum and the needed trust in its projected results. In operational terms, the PIU needed to gain the skills and experience necessary to run an operation under the WB policies through a steep learning curve that implied hiring of external consultants and a lot of implementation support by the WB TT.

M&E SYSTEMS AND THEIR IMPLEMENTATION

Issues in the RF. After implementing the Project's RF in practice and, with hindsight, without having paid sufficient attention to the quality of said implementation early on, the PIU/MAyDS and WB concluded at the MTR that the RF includes several issues as presented below:

1) The number of the indicators particularly within the WB Operations Portal appeared excessively high: The original RF design includes three (3) PDO-level indicators, five (5) outcome and 10 output indicators. Within the structure of the WB Operations Portal, the total of 15 outcome and output indicators get all reflected as same level intermediate results indicators (IRIs). Further, those of said IRIs that were expected to provide gender disaggregated results were added the respective custom breakdown indicators; something that ended up increasing the total number of the IRIs up to 30;
2) Across the myriad of the two levels of numerous IRIs, the logical result chain from them to the PDO indicators and the PDO was deemed to need strengthening;
3) As logical based on the original RF design that didn't follow the current structure of the WB operational system, most of the peer reviewers at the MTR criticized that many of the IRIs are output indicators. This added to more general criticism on the poor presentation of the RF, where achieved results in early 2017 were overall still low;
4) As described earlier, some indicators were identified as doomed not to achieve their end targets as defined during Project preparation, and a couple of other indicators were deemed insufficiently SMART; and
5) The formulation of some of the indicators was deemed subject to interpretations and to thus require/benefit from further definition.

The MTR identified some issues also regarding actual monitoring of the indicators:

1) The PIU had changed the criteria to assess a few indicators in different moments;
2) In some cases, the evidence gathered to support the reported results was not considered strong enough;
3) Regarding results of the most substantive Project investments on the SISs under Component 2, all the SISs have defined their indicators for monitoring and evaluation. Said indicators are aligned with Project's official indicators, but they cover a broader variety of aspects, and some of them particularly on biological or

biophysical aspects are too ambitious and thus not viable to measure during the limited implementation period after the concrete on-the-ground investments/activities took place.

On the positive site, the PIU has implemented a system to standardize procedures for field-level planning and work, e.g. through an application of a form that covers environmental management/safeguards, indicators, schedules, and procurement related information. Further to facilitating dialogue amongst the beneficiaries and local counterparts, the form has facilitated related analysis, exchange, adjustment and evaluation procedures of the PIU/MAyDS and WB. The systematized planning procedure has also provided an important set of lessons learned gathered and analyzed by the PIU and shared with the stakeholders through workshops on project planning; all contributions to capacity development at the local level.

As commented before, the limited human resources available for an integral and innovative pilot as this Project were not sufficient to think through and successfully carry out all the planned activities, including as early as possible adjustment of the RF, once the implementation experience started to clarify the Project reality versus easily too optimistic assumptions taken during the preparation stage.

Delays have occurred with the submission of the applicable progress reports both to the WB and the AF. By the MTR it was painfully clear that this small pilot operation struggled under disproportionate reporting requirements under three (3) different set of rules and practices; those of the WB, AF and GoA. In general, the Project has set the priority in promoting on-the-ground results, attending the responsible institutions at the local level, and serving the beneficiaries that, for their part, don't usually comprehend nor want to engage in issues related with Project management.

KEY RESULTS OF THE MID-TERM REVIEW; PROPOSED PROJECT RESTRUCTURING

The Project MTR concluded on a proposed restructuring to strengthen the Project design and operational parameters so that it can deliver its expected outcomes as fully as possible. Based on the Project implementation status and the reasons and justifications stated along the present MTR Report, a level II minor restructuring in the applicable WB terms is proposed for the Project in the following aspects:

Change in Results Framework

An overall, yet still a minor-scale revision of the RF is proposed to (i) reduce the number of the indicators; (ii) adjust some of the indicator write-ups and/or definitions/scope to improve their SMARTness (Specific, Measurable, Achievable, Relevant and Time-bound); and (iii) strengthen the logical results chain from outputs to intermediate outcomes and PDO outcomes in terms of monitoring progress towards achieving the PDO. **Annex 4: Draft Revised Results Framework** presents the proposed adjustments in detail, following the WB format used to adjust a RF in a Restructuring Paper. The format reflects the mapping exercise to concretize on which expected PDO outcome(s) each PDO indicator contributes and on which PDO indicator(s) each IRI contributes.

Change in Components; Outputs and Cost

To focus the execution efforts cost-efficiently across the Project's varied work fronts and achieve maximum outcomes of the PDO, the MTR concluded that a minor simplification of the Project design is warranted by eliminating the following two (2) outputs:

1) Under Sub-component 1.1, Creating Institutional Tools for Climate Resilience; **Output 1.1.3: Regional Consultative Observatory of Public Policies on Climate Change and Desertification**; and
2) Under Sub-component 1.2, Promoting Climate-smart Socio-cultural Approaches to Land Management; **O Output 1.2.2: Teacher training program for environmental education specifically designed for the zone**.

Change in Institutional Arrangements

Two (2) aspects of the originally projected and assessed institutional arrangements are proposed to be revised to update them based on the situation on the ground:

1) OPDS, the Provincial Agency for Sustainable Development is proposed to be assigned a technical and guiding role based on the level of engagement it considers useful and viable within the Project framework and during the remaining implementation period. The Project won't depend on any action by OPDS; and
3) The Project's fiduciary tasks will be officially assigned to the PIU to update the originally planned arrangement where they were to be managed by a dedicated SAyDS unit operating under JGM.

Reallocation between Disbursement Categories

The Project requires reallocation among Disbursement Categories mainly to increase the funding for consultants' services. The reallocation will allow the Project implementation to deliver the original Project design in budgetary terms. The following table presents the original and revised Eligible Expenditures per Disbursement Category. The operating costs will remain at five (5) percent of the total grant amount, and all percentages of expenditures to be financed (inclusive of taxes) will remain at 100 percent.

Category	**Amount of the Grant Allocated (expressed in USD)**	**Revised Amount of the Grant Allocated (expressed in USD)**
(1) Goods	1,620,446	1,970,000
(2) Consultants' services	284,232	950,000
(3) Non-consulting Services and works	884,611	632,190
(4) Training, Travel and Workshops	816,133	210,000
(5) Operating Costs	198,010	198,010
(6) Unallocated	156,768	0.00
TOTAL AMOUNT	3,960,200	3,960,200

Change in Disbursement Estimates

The revised Disbursement Estimates are presented in the following table by WB fiscal years (FY). The proposed numbers reflect the materialized actual execution through FY17 and the current estimates of the forthcoming disbursements.

Fiscal Year	Original Estimate	Actual/Proposed
2014	0.00	0.00
2015	500,000	0.00
2016	1,500,000	500,000
2017	1,500,000	884,436
2018	460,000	1,951,204
2019	0.00	624,560

Change in Procurement

Per a regional WB decision, the Project's procurement needs to be changed as a part of a restructuring to include the use of the Procurement Regulations for Investment Project Financing (IPF) Borrowers (July 2016, revised in November 2017), replacing the former Procurement and Consultant Guidelines (January 2011). To this end, the PIU has prepared a simplified Project Procurement Strategy for Development that results acceptable to the WB. The document describes the planned procurement of goods and consultancy services that are of low risk and low amount and will be defined in the Procurement Plan as agreed upon with the WB.

Change in Grant Closing Date

Along the MTR dialogue with the PIU/MAyDS, the WB has been requested to consider a potential Project extension by a minimum of six (6) and ideally by 12 months to strengthen key Project results and secure an optimal Project closure. The Project could be able to disburse the full grant even without a Closing Date extension. However, if it could recover part of the implementation period lost due to the initial delays and consequently implement actively over four (4) years across 2016–2019, stronger and higher-quality results would be expected particularly in terms of physical progress of the SLM practices and tree planting, as well as the overall sustainability prospects of the promoted technical and political initiatives, which will require strong initial footing and continued interinstitutional collaboration.

Both the WB and GoA agreed during the MTR that is was still too early to decide upon a Project extension. In case of a continued interest by the GoA, it was agreed the GoA will send the WB an official request for a Closing Date extension around March 2018.

Annex 1: Summary on the Specific Intervention Sites under Component 2

SIS Title	Type of Intervention	Location	Responsible Institution
Semi-arid Geographic Intervention Area (GIA)			
1) Naposta-UNS	Development of a service unit for sustainable land use and management; experimental site	UNS Naposta Field, Bahía Blanca	National Southern University (UNS by its Spanish acronym)
2) Naposta-CERZOS-CONICET	Improvement and functional dynamics of natural grasslands of the Southwest of the Buenos Aires Province; experimental site	CERZOS Naposta Experimental Field, Bahía Blanca	CERZOS-CONICET
3) Agroecological Unit Bordenave-San German	Generation of processes and techniques to restore ecosystem attributes that increase adaptive capacity in the Southwest of the Buenos Aires Province; experimental site	Bordenave-San German, INTA AES Bordenave and three (3) stations in Southern part of the Municipality of Puan	INTA, Agricultural Experiment Station (EAS) Bordenave
4) Bordenave-San German Dryland	Implementation of soil management techniques through land zoning and soil mapping in agricultural and mixed systems in the Municipality of Puan	San German, Municipality of Puan	INTA, AES Bordenave
5) Levalle Dryland	Implementation of soil management strategies through fertilization with Nitrogen fixation in pastures and afforestation in fields	Levalle, Medanos, Municipality of Villarino	INTA, Agroecological Station of Hilario Ascasubi
Arid GIA			
6) San Jose Dryland	Reduce vulnerability to wind erosion by improving soil structure to achieve better pasture implantations in fields	Central eastern part of the Municipality of Patagones (area with maritime influence)	INTA, Agroecological Station of Hilario Ascasubi
7) Patagones Rangelands; Monte Biome	Strengthening of biodiversity and ecosystem services in pastures in rangelands/monte biome systems	Central western part of the Municipality of Patagones (zone of monte biome)	INTA, Agroecological Station of Hilario Ascasubi
8) Apiarian Patagones	Beekeeping as an instrument for enhancing and valorization of ecosystem services in the Southern Patagonia	Southern part of the Municipality of Patagones	INTA Rural Extension Agency Patagones and Agroecological Station of Hilario Ascasubi

9) Agrarian School Carlos Spegazzini	Model for diversification and sustainability of traditional agricultural systems through incorporation of olive groves	School terrain in Carmen de Patagones and agricultural training site near Cardinal Cagliero, Municipality of Patagones	Carlos Spegazzini Agrarian School n°1 (secondary education)
Irrigation GIA			
10) Pradere Irrigation	Integral soil management, afforestation and apiarian production in irrigated fields of small farmers	Colony "Los Álamos", Juan A. Pradere, Municipality of Patagones	INTA Agroecological Station of Hilario Ascasubi
11) Ascasubi Irrigation	Improvement of irrigation efficiency, recovery of saline soils, afforestation, and crop management in irrigated fields of small farmers	Southern part of the Municipality of Villarino	INTA Agroecological Station of Hilario Ascasubi
Municipal Plans			
1) Extension Program of the Argerich Tree Nursery; Municipal Forestry Plan	Afforestation for environmental improvement and prevention of wind erosion	Municipality of Villarino	Municipality of Villarino
2) Puan Municipal Tree Nursery	Strengthening of the municipal tree nursery and afforestation plan	Municipality of Puan	Municipality of Puan
3) Sustainable Forage Production Plan	Environmentally geared forage production to fix soil and reduce wind erosion through increased topsoil coverage	Municipality of Patagones	Municipality of Patagones

Annex 2 Operational Comparative Numbers across 2015–2017

Operational Comparative 2015–2017 in Key Numbers

CONCEPT	2015	2016	2017
PIU – PROJECT-PAID CONTRACTS IN BUENOS AIRES + TERRITORY	4 + 1	4 + 2	7 + 3
PIU – COUNTERPART CONTRACTS	2	3	4
DISBURSED	500,000	657,000	
PROYECTED DISBURSEMENTS			2,000,000
FUNDS COMMITTED	180,000	800,000	
FUNDS PAID	158,000	660,000	
NRO OF PROCUREMENT PROCESSES OF GOODS	2	10	10
NRO OF CONTRACTING PROCESSES	6	17	29
NRO OF PROVIDERS INVITED	30+	220+	300+
NRO OF PROVIDERS AWARDED	8+	40+	50+
NRO OF REPORTS REVIEWED/TO REVIEW	4	12+	60+

Annex 3: Mid-Term Review Mission Agenda

Lun 03	ACTIVIDAD, PARTICIPANTES, LUGAR
10.00	**Reunión de Inicio de la Misión** **Participantes:** Representantes del Banco Mundial, Directora Nacional del Proyecto, representantes del Ministerio de Finanzas y de Jefatura de Gabinete, Unidad Ejecutora del Proyecto **Lugar:** Ministerio de Ambiente y Desarrollo Sustentable, San Martin 451, Ciudad Autónoma de Buenos Aires - Presentación general del estado de avance del Proyecto - Revisar el progreso de los acuerdos de la última misión - Revisión Agenda de la Misión, presentación de objetivos y plan de trabajo de la misión
11.00	**Adquisiciones y finanzas** **Participantes:** Representantes del Banco Mundial, Unidad Ejecutora del Proyecto **Lugar:** Ministerio de Ambiente y Desarrollo Sustentable, San Martin 451, Ciudad Autónoma de Buenos Aires - Análisis de dificultades encontradas en los procesos de adquisiciones, lecciones aprendidas - Estado financiero y proyección de desembolsos
13.00	**Almuerzo**
14.30	**Reunión con Firma Consultora a cargo de la realización de la Línea de Base** **Participantes:** Representantes del Banco Mundial, Unidad Ejecutora del Proyecto **Lugar:** Ministerio de Ambiente y Desarrollo Sustentable, San Martin 451, Ciudad Autónoma de Buenos Aires - Presentación de Informes de la Línea de Base del Proyecto - Análisis de la línea de base en función a los indicadores de resultados del Proyecto.
17.00	**Preparación visita al Territorio** **Participantes:** Representantes del Banco Mundial, Unidad Ejecutora del Proyecto **Lugar:** Ministerio de Ambiente y Desarrollo Sustentable, San Martin 451, Ciudad Autónoma de Buenos Aires
21.15	**Vuelo a Bahía Banca** AR2648 Aeroparque – Bahía Blanca Salida 21.15 – Llegada 22.35 Alojamiento en Bahía Blanca. Hotel a confirmar.
Mar 04	**ACTIVIDAD, PARTICIPANTES, LUGAR**
09.00	**Reunión SIAT – Sistema de Información y Alerta Temprana**

	Participantes: Representantes de INTA Ascasubi, INTA Bordenave, UNS, CERZOS, Misión (comprende representantes Banco Mundial, integrantes UEP, representante OPDS) **Lugar:** CERZOS - CONICET - Presentación reportes Pronósticos Productivos. - Análisis estrategia de comunicación del SIAT
11.00	**Visita SEIs UNS - Desarrollo de una Unidad de Servicios para el Uso y Manejo Sustentable de Tierras** **Participantes:** representantes de UNS y Misión **Lugar:** Campo Naposta - Evaluación avances realizados. - Verificación de las inversiones realizadas y trabajos a campo
12.45	**Almuerzo liviano**
16.00	**Reunión Municipio de Puan** **Participantes previstos (a confirmar según agenda):** Intendente y Secretario de Producción del Municipio de Puan, Misión **Lugar:** Municipalidad de Puan - Evaluación avances realizados. - Análisis de pertinencia de productos desarrollados (Feria Villa Iris, capacitaciones, Reporte Pronósticos Productivos SIAT)
17.45	**Visita SEIs** **Vivero en Bordenave. Fortalecimiento de Vivero Municipal y Planes de Forestación** **Participantes previstos:** Secretario de Producción del Municipio de Puan, Coordinador Vivero, Misión **Lugar:** Vivero Municipal Bordenave - Evaluación avances realizados. - Verificación de las inversiones realizadas y trabajos a campo
19.00	**Partida a Médanos.** Noche en Médanos. Horario previsto de arribo a Médanos: 21:30 horas.
Mie 05	**ACTIVIDAD, PARTICIPANTES, LUGAR**
08:00	**Reunión Municipio de Villarino** **Participantes previstos (a confirmar según agenda):** Intendente y Secretario de Ambiente del Municipio de Villarino, Misión **Lugar:** Municipalidad de Villarino - Evaluación avances realizados. - Análisis de pertinencia de productos desarrollados (Feria del Ajo, capacitaciones, Plan de Forestación de Rutas, Reporte Pronósticos Productivos SIAT)

09.00	**Visita SEIs Vivero en Villarino. Fortalecimiento de Vivero Municipal y del Plan de Forestación de Villarino** **Participantes previstos:** Secretario de Ambiente del Municipio de Villarino, Coordinador Vivero, Misión **Lugar:** Vivero Municipal Villarino - Evaluación avances realizados. - Verificación de las inversiones realizadas y trabajos a campo
10:30	**Visita SEIs Levalle Secano: Estrategias de Fijación de Suelo a través de la Fertilización en Pasturas y Forestación en Campo de Productores** **Participantes previstos:** Productores SEI Levalle, técnicos INTA Ascasubi, Misión **Lugar:** Campo de productor (a definir) - Evaluación avances realizados. - Verificación de las inversiones realizadas y trabajos a campo
12.30	**Visita INTA Ascasubi** **Participantes previstos:** Coordinador INTA Ascasubi, técnicos INTA Ascasubi, Misión **Lugar:** INTA Ascasubi - Evaluación avances realizados. - Verificación de las inversiones realizadas - Visita al laboratorio. Almuerzo en instalaciones de INTA
15.00	**Visita SEIs Ascasubi y Pradere Riego** - **Mejoramiento de la Eficiencia de Riego, Recuperación de Suelos Salinos, Forestación y Manejo de Cultivos en Campos de Pequeños Productores bajo Riego** - **Manejo Integral del Suelo, Forestación y Producción Apícola en Campos de Pequeños Productores bajo Riego** **Participantes previstos:** Productores SEIs Ascasubi y Pradere, técnicos INTA Ascasubi, Misión **Lugar:** Campos de productores, uno SEI Pradere y uno SEI Ascasubi (a definir) - Evaluación avances realizados. - Verificación de las inversiones realizadas y trabajos a campo
18.00	**Partida a Carmen de Patagones.** Noche en Carmen de Patagones. Horario previsto de arribo a Carmen de Patagones: 20:30 horas.
Jue 06	**ACTIVIDAD, PARTICIPANTES, LUGAR**
08.00	**Reunión Municipio de Patagones** **Participantes previstos (a confirmar según agenda):** Intendente y Secretario de Producción del Municipio de Patagones, Misión **Lugar:** Municipalidad de Patagones

	- Evaluación avances realizados. - Análisis de pertinencia de productos desarrollados (Fiesta de la Soberanía, capacitaciones, Plan Forrajero, Reporte Pronósticos Productivos SIAT)
09.30	**Visita Campo Plan Forrajero** **Participantes previstos:** Productores Plan Forrajero, técnicos INTA Patagones, Representantes del Municipio de Patagones, Misión **Lugar:** Campos de productores (a definir) - Evaluación avances realizados. - Verificación de las inversiones realizadas y trabajos a campo
11.00	**Visita Campo SEI San Jose: Reducir la vulnerabilidad a la erosión eólica mejorando la estructura del suelo para lograr mejores implantaciones de pasturas en campo de productores** **Participantes previstos:** Productores SEI San Jose, técnicos INTA Patagones, Misión **Lugar:** Campos de productores (a definir) - Evaluación avances realizados. - Verificación de las inversiones realizadas y trabajos a campo (Consultar por almuerzo liviano en Campo Productores, durante reunión)
14.00	**Visita Campo SEI Monte: Mejora de la biodiversidad y los servicios ecosistémicos en pastizales de sistemas ganaderos de monte** **Participantes previstos:** Productores SEI Monte, técnicos INTA Patagones, Misión **Lugar:** Campos de productores (a definir) - Verificación de pertinencia del sitio y de las inversiones propuestas - Evaluación avances realizados
17.00	**Partida a Bahía Blanca.** Noche en Bahía Blanca. Horario previsto de arribo a Bahía Blanca: 20:30 horas.
Vie 07	**ACTIVIDAD, PARTICIPANTES, LUGAR**
08.30	**Partida a Aeropuerto Bahía Blanca**
09.55	**Vuelo a Aeroparque** AR1643 Bahía Blanca - Aeroparque Salida 09.55 – Llegada 11.10
12.30	**Reunión equipo BM – Coordinador Técnico – Coordinador Operativo UEP Proyecto** **Lugar:** Oficina del proyecto, Reconquista entre Lavalle y Tucumán, Ciudad Autónoma de Buenos Aires - Revisar la línea base del marco de resultados y acordar sobre la restructuración de los indicadores; y - Revisar las proyecciones de desembolsos para el año 2017 y hasta el fin de la implementación;

	- Cerrar la discusión sobre la revisión de medio término e iniciar la restructuración subsecuente del Proyecto
Lun 10	**ACTIVIDAD, PARTICIPANTES, LUGAR**
10.00	**Reunión de Cierre de la Misión** **Participantes:** Representante Banco Mundial, Directora Nacional del Proyecto, representantes Ministerio de Finanzas y Jefatura de Gabinete **Lugar:** Ministerio de Ambiente y Desarrollo Sustentable, San Martin 451, CABA - Presentación de resultados de la misión y acuerdo sobre la Ayuda Memoria

Annex 4: Draft Revised Results Framework

Original PDO	Changes	Rationale
To contribute to reducing climate and man-made vulnerability of the agroecosystems in the Southwest of the Buenos Aires Province by increasing adaptive capacity of key local institutions and actors and piloting and disseminating climate resilient and sustainable land management practices.	Each indicator in the revised results framework is mapped against the outcomes embedded in the PDO, identified in the next column, as well as against the four PDO indicators: "PDO Ind. 1", "PDO Ind. 2", etc.	**The PDO** remains relevant for national, provincial and local level actors. It **consists of five outcomes** against which indicators in the results framework are mapped (see further on the list of indicators): **(i) contribution to reduction of climate and man-made vulnerability of the agroecosystems in the Southwest of the Buenos Aires Province;** **(ii) increased adaptive capacity of key local institutions;** **(iii) increased adaptive capacity of key local actors;** **(iv) piloted climate resilient and sustainable land management practices; and** **(v) dissemination on climate resilient and sustainable land management practices**.
Original PDO indicators[8] and units of measure as the PAD	**Revisions**	**Rationale**
PDO Ind. 1: Number of the targeted institutions that reflect institution-specific adaptation needs in their budget allocations to increase their capacity to address climate-related challenges[AF] (Institution)	**Revised**: 'Targeted institutions that reflect institution-specific adaptation needs in their functional/operational structures, HR composition, work programs and others to increase their capacity to address climate-related challenges (Number)'	**The revised indicator aligns to the PDO outcome (ii) on increased adaptive capacity of key local institutions.** The scope of the indicator/the data sources to measure progress is proposed to be amplified from mere budget documents, as specific budget allocations are not always reflected in the necessary level of detail to allow their direct association to individual actions or programs. Rather, this type of information can be visualized in working documents or other formal institutional documentation, including organization charts, functional/operational structures such as HR and work programs. Consequently: 1) the data source/methodology in the results framework is proposed to list an amplified list of means of verification: budget items, organizational charts, programs, specific agreements, etc.; 2) under Additional Information about the Indicator, the list of targeted institutions is proposed to be modified to REMOVE the (i) National Observatory of Land Degradation and Desertification, (ii) Regional Council for development of the Southwest of the Buenos Aires Province (PDSO), (iii) School of Agronomy of the University of Buenos Aires (FAUBA), (iv) Provincial Public Administration Institute (IPAP), (v) National Public Administration Institute (INAP), (vi) Regional

[8] [WB] indicates that the indicator is aligned with a World Bank core indicator at the time of Project preparation, and [AF] indicates the indicator is aligned with the Adaptation Fund Results Framework.

		School of Bahia Blanca of the National Technological University (UNT), and (vii) Ministry of Provincial Education; and to INCLUDE the (i) Spegazzini School, (ii) National Roads Council, and (iii) National Meteorological Service. In the PAD, "institution" is marked as the unit of measure of this indicator; the same is herewith proposed to be officially corrected to be "Number".
PDO Ind. 2: Productive agroecosystems in the pilot sites maintained or improved to withstand conditions resulting from climate variability and change[AF] (Index)	No change	**The indicator aligns to the PDO outcome (i) on contribution to reduction of climate and man-made vulnerability of the agroecosystems in the Southwest of the Buenos Aires Province.** The methodology to implement the index has been operationalized through the respective baseline study completed in August 2017. The index is measured applying 4–6 variables that allow monitoring the most relevant biophysical aspects of the soil subject to Project activities in 11 Specific Intervention Sites, each variable weighted per its relevance to characterize the state of the types of agroecosystems under analysis (dry and semi-dry and those that are irrigated). The variables are: vegetation coverage, apparent density, organic carbon content, removable phosphor, electric conductivity, and exchangeable sodium percentage.
PDO Ind. 3: Farmers adopting improved agricultural technology (Number, disaggregated by gender) [WB AF] (People, male and female)	**New/revised:** Upgraded from intermediate level to PDO level and revised wording to that of the World Bank corporate results indicators. The original wording referred to "beneficiaries" and the final target was 1,400 people. Currently, the achieved result is 1,632 people: 408 farmers participate in the implementation of the Specific Intervention Sites and the municipal sustainable forage production and reforestation plans, and each farmer represents an average family of 4 persons. The new indicator wording requires adjustment of the final target as it now refers directly to "farmers"; based on the original way of calculating the beneficiaries, the respective target value (1,400/4) would be 350.	**The indicator aligns to all the PDO outcomes at some level as farmers that adopt improved agricultural technology contribute to all of them. Directly, it aligns to the PDO outcomes (iii) on increased adaptive capacity of key local actors and (iv) on piloted climate resilient and sustainable land management practices.** This indicator focuses on adoption of an improved agricultural technology; the result of which is typically a full process of information dissemination, awareness rising, training, piloting and consolidating of a new technology that, at the end, in case the process has been successful, leads to its adoption. Consequently, the following definition of the applicable process is proposed to the indicator description to consolidate the indicator: "Improved agricultural technology adoption" is understood in terms of the "adoption" involving a process that comprises four stages: 1) Commitment: verified through the proposal letter of each ISI.

		2) Implementation: verified in the field through physical investments associated with the Project activities. 3) Management and evaluation: verified through field visits and interviews with farmers. 4) Adoption: verified through field visits and interviews with farmers. Within the limited Project implementation period, the monitoring is feasible in terms of the two first stages of the process. Said results will allow to see a trend toward full adoption of the promoted technologies after Project closure. In the PAD, "People, male and female" is marked as the unit of measure of this indicator; the same is herewith proposed to be officially corrected to be "Number".
PDO Ind. 4: Relevant threat and hazard information generated and disseminated to farmers and other stakeholders on a timely basis[AF] (Yes/No)	No change	**The indicator aligns to all the PDO outcomes except of (iv) on piloted climate resilient and sustainable land management practices.** The focus of the indicator is on monitoring proper functioning of the inter-institutional Information and Early Warning System (IEWS) established by the Project, yet many other Project activities equally contribute to timely generation and dissemination of relevant threat and hazard information.
Original intermediate results indicators		
Component 1: Reducing Institutional and Community-level Vulnerability (USD 1.027 M) **Intermediate Outcome: Institutional and community level response and prevention capacities developed to reduce land degradation and desertification and local vulnerabilities of the agricultural sector to climate variability and change**		
Intermediate outcome indicator 1.1, Sub-component 1.1, Creating Institutional Tools for Climate Resilience % of targeted beneficiaries satisfied with more climate resilient agricultural services (disaggregated by gender)[WB] (Percentage)	**Revised:** 'Share of beneficiaries satisfied with information on climate change generated by the IEWS (disaggregated by gender)'	**The indicator aligns to the PDO outcomes (ii) on increased adaptive capacity of key local institutions, (iii) on increased adaptive capacity of key local actors, and (v) on dissemination on climate resilient and sustainable land management practices, and the PDO Ind. 4** The indicator is proposed to be sharpened by concretizing "more climate resilient agricultural services" to the information produced by the IEWS. The indicator will be measured every six months through a survey sent to the IEWS users. In the logic of the results chain, the indicator measures IEWS users' satisfaction with the service; it contributes to assessing both the relevance and timeliness of the information disseminated through the IEWS.

Output 1.1.1: Institutional capacity building program directed at local public officers		
Output indicator 1.1.1 % of targeted local public employees trained (Percentage)	No change	**The indicator aligns to the PDO outcomes (ii) on increased adaptive capacity of key local institutions and (v) on dissemination on climate resilient and sustainable land management practices, and all the PDO Indicators.** The indicator definition is proposed to be concretized by noting that the "targeted local public employees" is understood as the members of the secretaries of production, economic development, and environment of the three beneficiary municipalities. Further, "training" is proposed to cover any training activity on Project-related topics facilitated by the Project.
Output 1.1.2: Information and Early-Warning System (IEWS) on Climate Change and Desertification developed and run through inter-institutional cooperation		
Output indicator 1.1.2 IEWS developed/ operational through inter-institutional cooperation[AF] (Yes/No)	**Proposed to be dropped.**	This indicator is proposed to be removed as the IEWS is sufficiently covered by the PDO Ind. 4 and IRI 1.1. The result has in every case been achieved since the end of 2016.
Output 1.1.3: Regional Consultative Observatory of Public Policies on Climate Change and Desertification in operation		
Output indicator 1.1.3 Active participation of at least the key institutions of the Observatory[AF] (Yes/No)	**Proposed to be dropped, together with the output.**	Within the Project framework, the consolidation of the IEWS has been promoted through a multi-institutional agreement that includes many of the institutions that would have been the key institutions to form and operate the Observatory. The IEWS represents institutional arrangements that allow provision of technically robust information for decision making to decrease vulnerability to climate variability and change and addresses causes of land degradation and desertification, based on scientifically solid data and analysis. The consultancy that analyzed the optimal operational set-up of both the IEWS and the Observatory, concluded the relevant local institutions do not present the necessary interest/commitment for the Project to engage in establishing the Observatory. Overall, the Project has many demanding work fronts; it is considered necessary to focus the limited Project resources and efforts on consolidating the institutional arrangements of the IEWS to secure its sustainability, instead of expanding multi-institutional interaction and activities to another similar initiative with low demand by the key actors.
Intermediate outcome indicator 1.2, Sub-component 1.2, Promoting Climate-smart	**Proposed to be Dropped**	The scope of the indicator was not realistic as it aimed to measure changes in practices of consulted people, taking as the applicable universe the approx. 80,000 inhabitants of the Municipalities of Patagones, Puan

Socio-cultural Approaches to Land Management % of consulted people who report on modification(s) in their Project-related practices (disaggregated by gender)[AF] (Percentage)		and Villarino. Consequently, a baseline was never established for the indicator.
Output 1.2.1: Training program for key local stakeholders, including specifically opinion leaders		
Output indicator 1.2.1 Number of beneficiary days of training provided[WB] (Training days)	No change	**The indicator aligns to the PDO outcomes (ii) on increased adaptive capacity of key local institutions, (iii) on increased adaptive capacity of key local actors, and (v) dissemination on climate resilient and sustainable land management practices, and the PDO Ind. 1-4.** It is considered necessary to explicit that the target values for this indicator are cumulative. In the PAD, "Training days" is marked as the unit of measure of this indicator; the same is herewith proposed to be officially corrected to be "Number".
Output 1.2.2: Teacher training program for environmental education specifically designed for the zone		
Output indicator 1.2.2 Number of teacher training institutes within SWBA that cooperate with the Project and offer related training (Teacher training institution)	**Proposed to be dropped, together with the output.**	Both the output and indicator are too far-reaching and little cost-efficient in terms of the process it takes to officially introduce new content in teacher training programs developed by commissions coordinated by the provincial Ministry of Education. Further, it is important to consolidate the Project efforts for higher efficiency of the results and focused on farmers as the primary target group. In every case, the Project still contributes to developing skills as it reaches out to teacher trainers and future managers of agricultural establishments on the Specific Intervention Sites where agricultural schools, the Center of Renewable Natural Resources in the Semiarid Zone-National Center of Scientific and Technical Research (CERZOS-CONICET) and the National Southern University (UNS) participate. In the PAD, "teacher training institution" is marked as the unit of measure of this indicator; the unit is proposed to be officially corrected to be "Number".

Output 1.2.3: Gender-sensitive program on appreciation of the local culture and products, the role of farmers and their family in society		
Output indicator 1.2.3 Number of cultural and socio-productive activities carried out in the Project zone jointly with the municipal governments (fairs, exhibitions, etc.) (Activity)	No change	**The indicator aligns to the PDO outcome (v) on dissemination on climate resilient and sustainable land management practices, and the PDO Ind. 3-4.** Although the indicator itself does not require modifications, the note on gender disaggregation for this indicator, "although no specific gender objectives were defined for this indicator, participation will be monitored by gender" is proposed to be removed from the column on "Additional Information on the Indicator": based on the experience gained thus far in the Project participation in several fairs in Patagones, Villarino and Puan since 2016, in similar open activities where people circulate freely, it is not possible to monitor disaggregated participation by gender. It is not viable to keep a respective record at the entrance or on people passing through a tent or booth, and less it would be viable to have supporting documentation to prove the registered result. In the PAD, "Activity" is marked as the unit of measure of this indicator; the same is proposed to be officially corrected to be "Number".
Component 2: Implementing Adaptation Measures in Productive Agroecosystems (USD 2.291 M) **Intermediate Outcome: Concrete adaptation measures to improve climate resilience and sustainability of productive agroecosystems defined and selected based on participatory processes and piloted by local farmers in cooperation with partner organizations**		
Component 2 Intermediate outcome indicator, Implementing Adaptation Measures in Productive Agroecosystems Number of beneficiaries who have adopted an improved agricultural technology promoted by the Project (disaggregated by gender) WB AF (People, male and female)	**Revised**: Definition and target values and moved to PDO level.	Please see the comment on the PDO Ind. 4.

Output 2.1: Program of interventions in Geographical Intervention Areas (GIAs), predefined on a participatory basis according to biophysical, economic and social criteria, offering a menu of options related to the management of water resources, crops, cattle and grazing lands		
Output indicator 2.1.1 Number of adaptation/sustainable land management (SLM) technologies identified/verified through local participatory consultations under the Project framework that are demonstrated within the GIAs[WB AF] (Adaptation/SLM technologies)	No change	**The indicator aligns to the PDO outcomes (i) on contribution to reduction of climate and man-made vulnerability of the agroecosystems in the Southwest of the Buenos Aires Province, (ii) on increased adaptive capacity of key local institutions, (iii) on increased adaptive capacity of key local actors, and (iv) piloted climate resilient and sustainable land management practices, and the PDO Ind. 2 and 3.** As in case of the new PDO Ind. 3, it is considered relevant to measure the process leading to the identification/verification of adaptation/SLM technologies. Consequently, the following minimum of two instances is proposed to improve the indicator: 1) Technology identified/verified, and 2) Technology applied/implemented. A "verified" technology counts with a validation by the relevant institutions that participate in the Project. An "implemented" technology refers to those that have been applied in a Project SIS. In the PAD, "Adaptation/SLM technologies" is marked as the unit of measure of this indicator; the same is herewith proposed to be officially corrected to be "Number".
Component 3: Applying a Participatory Approach to Knowledge Management and Monitoring and Evaluation (USD 0.140 M) **Intermediate Outcome: Enhanced local knowledge and capacity for adaptation and response, developed in a participatory manner**		
Intermediate outcome indicator, Component 3, Applying Participatory Approach to Knowledge Management and Local Capacity Development for Adaptation to Climate Change Number of related articles/programs in the local media and political initiatives in the three municipal Councils of the directly targeted counties[AF] (Media articles/programs and political initiatives)	**Revised:** 'Number of related articles/programs in the local media'	**The indicator aligns to the PDO outcome (v) on dissemination on climate resilient and sustainable land management practices, and the PDO Ind. 3.** The second part of the indicator is proposed to be eliminated ("…related…political initiatives in the three municipal Councils of the directly targeted counties") to make it measurable; no single indicator ought to try to measure different aspects. On the other hand, the removed part is more pertinent to Component 4 than 3, and is thus proposed to be covered by the new indicator proposed under Component 4, related with the sustainability of the Project results and the corresponding policy framework.

		In the PAD, "Media articles/programs and political initiatives" is marked as the unit of measure of this indicator; the same is herewith proposed to be officially corrected to be "Number".
Output 3.1: Combined consultation, coordination, training, and knowledge sharing at the local level in the three counties of direct Project intervention to develop and validate intervention proposals and work plans		
Output indicator 3.1 Workshops and other KM events meet their targets in terms of participation of different stakeholder groups (Yes/No)	**Revised**: 'KM events with broad stakeholder representation (Number)'	**The indicator aligns to the PDO outcomes (i) on contribution to reduction of climate and man-made vulnerability of the agroecosystems in the Southwest of the Buenos Aires Province, (ii) increased adaptive capacity of key local institutions, (iii) on increased adaptive capacity of key local actors, and (v) on dissemination on climate resilient and sustainable land management practices, and the PDO Ind. 3.** The revised indicator is simpler to measure. "Broad" stakeholder representation requires presence of representatives from a minimum of 3 different stakeholder groups.
Output 3.2: Capacity building for indicator development and measurement plans, systems of continuous improvement, training for local application groups, and mutual knowledge sharing in terms of the proposed activities between and beyond the counties		
Output indicator 3.2 % of targeted beneficiaries who have participated in related training and carry out their own means of M&E and continued improvement related to the measures they have adopted through participation in the Project (disaggregated by gender)[AF] (Percentage)	**Revised**: '% of the institutions in charge of the Specific Intervention Sites that carry out the respective activities of monitoring and evaluation'	**The indicator aligns to the PDO outcomes (ii) on increased adaptive capacity of key local institutions and (iii) on increased adaptive capacity of key local actors, and the PDO Ind. 1-3.** For improved appropriateness, this indicator is proposed to refer to the percentage of the local institutions that participate in the Project; not farmers, taken the referred M&E processes are more institutional than individual in nature and associated with capacity building within the participating organizations rather than in terms of individual beneficiaries. Consequently, it is proposed to maintain the original target percentages, but the disaggregation by gender is no longer valid when the indicator refers to institutions.
Component 4: Developing a Sustainability Strategy (USD 0.195 M) **Intermediate Outcome: Improved local, provincial and national level technical and institutional capacity to sustain, scale up and replicate the Project outcomes**		
Intermediate outcome indicator 4.1, Developing a Sustainability Strategy	No change	**The indicator aligns to the PDO outcomes (i) on contribution to reduction of climate and man-made vulnerability of the agroecosystems in the Southwest of the Buenos Aires Province, (ii) increased adaptive capacity of key local institutions, (iii) on increased**

Number of assumed institutional commitments for the continuity and sustainability of the Project results per sector and activity		**adaptive capacity of key local actors, and (iv) on piloted climate resilient and sustainable land management practices, and the PDO Ind. 1.** A definition will be included on the type of commitments that qualify for the indicator.
	New: Number of new or adjusted policies approved to address climate change risks	**The indicator aligns to the PDO outcomes (i) on contribution to reduction of climate and man-made vulnerability of the agroecosystems in the Southwest of the Buenos Aires Province, (ii) increased adaptive capacity of key local institutions, and (iii) on increased adaptive capacity of key local actors, and the PDO Ind. 1-3.** This new indicator is proposed both for its overall relevance under Component 4 as to compensate the reduction proposed in the scope of the intermediate outcome indicator of Component 3.
Output 4.1: Creation of a policy framework taking into account regulatory requirements and resources needed to continue the Project's main activities, and a commitment to disseminate the experiences and lessons learned		
Output indicator 4.1.1 Guidance material produced on critical pieces of policy framework, piloted adaptation practices, and potential sources of financing to support continued efforts to promote climate resiliency at different administrative levels and facilitate dissemination of Project results (Yes/No)	**Revised:** **'**Guiding material on possible policies to adapt to climate change produced and disseminated among decision makers'	**The indicator aligns to the PDO outcomes (ii) on increased adaptive capacity of key local institutions and (v) on dissemination on climate resilient and sustainable land management practices, and the PDO Ind. 1.** The original "Yes/No" indicator does not provide useful means to measure advances as it addresses too many different aspects. The proposed revision focuses on measuring "production" and "dissemination" of the referred material.