



ADAPTATION FUND

AFB/PPRC.5/5  
June 6, 2011

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Adaptation Fund Board  
Project and Programme Review Committee  
Fifth Meeting  
Bonn, June 20, 2011

## **PROPOSAL FOR ARGENTINA**

## I. Background

1. The Operational Policies and Guidelines for Parties to Access Resources from the Adaptation Fund, adopted by the Adaptation Fund Board, state in paragraph 41 that regular adaptation project and programme proposals, i.e. those that request funding exceeding US\$ 1 million, would undergo either a one-step, or a two-step approval process. In case of the one-step process, the proponent would directly submit a fully-developed project proposal. In the two-step process, the proponent would first submit a brief project concept, which would be reviewed by the Project and Programme Review Committee (PPRC) and would have to receive the approval by the Board. In the second step, the fully-developed project/programme document would be reviewed by the PPRC, and would finally require Board's approval.

2. The Templates Approved by the Adaptation Fund Board (Operational Policies and Guidelines for Parties to Access Resources from the Adaptation Fund, Annex 3) do not include a separate template for project and programme concepts but provide that these are to be submitted using the project and programme proposal template. The section on Adaptation Fund Project Review Criteria states:

*For regular projects using the two-step approval process, only the first four criteria will be applied when reviewing the 1st step for regular project concept. In addition, the information provided in the 1st step approval process with respect to the review criteria for the regular project concept could be less detailed than the information in the request for approval template submitted at the 2nd step approval process. Furthermore, a final project document is required for regular projects for the 2nd step approval, in addition to the approval template.*

3. The first four criteria mentioned above are:

1. Country Eligibility,
2. Project Eligibility,
3. Resource Availability, and
4. Eligibility of NIE/MIE.

4. The fifth criterion, applied when reviewing a fully-developed project document, is:  
5. Implementation Arrangements.

5. Based on the Adaptation Fund Board Decision B.9/2, the first call for project and programme proposals was issued and an invitation letter to eligible Parties to submit project and programme proposals to the Adaptation Fund was sent out on April 8, 2010.

6. According to the Adaptation Fund Board Decision B.12/10, a project or programme proposal needs to be received by the secretariat not less than nine weeks before a Board meeting, in order to be considered by the Board in that meeting.

7. The following project document titled "Increasing Climate Resilience and Enhancing Sustainable Land Management in the Southwest of the Buenos Aires Province" was submitted by the World Bank, which is a Multilateral Implementing Entity of the Adaptation Fund. This is the first submission of the project, using the two-step proposal process. It was received by the secretariat in time to be considered in the 14th Adaptation Fund Board meeting. The secretariat

carried out a technical review of the project proposal, assigned it the diary number ARG/MIE/Rural/2011/1, and filled in a review sheet.

8. In accordance with a request to the secretariat made by the Adaptation Fund Board in its 10th meeting, the secretariat shared this review sheet with the World Bank, and offered it the opportunity of providing responses before the review sheet was sent to the Project and Programme Committee of the Adaptation Fund.

9. The secretariat is submitting to the Project and Programme Review Committee the summary of the project, prepared by the secretariat, in Annex 1. The secretariat is also submitting to the Committee the technical review sheet and the responses provided by the World Bank, in an addendum to this document.

## II. Project Summary

Argentina – Increasing Climate Resilience and Enhancing Sustainable Land Management in the Southwest of the Buenos Aires Province  
Implementing Entity: World Bank

Project/Programme Execution Cost: USD 607,000  
Project/Programme Total Cost: USD 4,107,500  
Implementing Fee: USD 349,138  
Finance Requested: USD 4,456,638

### Project/Programme Background and Context:

According to the climate scenarios developed with the regional high resolution model for the 21st Century, a considerable temperature increase is expected for the whole of the Argentine territory. The proposed project aims to reduce climate vulnerability of the agriculture sector in the Southwest of the Province of Buenos Aires, which is suffering from man-made and increasingly climate change induced desertification processes. The proposed project would enhance the climate resilience and sustainable land management of affected agro-ecosystems through pilot adaptation measures focusing on water, crops and livestock management.

Component 1: Implementation of Measures to Reduce Institutional Vulnerability (USD 350,000)  
This component aims at improving response and integral planning capacity of local institutions by means of participatory governance systems. To that end, an Early Warning System for Climate Change and Desertification will be created in cooperation with the relevant technical institutions. Institutional capacity building will be provided in order to build and sustain these processes at institutional level. Regional consultative multi-stakeholder Regional Consultative Observatory on Climate Change and Desertification will be established to mainstream climate change adaptation into sectoral development planning and public policy-making processes. Technical training program will be arranged for teams of government officials.

Component 2: Implementation of Measures to Reduce Community-level Vulnerability (USD 350,000)  
Component 2 of the project aims at modifying negative patterns of socio-productive interaction with the local environment. The approach of this component is to promote induction and adoption of change in community relations with the natural environment, and will involve a training program on climate change and different adaptation options for disseminators and opinion leaders, a training program for rural school teachers, and a gender-sensitive program to empower farmers and their families and strengthen their social role for sustainable development.

Component 3: Implementation of Concrete Adaptation Measures with a Special Focus on Productive Approaches (USD 2,700,000)  
Component 3 will include measures that will be discussed, defined and put in practice jointly with the zone's farmer families and related technical institutions. The production-based measures are expected to include:

- a) Installation of microsystems for irrigation and rainwater harvesting;
- b) Implementation of crop rotation systems, diversification, time alteration of sowing, organic agriculture in demonstration sites;
- c) Implementation of adaptation measures such as forage banks, silvo pastoral production, pasture recovery and sustainable plot management through revolving funds; and

- d) Participatory development of Good Agricultural Practices (GAPs) aimed at enhancing management plans for production and adoption of a voluntary code of climate resilient GAP.

Component 4: Implementation of a Sustainability/ Exit Strategy (USD 100,500)

This component will include generating, during the project implementation, necessary institutional and community agreements for the measures to be sustained beyond project closure. To that end, it is necessary to create a policy framework, taking into account regulatory as well as material needs that contribute to continuation of key activities by stakeholders, and a commitment to demonstrable dissemination of lessons and experience.

Component 5: Monitoring and Evaluation (USD 217,000)

This component is aimed at participatory monitoring and control of the processes and impact evaluation. Beyond the overall benefits embedded with widely studied methodologies of participatory M&E, the purpose for the monitoring is to serve local capacity building processes. This component is aimed at developing continuous improvement measures and is therefore strongly linked to the Sustainability/Exit Strategy.



**ADAPTATION FUND**

**REQUEST FOR PROJECT/PROGRAMME FUNDING  
FROM ADAPTATION FUND**

**The annexed form should be completed and transmitted to the Adaptation Fund Board Secretariat by email or fax.**

**Please type in the responses using the template provided. The instructions attached to the form provide guidance to filling out the template.**

**Please note that a project/programme must be fully prepared (i.e., fully appraised for feasibility) when the request is submitted. The final project/programme document resulting from the appraisal process should be attached to this request for funding.**

**Complete documentation should be sent to**

**The Adaptation Fund Board Secretariat  
1818 H Street NW  
MSN G6-602  
Washington, DC. 20433  
U.S.A  
Fax: +1 (202) 522-3240/5  
Email: [secretariat@adaptation-fund.org](mailto:secretariat@adaptation-fund.org)**

## ACRONYMS

AR4	Cuarto Informe de Evaluación	Forth Assessment Report
BID	Banco Interamericano de Desarrollo	Inter-American Development Bank
BPA	Buenas Prácticas Agropecuarias	Good Agricultural Practices
CEPAL	Comisión Económica para América Latina	Economic Commission for Latin America and the Caribbean (ECLAC)
CIM	Centro Internacional de Migraciones	International Organization for Migration (IOM)
CIM – GTZ	Programa de Expertos Integrados de la Agencia de Cooperación Alemana: Centro para la Migración Internacional	Integrated expert programme of the German Development Cooperation Agency “Center for International Migration”
CIMA	Centro de Investigaciones del Mar y la Atmósfera	Research Center of the Sea and the Atmosphere
CMNUCC	Convención Marco de las Naciones Unidas sobre Cambio Climático	United Nations Framework Convention on Climate Change (UNFCCC)
CNULD	Convención de las Naciones Unidas de Lucha Contra la Desertificación	United Nations Convention to Combat Desertification (UNCCD)
COP	Conferencia de las Partes	Conference of the Parties (COP)
EAPs	Explotaciones Agropecuarias	Farming units
ENCC	Estrategia Nacional en Cambio Climático	National Strategy on Climate Change
ENOS	El Niño Oscilación del Sur	El Niño - Southern Oscillation (ENSO)
GEF	Fondo para el Medio Ambiente Mundial (FMAM)	Global Environment Facility
GEI	Gases de Efecto Invernadero	Greenhouse Gases (GHG)
GIZ	Agencia de Cooperación Técnica Alemana	German International Cooperation
IBRD	Banco Internacional de Reconstrucción y Fomento (BIRF)	International Bank for Reconstruction and Development
INA	Instituto Nacional del Agua	National Institute of Water
INTA	Instituto Nacional de Tecnología Agropecuaria	National Institute for Agricultural Technology
INTI	Instituto de Tecnología Industrial	National Institute for Industrial Technology
IPCC	Grupo Intergubernamental de Expertos sobre el Cambio Climático	Intergovernmental Panel on Climate Change
LADA-FAO	Evaluación de la Degradación de Tierras en Zonas Áridas – Organización para la Agricultura y la Alimentación	Land Degradation Assessment in Dryland Areas – Food and Agriculture Organization
MAGyP	Ministerio de Agricultura, Ganadería y Pesca	Ministry of Agriculture, Livestock and Fisheries
MERCOSUR	Mercado Común del Sur	Common Market from the South
MIE	Entidad Multilateral de Implementación	Multilateral Implementation Entity
OPDS	Organismo Provincial para el Desarrollo Sostenible	Provincial Sustainable Development Agency
ORA	Oficina de Riesgo Agropecuario	Agricultural Risk Office
P&M	Políticas y Medidas	Policies and Measures
PAN	Plan de Acción Nacional	National Action Plan
PERMER	Proyectos de Energías Renovables en Mercados Rurales	Renewable Energy in the Rural Market Project
PNUD	Programa de las Naciones Unidas para el Desarrollo	United Nations Development Programme (UNDP)
POA	Plan Operativo Anual	Annual Operating Plan (AOP)
PROSAP	Programa de Servicios Agrícolas Provinciales	Provincial Agricultural Services Programme
SAYDS	Secretaría de Ambiente y Desarrollo Sustentable	Secretariat of Environment and Sustainable Development

<b>UEP</b>	<b>Unidad de Ejecución del Proyecto</b>	<b>Project Implementation Unit</b>
<b>VAT</b>	<b>Valor Actual Neto</b>	<b>Net Present Value (NVP)</b>





## PROJECT/PROGRAMME PROPOSAL

### ■ PART I: PROJECT/PROGRAMME INFORMATION

PROJECT/PROGRAMME CATEGORY:	<b>REGULAR PROJECT/PROGRAMME</b>
COUNTRY/IES:	<b>ARGENTINA</b>
TITLE OF PROJECT/PROGRAMME:	<b>INCREASING CLIMATE RESILIENCE AND ENHANCING SUSTAINABLE LAND MANAGEMENT IN THE SOUTHWEST OF THE BUENOS AIRES PROVINCE</b>
TYPE OF IMPLEMENTING ENTITY:	<b>MIE</b>
IMPLEMENTING ENTITY:	<b>WORLD BANK</b>
EXECUTING ENTITY/IES:	<b>NATIONAL SECRETARIAT OF ENVIRONMENT AND SUSTAINABLE DEVELOPMENT AND BUENOS AIRES PROVINCIAL AGENCY FOR THE SUSTAINABLE DEVELOPMENT</b>
AMOUNT OF FINANCING REQUESTED:	<b>4,456,638</b> (in U.S. Dollars Equivalent)

### ■ PROJECT / PROGRAMME BACKGROUND AND CONTEXT:

*Provide brief information on the problem the proposed project/programme is aiming to solve. Outline the economic social, development and environmental context in which the project would operate.*

According to the climate scenarios developed with the regional MM5/CIMA high resolution model for the 21<sup>st</sup> Century, which served the Second National Communication (SNC) of the Republic of Argentina to the United Nations Framework Convention on Climate Change (UNFCCC), a considerable temperature increase is expected for the whole of the Argentine territory. Greater intensity of this increase is projected in the North of the country, which could be above 4°C in the second half of the century. Southwards, the increases would be smaller, but increases of up to 2°C are expected in Patagonia. These increases, added to the warming already experienced during the 20<sup>th</sup> Century of approximately 1°C, are expected to have negative effects on several natural systems such as, for example, the generalized retreat of glaciers and higher evapotranspiration with impacts on water availability and consequent risk of water deficit for agricultural production. The SNC's forecasts indicate, especially for the North and center of the country, that increases are expected also in terms of maximum temperatures accompanied by a concentration of the rainfall regime, though the mean rainfall levels are expected to stay approximately at their actual levels. All this is expected to result in increased aridity and an intensification of the desertification

processes affecting agriculture and, since increased droughts are forecasted for the winter season, special impacts on cattle ranching.<sup>1</sup>

Taking that, according to the National Action Program to Combat Desertification<sup>2</sup>, the Republic of Argentina uses over 80% of its land in agricultural, livestock and forestry activities, the situation in Argentina is one of high vulnerability in general, since the climate is one of the most important physical assets on which socio-productive activities depend. In Argentina, it is possible to identify a series of causes of vulnerability on human activities originating in extreme climate events and increasing variability or change of climatic and/or hydrological conditions. The events with the greatest impact on the territory, and which will become worse as a consequence of climate change, are: 1) extraordinary storms causing material damages due to flooding and wind erosion and affecting infrastructure and diverse property and assets; crops, cattle and agricultural soils; and 2) considerable intervals of absence or excess of rainfall, causing damages in agriculture and cattle ranching as a result of cyclic droughts and floods in rural areas. According to the Second National Communication<sup>3</sup> this is mainly due to the greatest factor of year-on-year climate variability, the El Niño Southern Oscillation (ENOS) phenomenon.

Within the framework of the National Program for Disaster Risk Prevention and Reduction and Territorial Development, that is being implemented since 2010 by the National Ministry of Territorial Planning, Public Investment and Services together with UNDP, the main threats for the agricultural sector connected with impacts of climate variability and change are triggered by several processes: on site rains, overflow of watercourses (rivers, streams and canals, both in flatlands and in areas with marked relief); overflow of lagoons, rains combined with winds, surface or sheet-flow runoff in extended plain areas, snowmelt (in the Patagonia and Cuyo provinces), land degradation, rising water tables and, occasionally, breakage of dikes and construction of embankments. The associated damages and losses are high, estimated in the equivalent to 1.1% of the Gross Geographic Product.<sup>4</sup>

According to the Desinventar<sup>5</sup> database, in the last 40 years in Argentina, 68% of the disasters have been caused by hydro meteorological threats such as droughts and floods on agricultural lands. From these, floods account for 48.1% of the hydro meteorological disasters recorded between 1970 and 2009. In terms of territorial scope, droughts and floods affect 100% of the country's provinces and 91.2% of the districts in the national territory.

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<sup>1</sup> Scenario A1B (2020-2040) described in the Second National Communication on Climate Change in Argentina: <http://www.ambiente.gov.ar/?idarticulo=1124>

<sup>2</sup> <http://www.ambiente.gov.ar/?idarticulo=1124>

<sup>3</sup> <http://www.ambiente.gov.ar/archivos/web/UCC/File/Segunda%20Comunicacion%20Nacional.pdf>

<sup>4</sup> <http://www.planif-territorial.gov.ar/html/direcciones/doc/riesgo.pdf>

<sup>5</sup> The Desinventar data base is a conceptual and methodological tool for the construction of databases of losses, damages or effects caused by emergencies or disasters in Latin America covering the period 1970-2009 and containing 19,402 records of disasters that comprise the whole of Argentina.

According to the report "Poverty and Climate Change: Reducing the Vulnerability of the Poor through Adaptation"<sup>6</sup>, land degradation, changes in food prices and population growth are the greatest concerns in terms of sustaining global food security. The expected changes and on-going variability in temperature, rainfall and extreme climate events described in terms of Argentina affect especially agricultural resources. This will be particularly serious in areas where droughts and land degradation, including desertification, are currently severe.

This context frames one of the greatest challenges of climate change adaptation in Argentina, taking into account that land degradation in arid, semi-arid and sub-humid dry zones exposed to desertification processes comprises 75% of the country. 50% of the agricultural and cattle production and 30% of the total population is located in these zones.<sup>7</sup> From this perspective, climate variability and change suggests serious consequences in terms of food security at the national level.

The soils in the semi-arid Pampa regions, and especially those dedicated to agriculture, are exposed to the greatest vulnerability to climate variability and change, since due to their biophysical fragility and anthropogenic stress factors they evidence severe desertification processes and low levels of resilience.

With an approximate area of six million five hundred thousand (6,500,000) hectares, the Southwest of the Province of Buenos Aires has around five hundred fifty thousand (550,000) inhabitants, representing four per cent (4%) of the total provincial population. In turn, according to data from the Provincial Statistics Directorate, farming in the Southwest of Buenos Aires accounts for an important 28% of the Gross Geographical Product<sup>8</sup> of the Province of Buenos Aires. Further, it comprises 15% of the beef cattle being essentially a cattle rearing zone with agriculture in marginal lands highly vulnerable to wind erosion and drought where agricultural risk increases from north to south and from east to west<sup>9</sup>. It may be noted that the population in Southwestern Buenos Aires is highly dependent on small and medium-scale agricultural and cattle ranching activities. The zone accounts for approximately 12.3% of the total Buenos Aires farms in the range of 0-500 hectares. In turn, this stratum of family-run subsistence farming corresponds to 62.5% of the 5,000 farming units (in Spanish *explotaciones agropecuarias*, EAPs) of the zone, according to the last National Agricultural Census (2002).

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<sup>6</sup> Report developed by the African Development Bank, Asian Development Bank; Department for International Development, United Kingdom; Directorate-General for Development, European Commission; Federal Ministry for Economic Cooperation and Development, Germany; Ministry of Foreign Affairs - Development Cooperation, The Netherlands; Organization for Economic Cooperation and Development; United Nations Development Programme; United Nations Environment Programme; The World Bank.

<sup>7</sup> <http://www.ambiente.gov.ar/?idarticulo=1124>

<sup>8</sup> The Gross Geographical Product (GGP) measures the value at market prices of the production of end goods and services, attributable to production factors physically located in the country. In Argentina, a distinction is made between GDP and GGP, with GDP being defined in the usual manner and GGP as the equivalent but applied to the provinces.

<sup>9</sup> [http://www.maa.gba.gov.ar/2010/dir\\_econo\\_rural/plan\\_des\\_sudoeste.php](http://www.maa.gba.gov.ar/2010/dir_econo_rural/plan_des_sudoeste.php)

Given the extreme oscillations between relatively long wet and dry periods, the problems faced are not restricted to lack of water, but rather to a vicious cycle between the following factors: drought -- wind erosion -- flooding -- water erosion --- soil compaction --- salinization --- desertification.

The worst drought of the last 50 years in the zone was recorded in 2009, peaking what was already a 5-year trend of low rainfall, at 185 mm. The phenomenon generated serious losses in crops and forage, as well as natural grasslands. The consequences on the production of grain and animal forage were disastrous, with nil yields and consequent bankruptcies and abandonment of agricultural exploitations by farmers, most of them at the subsistence level. In terms of anthropogenic stress factors on the environment, closely linked with the climatic cycles described above, there was, on the one hand, a strong degradation and overexploitation of the soil resources due to overgrazing and excessively intense methods of agricultural production during the wet period prior to the drought that lasted until 2005: soil degradation followed the farmers attempting to maintain their yield levels by increasing the animal load per lot.<sup>10</sup>

Thus, the periodic droughts in this region triggered wind erosion processes on over 8,000,000 ha giving rise to the creation of dunes and soil blowing. These fragile soils do not recover during the rainy periods but, on the contrary, have appeared to be especially affected by water erosion, accounting up to approximately 4,000,000 ha.<sup>11</sup>

Due to these cycles of extreme climate events suffered by the region, the farming culture is heavily leaning on uncertainty calculations. This has led to a short-term approach to productive systems strongly rooted in the farmers' mentality, all this hampering unsustainable use of natural resources.<sup>12</sup>

The selection criteria for the project area by the National Secretariat of Environment and Sustainable Development (SAyDS) consists of four fundamental aspects: a) significant occurrence of the above-mentioned negative impacts of climate variability and change; b) significant weight of these impacts on national sustainable development on a strategically important area of agricultural production; c) existence of a combination of the three major impacts (flooding, drought and desertification); and d) major impacts on the population.

Thus, the region targeted by the project (see Map No. 1 in Annex 1), through a mixture of direct interventions and expected indirect impacts, includes the Districts of Guaminí, Monte Hermoso, Adolfo Alsina, Coronel Suárez, Coronel Pringles, Coronel Dorrego, Saavedra, Tornquist, Puán, Coronel Rosales, Bahía Blanca, Villarino and Patagones.<sup>13</sup>

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<sup>10</sup> <http://www.inta.gov.ar/ascasubi/info/documentos/rn/eroviento10.pdf>

<sup>11</sup> <http://www.ambiente.gov.ar/?idarticulo=1124>

<sup>12</sup> See: López Castro, Natalia (2009): Cuando la persistencia es una cuestión de familia. Relaciones familiares, traspaso y género en las explotaciones agropecuarias del Sudoeste Bonaerense, in: Mundo Agrario, vol 10, no. 19.

<sup>13</sup> <http://www1.hcdn.gov.ar/proyxml/expediente.asp?fundamentos=si&numexp=6789-D-2008>

The proposed direct intervention area (see Map No. 2 in Annex 1) would involve three districts with a predominance of dry farming located in zones below the 600 mm isohyetal line (dry districts with frequent water deficit), Puán, Patagones and Villarino. They were selected based on the following two criteria: 1) a scattered rural population equal or greater than 10% of their overall population, and 2) frequent occurrence of agricultural emergency.

## ■ PROJECT / PROGRAMME OBJECTIVES:

*List the main objectives of the project.*

The main project objective is to reduce climate vulnerability of the agriculture sector in the Southwest of the Province of Buenos Aires suffering from man-made and increasingly climate change induced desertification processes. Climate resilience and sustainable land management of affected agroecosystems will be enhanced through pilot adaptation measures focusing on water, crops and livestock management.

The project contemplates the following main outcomes:

- 1. Institutional response and prevention capacities developed for sustained results.** Specifically, the sectors involved in adaptation of the agroecosystems in the Southwest of the Province of Buenos Aires will set up a Regional Consultative Observatory on Climate Change and Desertification capable of monitoring land degradation processes induced by increasing impacts of climate variability and change, as well as a Consultative Council for public decision-making on related policy options. In addition, an early warning system (EWS) will be established to increase preventive and response capacity of the affected stakeholder groups, such as municipal governments, farmer cooperatives and provincial institutions. This system will have a multi-institutional structure involving local technical institutions and universities. Technical, institutional and material capacity will be also developed to sustain the results obtained and contribute to their up scaling. Ensuring continuity of successful project results in a longer run will demand development of regulatory frameworks contemplating incentives, continuing stakeholder training, functional monitoring and evaluation techniques, as well as necessary minimum finance. This outcome will benefit all the 13 districts of the Province; approximately 550 thousand inhabitants.
- 2. Reduced vulnerability of the productive approaches.** Vulnerability of the communities to the adverse impacts of climate variability and change in the zone is expressed, among other things, in high indicator values of unmet basic needs and the growing desolation of the towns through migration to other areas. Motivational changes will be generated to better understand the short-sighted relationship between producers and the natural base of the current productive systems. Importantly, people will be empowered to start shifting from emergency response towards emergency prevention in the projected context of climate variability and change. A gender-sensitive community strengthening program will aim at

accompanying farmers and their families in taking stock of the current and projected situation for farming in the zone. Project beneficiaries will be supported in rethinking their available options and choosing between those in terms of them moving forward. Next phase of project preparation and related consultations will weight especially this component, so certain flexibility needs to be warranted in terms of the below concrete adaptation measures that the project proposes to pilot. For example, revolving funds might be offered for members of farmer families to access education or training to prepare for a change of occupation. Incentives will be created for active participation in confronting man-made and climate change induced factors of vulnerability, thus improving stakeholders' knowledge and response capacity and increasing their sense of belonging, accountability and citizenship.

3. **Concrete adaptation measures piloted in the productive agroecosystems** aimed at enhancing their climate resilience and reducing both man-made and climate change induced vulnerability of the farming sector in dry areas. The measures are planned to include, for example, installing systems for efficient water capture and use, sustainable production technologies in farming and cattle ranching, as well as a program to increase the value of production and generate alternative opportunities for sustainable livelihoods.
4. **Local capacity to control, adjust, evaluate and disseminate the project's outcomes generated** through a participatory monitoring program. The monitoring program will not be designed only to survey the project's processes and impacts, but also to involve the stakeholders and strengthen their ownership of the activities. The local stakeholders will be trained in monitoring, evaluation and continuous improvement processes to provide them with effective control tools that subsistence farmers will later be able to apply to their respective production environments and government officials in public administration. This is intended to improve the general quality of production processes and public services, as well as strengthen specific capacities for autonomous adaptation both within productive and political systems. Generation of materials and methodologies required to disseminate experiences and attainments as well as to replicate good practices adopted at national as well as international level will be an integral part of the project.

**■ PROJECT / PROGRAMME COMPONENTS AND FINANCING:**

*Fill in the table presenting the relationships among project components, activities, expected concrete outputs, and the corresponding budgets. If necessary, please refer to the attached instructions for a detailed description of each term.*

*For the case of a programme, individual components are likely to refer to specific subsets of stakeholders, regions and/or sectors that can be addressed through a set of well defined interventions / projects.*

PROJECT COMPONENTS	EXPECTED CONCRETE OUTPUTS	EXPECTED OUTCOMES	AMOUNT (US\$)
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<p><b>1. Implementation of Measures to Reduce Institutional Vulnerability</b></p>	<p>Establishment of a <b>monitoring and early warning system for droughts, land degradation and desertification control</b> comprising the region's dry zones and consisting of installation of metering stations and the establishment of technical teams in each of the 13 districts involved, expansion of meteorological stations, harmonization of criteria and indicators, as well as an appropriate analysis, warning and decision-making system. The early warning system potentially comprises 6.2 million hectares.</p> <p><b>Regional consultative multi-stakeholder Regional Consultative Observatory on Climate Change and Desertification to mainstream climate change adaptation</b> into sectoral development planning and public policy-making processes. The Observatory will include representatives of the relevant stakeholders at the sectoral, provincial and municipal levels, as well as from the technological and academic sectors. Among the public policies to be developed, special emphasis will be put on generating practical guidelines to provide incentives for climate resilient and sustainable production in the agroecosystems of the region.</p> <p><b>Technical training program for teams of government officials.</b> The staff of the Natural Resources Conservation Directorates as well as their enforcement actors such as inspectors and technical and legal instructors will be trained for assessment of degradation processes, analysis of climate induced problems and enforcement of relevant rules.</p>	<p>Institutional response and prevention capacities developed to reduce local vulnerabilities to climate variability and change.</p>	<p>350,000</p>
<p><b>2. Implementation of Measures to Reduce</b></p>	<p><b>Training program</b> on climate change and different adaptation options <b>for disseminators and</b></p>	<p>Reduced vulnerability of livelihoods with a special focus on productive</p>	<p>350,000</p>

<p><b>Community-level Vulnerability</b></p>	<p><b>opinion leaders</b> (journalists, town councilors, etc.).</p> <p><b>Training program for rural school teachers</b> to mainstream environmental factors, climate change and approaches to climate resilience into the curriculum. This program will directly benefit 239 education centers with 27,864 students and indirectly the 1210 schools in the province's southwestern region, with a total of 189,364 students.<sup>14</sup></p> <p><b>A gender-sensitive program to empower farmers and their families and strengthen their social role for sustainable development</b>, conservation of natural resources and environmental preservation. Special emphasis will be given to the need of generating openness to change and a culture of cooperation to facilitate piloting of adaptation measures to be implemented under component 3.</p>	<p>approaches.</p>	
<p><b>3. Implementation of Concrete Adaptation Measures with a Special Focus on Productive Approaches</b></p>	<p>Definition and application of concrete adaptation measures within productive agro ecosystems and beyond, in terms of potential occupational changes, directly benefitting 1648 family subsistence farmers comprising approximately 2,700,000 hectares and 2030 farms. Indirectly, up to 4031 family farmers with 6,248.000 hectares and 5,466 farms<sup>15</sup> are expected to benefit of this component.</p> <p>Installation of microsystems for irrigation and rainwater harvesting  <b>→ Water Resources Management</b></p> <p>Implementation of crop rotation systems, diversification, time</p>	<p>Concrete adaptation measures piloted with a special focus on the productive agroecosystems.</p>	<p>2,700,000</p>

<sup>14</sup> General Directorate of Culture and Education of the Province of Buenos Aires, 2010: <http://abc.gov.ar/lainstitucion/organismos/informacionyestadistica/serieestadisticas/documentosdescarga/relevamientoanual2007/anual2007-totalxdistrito.pdf>

<sup>15</sup> Data from the 2002 National Agricultural Census. The 2008 census is in the process of publication and does not yet provide data at the departmental level. The census can be found at: [http://www.indec.gov.ar/default\\_cna2002.htm](http://www.indec.gov.ar/default_cna2002.htm).



	<p>alteration of sowing, organic agriculture in demonstration sites → <b>Crop Management</b></p> <p>Implementation of adaptation measures such as forage banks, silvo pastoral production, pasture recovery and sustainable plot management through revolving funds → <b>Livestock and Pasture Management</b></p> <p>Participatory development of Good Agricultural Practices (GAPs) aimed at enhancing management plans for production and adoption of a voluntary code of climate resilient GAP.</p> <p>Based on results of further stakeholder consultations, identification of alternative livelihood options and ways to facilitate their adoption.</p>		
<b>4. Implementation of Sustainability/ Exit Strategy</b>	<p>A representative Working Committee of the project intervention area with institutional capacity to maintain the monitoring and early warning system with commitment to provide information to the project focal point for a period of 5 consecutive years after project completion.</p> <p>A compilation and review of domestic and international sources of finance to secure continuity of the key project activities.</p> <p>Implementation of a program for dissemination and exchange of experiences both nationally and internationally.</p>	Technical, institutional and material capacity developed to sustain the results obtained and contribute to their up scaling.	100,500
<b>5. Monitoring and Evaluation</b>	A participatory system for process and impact monitoring, evaluation and control.	Local capacity generated to control, adjust, evaluate and disseminate the project's outcomes.	217,000
<b>6. Project Execution Costs</b>			<b>390,000</b>
- Project staff		9,800 * 36 months	
Mobility for coordination unit			
- Equipment and office facilities		7,200	
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- Travel		30,000	

7. Total Project/Programme Cost	4,107,500
8. Project Cycle Management Fee charged by the Implementing Entity (if applicable)	349,138
<b>Amount of Financing Requested</b>	<b>4,456,638</b>

**PROJECTED CALENDAR:**

*Indicate the dates of the following milestones for the proposed project/programme*

<b>MILESTONES</b>	<b>EXPECTED DATES</b>
<i>Start of Project/Programme Implementation</i>	June 2012
<i>Mid-term Review (if planned)</i>	June 2014
<i>Project/Programme Closing</i>	June 2015
<i>Terminal Evaluation</i>	November 2015

**PART II: PROJECT / PROGRAMME JUSTIFICATION**

**A. Describe the project / programme components, particularly focusing on the concrete adaptation activities of the project, and how these activities contribute to climate resilience. For the case of a programme, show how the combination of individual projects will contribute to the overall increase in resilience.**

The technical project interventions will be supported by cross-institutional work aimed at creating an adequate political, social and economic framework that would ensure pertinence, adoption and continuity of the adaptation efforts. For that reason, although the project will prioritize implementation of production-based adaptation measures in agroecosystems by introducing techniques for sustainable management of natural resources (component 3), the complementary intervention pillars (components 1, 2 and 4) aim at bolstering any adaptation measures identified and chosen for piloting under the project. This will be done by developing institutional and community-level capacity and ownership through participatory engagement of local stakeholders in decision-making.

**Component 1: Implementation of Measures to Reduce Institutional Vulnerability** aimed at improving response and integral planning capacity of local institutions by means of participatory governance systems. To that end, an Early Warning System for Climate Change and Desertification will be created in cooperation with the relevant technical institutions. Institutional capacity building will be provided in order to build and sustain these processes at institutional level. As an overall coordinating entity, a

**multi-stakeholder Regional Consultative Observatory on Climate Change and Desertification, comprised of public and private sector representatives (municipal governments, farmers, universities, technical institutes), will be created to manage the EWS, map climate risks and vulnerabilities, generate incentives through a sustainable land management program, develop adaptation strategies, and develop a program for public awareness.**

**Component 2: Implementation of Measures to Reduce Community-level Vulnerability aimed at modifying negative patterns of socio-productive interaction with the local environment. The approach of this component is to promote induction and adoption of change in community relations with the natural environment. At present, according to a series of sociological studies on social fragmentation of rural communities in the area of intervention<sup>16</sup>, there is a general perception of neglect on the part of public policies among rural communities, as well as a generalized lack of sense of responsibility related to sustainable use of natural resources.<sup>17</sup> Hence, in case of the districts within the project intervention zone, the main barriers to adopt climate adaptation measures are estimated to be social fragmentation, a low level of awareness and understanding of the factors involved in the degradation of resources, as well as a growing disconnection with traditional subsistence farming activities. This translates into dynamics of abandonment of fields, concentration of the farming units, and migration towards bigger urban centers.<sup>18</sup> The dynamics of climate change, with extended alternative cycles of drought and floods, is directly linked to these socio-cultural processes, as they favor a short-term vision of the economic accumulation cycles and consequent adverse approach to production changes and adoption of new technologies.**

**Starting from the basis that the scope of the climate disasters (drought-floods) results from social processes and that the responses to these are conditioned by social, economic and political structures, the component 2 on reduction of social vulnerability is considered to be fundamental for the effectiveness of the other components 1 and 3, as it intends to transform these socio-cultural barriers into windows of opportunities for transitioning**

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<sup>16</sup> López Castro, N. (2009) Cuando la persistencia es una cuestión de familia. Relaciones familiares, traspaso y género en las explotaciones agropecuarias del Sudoeste Bonaerense. In: Mundo Agrario, vol. 10, nº 19, second semester of 2009. Centro de Estudios Histórico Rurales. Facultad de Humanidades y Ciencias de la Educación. Universidad Nacional de La Plata.

<sup>17</sup> Graciela A; Rofman A (2009): Agrobusiness y fragmentación en el agro argentino: desde la marginación hacia una propuesta alternativa. Mundo Agrario 10, No. 19.

<sup>18</sup> La teoría social del riesgo. Una primera aproximación a la vulnerabilidad social de los productores agropecuarios del Sudoeste bonaerense ante eventos climáticos adversos. María Isabel Andrade; Paola Laporta. Centro de Investigaciones Geográficas, Facultad de Humanidades y Ciencias de la Educación, Universidad Nacional de La Plata

to an adaptive process of change. The component includes working with the zone's educational institutions and local opinion leaders, as well as farmers' families and communities as whole. As a result of a teacher training program and training of key social disseminators such as journalists and town councilors, among others, the aim is to induce a motivational change and generalize a comprehensive perspective of the issues in order to make progress with effective adaptation measures proposed for the productive agroecosystems. The more concrete content of this component will be prepared in close consultation with the project stakeholders during the next phase of project preparation.

**Component 3: Implementation of Concrete Adaptation Measures with a Special Focus on Productive Approaches that will be discussed, defined and put in practice jointly with the zone's farmer families and related technical institutions. The production-based measures are expected to include decentralized measures of efficient capture and storage of rainwater and installation of microsystems for irrigation. To strengthen food and agroecological diversity and directly raise the standard of living of the local population, creation of organic vegetable gardens is proposed at family level. Further adaptation measures proposed for transition from the current situation to a sustainable land management approach suited to the biophysical conditions of the productive environment as well as the possibilities and expectations of the farmers are: crop rotation, organic pest control, adjusted sowing, cover crops, sustainable land tillage, adaptation of cattle ranching systems through use of forage banks, forest grazing and sustainable management of plots for pasture. These measures were identified in a study by the *Universidad Nacional del Sur*<sup>19</sup> on addressing impacts of climate variability and change on the agroecosystems of the intervention zone. They will be further discussed and analyzed during following project preparation, and different adaptation measures or even approaches can be contemplated according to results of further stakeholder consultations.**

In all cases and as mentioned before, necessary inputs and their shared management at the community level will be identified together with local stakeholders, and revolving funds will be set up to support them. Examples of possible actions include community storage of winter forage, seed supply for soil fixation crops, provision of inputs for shelter belts against wind erosion, and small community funds for emergencies (subsistence farming micro insurance). In addition, a program for strengthening value

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<sup>19</sup> Iurman, Daniel, (2009): Diagnóstico y evaluación económica de alternativas tecnológicas para productores agropecuarios familiares de la zona de secano del partido de Carmen de Patagones. Departamento de Economía de la Universidad Nacional del Sur.

chains is planned in order to improve access to markets through better products, marketing and efficiency in the use of natural resources (Value Chain Improvement). Options to facilitate even occupational changes within farmer families will be discussed and analyzed during following project preparation.

**Component 4: Implementation of Sustainability/Exit Strategy** includes generating, during the project implementation, necessary institutional and community agreements for the measures to be sustained beyond project closure. To that end, it is necessary to create a policy framework, taking into account regulatory as well as material needs that contribute to continuation of key activities by stakeholders, and a commitment to demonstrable dissemination of lessons and experience. Continued financing for successful initiatives will be sought by means of institutional arrangements that enable linking them with the Plan for the Development of the Southwest of the Province of Buenos Aires, adopted pursuant to provincial law 13,647 in 2007. The Plan provides resources for the annual provincial budget<sup>20</sup> directed to differential treatment to marginal districts in terms of production such as Adolfo Alsina, Saavedra, Púan, Tornquist, Coronel Rosales, Coronel Borrego, Bahía Blanca, Villarino, Carmen de Patagones, Guaminí, Coronel Suárez and Coronel Pringles.

The participation of the Executive Council of the named Plan, which includes several stakeholders that are relevant for the project development, is contemplated in the Regional Consultative Observatory on Climate Change and Desertification proposed under component 1. Likewise, linkage with other national-level plans will be promoted, e.g. the Provincial Agricultural Services Program described under the item on consistency with national strategies. On the other hand, it is important to provide local authorities with tools required to continue funding of key activities. For that purpose, a compilation and review of potential sources of financing will be conducted and a fund raising strategy involving private and public sectors developed. Finally, a participatory program to disseminate good practices will be applied to trigger multiplication processes sustained through time.

**Component 5: Monitoring and Evaluation** aimed at participatory monitoring and control of the processes and impact evaluation. Beyond the overall

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<sup>20</sup> The Plan for the Development of the Southwest of the Province of Buenos Aires has 40 million Argentine pesos (approximately US\$ 10 million) funding for 2011 and operates under the Ministry of Agrarian Affairs of the Province of Buenos Aires through a committee that includes several institutions and sectoral business associations.  
[http://www.maa.gba.gov.ar/2010/dir\\_econo\\_rural/plan\\_des\\_sudoeste.php](http://www.maa.gba.gov.ar/2010/dir_econo_rural/plan_des_sudoeste.php)

**benefits embedded with widely studied methodologies of participatory M&E, the purpose for the monitoring is to serve local capacity building processes. This component is aimed at developing continuous improvement measures and is therefore strongly linked to the Sustainability/Exit Strategy.**

**Institutional development and capacity building as a cross cutting issue: From an overall project-management perspective, components 1, 2 and 4 include institutional development and/or capacity building measures at different levels. The main objective is that these measures would sustain and enhance viability of adoption and continuity of technical measures implemented under component 3. In this sense, components 1, 2 and 4 build upon each other being simultaneously enriched through their particular outputs during the entire project implementation process.**

**B. Describe how the project / programme provides economic, social and environmental benefits, with particular reference to the most vulnerable communities.**

In the direct project intervention area, over 80% of the farms are family owned, of which a majority belong to the stratum of small farmers with less than 500 hectares (Villarino: 61.2%, Patagones 43.1%, Puán 64.5%)<sup>21</sup>. This stratum is especially vulnerable to the described climate impacts, as after each extreme weather event (drought/flood), they face the future production cycles with increasingly compromised family production capitals.<sup>22</sup> During the last decade, this has went so far that the Southwestern region of Buenos Aires has depended on public policies supporting primary production, as well as on regulations which have attempted to protect it from climate contingencies. This is especially the case of the provincial Law 10,390 on agricultural emergencies which provides exemptions, extensions and public aid to affected farmers. Thus, during 1991-2010 the region has been declared in drought emergency uninterruptedly, with serious consequences for the farmers and their families, as well as for the local infrastructure and public services.

If the share of scattered rural population in each district is taken into account—a method used by the National Institute for Industrial Technology (INTI) in 2009 to assess the poverty situation in zones with a large share of rural population—it is seen that the districts in the Southwest of the Province of Buenos Aires, and especially those located in dry areas and with particularly scattered rural population, widely exceed the provincial average of poverty with poverty rates of 20-37%. Thus, the intervention zone is placed second in the province's poverty ranking immediately behind the Buenos Aires

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<sup>21</sup> Data from the National Agricultural Census [http://www.indec.gov.ar/default\\_cna2002](http://www.indec.gov.ar/default_cna2002).

<sup>22</sup> <http://www.inta.gov.ar/ascasubi/info/documentos/rn/eroviento10.pdf>

conurbation which, in turn, is one of the sites with the highest poverty indicators in the country.<sup>23</sup>

In the same direction, the population data published by the Directorate of Provincial Statistics evidences the problem of disappearance of villages and even urban centers especially in the dry land districts with an important rural population. Thus, the population growth in most of the districts between 2001 and 2010 has been extremely low and, in the case of the districts of Adolfo Alsina, Guaminí, Coronel Dorrego and Puán, there was a net population drop of around 4.5%. In these cases, those who migrate constitute the potentially active population, leaving behind a population that is highly dependent on family and/or government transfers.

**At the production level, the project aims at providing the affected population with an early warning system, better systems for water capture and irrigation, technical inputs and materials to adapt their production to climate variability and change, training for an adequate planning of their activities and restoring recuperation capacity of ecosystem services, as well as material and conceptual means to diversify family subsistence agriculture (food security). Overall, it is expected that measures taken in terms of strengthening sustainable production means and facilitating potential occupational changes through concrete pilots, use of revolving funds and improvement of value chains (production, distribution and access to alternative markets) will facilitate beneficiaries' climate resilience with a menu of options.**

Furthermore, the affected population will benefit from better institutions, better information and greater predictability, thanks to a social web that contributes to decreasing vulnerabilities and improving prevention of and responsiveness to climate risks.

**C. Describe or provide an analysis of the cost-effectiveness of the proposed project / programme.**

**The consequences for the zone of the above described man-made degradation processes, linked to a high degree of vulnerability to impacts of climate variability and change, are considerable: loss of means of livelihood of thousands of small subsistence farmers and their families, abandonment of small and medium-scale farms and rural villages and towns in the zone, deterioration of the zone's rural infrastructure, pressure on the productive ecosystems with worsening consequences for their recovery capacity and vulnerability to climate change. Salinization, erosion**

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<sup>23</sup> Mezza, Nadina; Ocaranza, Alejandro (2009): Mapa de Pobreza e indigencia de la Provincia de Buenos Aires. Instituto Nacional de Tecnología Industrial.

**and desertification due to overexploitation of the natural resources and increased deforestation all go along with decreasing productivity of the soils. Besides, it is necessary to take into account the problems resulting from these processes at the socio-cultural level: population uprooting, dependency on governmental alleviation measures, loss of work culture, deterioration of social life in the rural environment, loss of production knowledge and deterioration of the human capital. A particularly alarming aspect to be noted is, as mentioned under the project context, that the Southwest of the Province of Buenos Aires contributes substantially to national food security and diversity.**

Against this backdrop, the costs of not acting are constantly incremental in time. Currently, they are expressed in a series of public programs such as the Agricultural Emergency Law with high related costs for the public administration in fiscal terms, a program of revolving funds to sustain activities covering over 2,000 farmers (approx. US\$ 15 million in 2010),<sup>24</sup> as well as important amounts dedicated to the zone in form of public transfers allocated to the farming sector<sup>25</sup>. Besides, the before mentioned Plan for the Development of the Southwest of the Province of Buenos Aires seeks to promote sustainable development of the agricultural production in the intervention zone and receives funding from the annual provincial budget (40 million pesos for 2011, equivalent to US\$ 10 million)<sup>26</sup>. The related revolving funds focus on financing production factors for agriculture and cattle ranching such as seeds for sowing. The proposed project intends to get involved in this mechanism with complementary in-kind measures to promote sustainable technologies aimed at filling persistent technology gaps that impact irrigation systems, forage banks and management of grazing plots.

**Taking these factors into account, the intervention through the proposed and potentially emerging additional and/or alternative measures is highly beneficial in terms of opportunity costs; compared with the public expenditure on alleviation measures the proposed investment is moderate, and its following concrete benefits directly contribute to reduction of currently growing vulnerabilities:**

- **Capacity for greater responsiveness by state institutions and production sectors through an adequate information system (early warning) as well as through development of institutional capacity.**

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<sup>24</sup> Report from the Office of the President:

[http://www.casarosada.gov.ar/index.php?option=com\\_content&task=view&id=7301&Itemid=66](http://www.casarosada.gov.ar/index.php?option=com_content&task=view&id=7301&Itemid=66)

<sup>25</sup> Reports from the General Accounting Office of the Province of Buenos Aires:

<http://www.cgp.gba.gov.ar/Presupuestaria/XlsViewer.aspx?DocName=MunicipiosData/Data/06-2008/Archivos/Subsidios.htm&DocTitle=Subsidios y Transferencias>

<sup>26</sup> [http://www.lanueva.com/edicion\\_impresa/nota/3/12/2010/ac3047.html](http://www.lanueva.com/edicion_impresa/nota/3/12/2010/ac3047.html)



- Increased planning capacity for responsive public policies through coordination mechanisms across the relevant institutions and civil society.
- Greater adaptive capacity of the local communities through mechanisms that contribute to an increased interaction across the key stakeholders (ownership).
- Greater adaptive capacity of local farmers with focus on increased resilience of productive ecosystems through mechanisms that contribute to the sustainable management of natural resources in productive ecosystems.
- Increased capacity for production planning through the transfer of capacities for monitoring, transparent management and participation in decision-making processes.

**D. Describe how the project / programme is consistent with national or sub-national sustainable development strategies, including, where appropriate, national or sub-national development plans, poverty reduction strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist.**

Mitigation of climate change and conservation of natural resources are important pillars of the Government's current program, which aims at mainstreaming them into the key economic sectors.<sup>27</sup>

Thus, the institutional frameworks of several national agencies currently include development of a series of sectoral programs in line with the project objectives. In particular, the Secretariat of Environment and Sustainable Development (*Secretaría de Ambiente y Desarrollo Sustentable*, SAyDS), the Secretariat of Energy and the Ministry of Agriculture, Livestock and Fishing (MAGyP), among others, are promoting various related national programs such as the Strategic Food Plan, Provincial Agricultural Services Program, and National Action Plan to Combat Desertification, which are described below.

The SAyDS is the lead agency to determine the minimum environmental protection requirements to improve, restore, conserve, develop and conduct sustainable management of the native forests and related environmental services. Through Law 26,331 on the Conservation of Native Forests adopted in 2007, the SAyDS has started a mayor system of Payment for Ecosystem Services nation-wide contributing, among other

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<sup>27</sup> [http://www.casarosada.gov.ar/index.php?option=com\\_content&task=view&id=24&Itemid=34#j](http://www.casarosada.gov.ar/index.php?option=com_content&task=view&id=24&Itemid=34#j)

things, to increasing resilience of ecosystems to the impacts of climate change as well as reducing GHG emissions through avoided deforestation.

The Directorate for Climate Change was created under the SAYDS to address climate change induced challenges. It is the focal point of the United Nations Framework Convention on Climate Change (UNFCCC), of which the country is a party since 1993, having hosted COP4 in 1998 when the Buenos Aires Action Plan was adopted. As a party to the Kyoto Protocol since 2001, Argentina has made important progress in terms of mitigation of climate change through a program of Clean Development Mechanism, including contribution of a methodology for GHG reduction through reforestation that was adopted in 2010 by the UNFCCC.

At the initiative of the SAYDS, the Governmental Climate Change Committee was created in 2009. This operational instance is an institutional coordination arrangement that serves as a platform to disseminate and validate sectoral processes related to climate change and coordinate across various areas of the national administration. The Governmental Committee has begun developing a National Climate Change Strategy (in Spanish, *Estrategia Nacional en Cambio Climático*, ENCC), with the purpose of coordinating the participation of Government sectors and establishing a national action framework in this field. Such strategy comprises the necessary policies, measures and actions, mainly focusing in low carbon economic growth. The strategy recently underwent a consultation process whose final results will be published in short during 2011. Furthermore, the Governmental Committee coordinates the activities included in the Third National Communication (TNC) on Climate Change to the UNFCCC, the main purpose of which is to design policies and measures (P&M) for climate change that can be integrated into sectoral development strategies, including evaluation of their economic, environmental and social impacts. The TNC will provide a science-based tool for decision-making not only for the SAYDS but also for various other areas of the national, provincial and municipal governments.

More concretely, and according to the guidelines set forth by the National Focal Point of the UNFCCC, adaptation to climate change is a priority area within the strategy of the National Government. Given the structure of the Argentine economy, one of the pillars of the TNC will be a comprehensive analysis of the challenges posed by the evolution of climate conditions on the farming sector. The Fourth Appraisal Report (AR4) of the Intergovernmental Panel on Climate Change (IPCC) anticipated substantial dilemmas faced by agriculture, but did not include an evaluation of particular regional challenges. It is on this point that the TNC aims to

**inform the UNFCCC and highlight the national, subnational and local issues faced by Argentina: the whole of its productive belt will be affected by increases in soil temperatures and changes in rainfall patterns, including the occurrence of extreme weather events.**

As for the United Nations Convention to Combat Desertification (UNCCD), the SAYDS, through its **Directorate of Soil Conservation and Fight against Desertification**<sup>28</sup> was set up as National Focal Point in 1994. Currently, Argentina, as host-country to the COP9 in Buenos Aires in 2009, is chairing the Conference of the Parties (COP). Since 1995, the UNCCD Focal Point has developed a National Action Plan (in Spanish, *Plan de Acción Nacional, PAN*)<sup>29</sup>, with the main objective of combating desertification and mitigating the effects of drought in order to contribute to sustainable development of the affected zones. The following actions developed within the framework of the PAN are especially relevant for the project:

- Land Degradation Assessment in Drylands (LADA-FAO), aimed at assessing the scope of dry land degradation: in terms of the outputs of the proposed adaptation project, the related evaluation methodologies will serve creation of the early warning system, social and productive survey methodologies and the Good Practice recommendations for dry lands.<sup>30</sup>
- Linked to the LADA project, an evaluation of economic impacts of climate change in dry lands in Argentina is being conducted jointly with ECLAC and the Global Facility. The first results are expected by September 2011 in form of a climate change vulnerability zoning of the Argentine regional economies. The final results could support decision-making within the project framework and ideally serve as a basis to conduct a net present value (NPV) analysis of the costs of inaction in the zone by the Regional Consultative Observatory on Climate Change and Desertification (component 1).
- GEF-Project “Sustainable Forest Management in the Transboundary Gran Chaco American Ecosystem” runs under the umbrella of the Sub regional Action Plan held by the National Focal Points of the UNCCD of Argentina, Paraguay and Bolivia. The regional coordination of this project falls into the competence of the Directorate for Soil Conservation and Combat against Desertification of the SAYDS, and one of its main components is creation of an Early Warning System operated by a transboundary execution committee<sup>31</sup>.
- Project on Sustainable Management of Arid and Semi-arid Ecosystems to Control Desertification in Patagonia (GEF-Patagonia): The intervention zone operates on an ecosystem that is similar to that of Southwestern Buenos Aires, and respective experience and lessons could be shared between the projects. It could also be possible to achieve a geographically contiguous application of the measures.<sup>32</sup>

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<sup>28</sup> <http://www.ambiente.gob.ar/?idseccion=25>

<sup>29</sup> <http://www.ambiente.gob.ar/?idseccion=143>

<sup>30</sup> Information on LADA: <http://www.ambiente.gob.ar/?idseccion=158>

<sup>31</sup> [http://www.thegef.org/gef/gef\\_country\\_prg/00](http://www.thegef.org/gef/gef_country_prg/00)

<sup>32</sup> <http://gefpatagonia.ambiente.gov.ar/?IdArticulo=2215>

- Project for the Construction of Strategic Financial Partnerships for the Consolidation of Argentina's PAN: From the standpoint of the proposed project, the following interventions are relevant: review of the regulations on land use planning and soil conservation, first experiences in the application of revolving funds and design of a multi-sector fund to combat desertification, as well as experience of implementing the MERCOSUR Strategy to Combat Desertification.

Since this adaptation project falls within the framework of the PAN, it is expected to benefit from the above mentioned experiences and specifically the review of regulations, development of an international early warning system, and the Good Agricultural Practices applied. Likewise, should implementation of a multi-sectoral fund to combat desertification be achieved, it could continue supporting adaptation measures that prove successful under this project after it is completed.

**The Ministry of Agriculture, Livestock and Fishing (MAGyP) has been promoting, since 2004, production of biofuels and bioethanol emphasizing production and use of vegetable oils and animal fats for biofuels, and sugarcane, corn and sorghum for bioethanol. It also encourages development of sustainable production systems in degraded areas through forestry practices and infrastructure improvements for agricultural services to increase competitiveness, exports and employment. The MAGyP attaches special importance to these issues with reference to Southwestern Buenos Aires, where it implements Productive Revolving Funds and no-interest credit lines in support of small and medium farmers. Additionally, it enforces the Farming Emergency Law in the affected districts. All these activities are framed within the National Strategic Food Plan.<sup>33</sup>**

**As from 2003, and within the new national macroeconomic context of recovering competitiveness of the productive system, the Provincial Agricultural Services Program (PROSAP) became the main tool to promote the provincial farming economies throughout the country. US\$650 million have been invested by the Program in over 80 projects that have directly benefitted a very significant number of Argentina's farmers.<sup>34</sup> PROSAP is being implemented with support of the Interamerican Development Bank (IDB) and the World Bank.**

**The Secretariat of Energy promotes auto generation of electricity with the objective of achieving a contribution of 8% of renewable energy sources to the national power consumption in a 10-year period. The US\$ 105,000,000 Rural Markets Renewable Energy Project (PERMER), which is being**

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<sup>33</sup> <http://www.minagri.gob.ar/site/index.php>

<sup>34</sup> <http://prosa.gov.ar/>

implemented with the objective of supplying electric power to Argentina's scattered rural population and improving their settlements and living conditions, promotes sustainable management of energy resources and adoption of renewable energies by eliminating market barriers. In many cases, these are concrete adaptation measures and can prove extremely useful for the project yet provided its similar geographical approach. This is especially true as according to the National Program for Disaster Risk Prevention and Reduction and Territorial Development, promoted by the Ministry of Federal Planning and Public Works<sup>35</sup>, the zone presents high averages of infrastructure vulnerability as compared to the rest of the province. Installation of decentralized infrastructure in the rural zones of the area contributes to reducing vulnerability to impacts of climate variability and change, and some of its activities can be contemplated by the project as potentially eligible activities, e.g. electric pumping of water fueled by solar power.

Other governmental agencies such as the Secretariat of Public Works, Ministry of Federal Planning, Public Investment and Services, National Water Institute and Provincial Directorate of Public Sanitation and Hydraulic Works, have implemented measures which contribute to climate mitigation and adaptation, reinforcing infrastructure and repairing zones devastated or degraded by climate events.

The Agency for Sustainable Development (OPDS), the provincial counterpart of this project, operates various programs in the Province of Buenos Aires. Among these the Agrosolidarity Environmental Program is of particular relevance to the project, as it intends to promote a long term improvement of the population's quality of life and limit misuse of resources. Besides, the OPDS participates in the Regional Council for the Development of the Southwest of the Province of Buenos Aires, which was established by provincial law 13,647 with the specific purpose of promoting sustainable development of the intervention zone. This Council brings together a broad range of provincial and technical institutes, universities and trade associations. Law 13,657 establishes a Development Plan for the Southwest of the Province of Buenos Aires which, among other actions, implements revolving funds for pasture and seeds benefitting the farming sector. Furthermore, the OPDS is currently developing its territorial environmental land use plan within the framework of the earlier mentioned Law for the Protection of Native Forests. This point is important for the proposed project, since a fundamental line in the adaptation to climate

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<sup>35</sup> First Progress 2010 (developed with support from UNDP): <http://www.planif-territorial.gov.ar/html/direcciones/riesgos.php>

change in the Province of Buenos Aires consists in maintaining the ecosystem services provided by the xerophilous forest (*bosque espinal*) of the intervention zone, favoring erosion control for agriculture and livestock.

**E. Describe how the project / programme meets relevant national technical standards, where applicable.**

The project will be developed in accordance with applicable national standards and technical regulations, as it will be executed in cooperation among various agencies of the National Government. Since for the most part it comprises sustainable technical interventions at a micro-scale, it is important to note that the project contemplates cooperating with the National Institute for Agricultural Technology (INTA) and the National Institute for Industrial Technology (INTI). Both institutions maintain technological innovation programs for sustainable development under national and international standards and have broad experience in the field as they maintain their respective extension services in the zone: INTA maintains two extension stations, Bordenave and Ascasubi which, besides introducing new technologies, conduct training programs, vulnerability studies and research on crop impacts under different climate change scenarios. INTA is a national reference institution comprising a Climate and Water Institute, among others, with the mission of generating knowledge and technological developments related with impacts of climate variability and change on natural resources and the Argentine agrifood system. It is a national and international reference point in the areas of agro climatology, agricultural hydrology and remote sensing, through the generation of technological outputs in these areas, designed to meet current and potential user needs.<sup>36</sup>

Furthermore, the World Bank participation guarantees that all activities will be conducted in accordance with national and international fiduciary, technical, social and environmental standards. These quality aspects will be secured throughout the World Bank's project cycle.

**F. Describe if there is duplication of project / programme with other funding sources, if any.**

Currently there are no other funding sources that would duplicate the measures proposed to be undertaken by this project. It should be

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<sup>36</sup> [http://climayagua.inta.gob.ar/que\\_es\\_icya](http://climayagua.inta.gob.ar/que_es_icya)

emphasized that the proposal has an environmental approach and comprises involved productive systems from an agro-ecological perspective. In that sense, the project complements the measures implemented in support of production that were described under the item on compatibility with national strategies; it contributes to related ecological sustainability criteria aimed at preservation of local ecosystems and their services. Although there are important development plans related with agricultural production, without the requested funding the National Secretariat of Environment, as the key agent of environmental policy, would not have sufficient resources to implement the proposed measures and disseminate respective lessons learnt. The proposed project is therefore considered essential to strengthen and improve MAGyP efforts in support of production with an integral approach and concrete pilots on innovative adaptation measures aimed at incorporating climate resilience and sustainability aspects in the use of natural resources in the most climate vulnerable zones of the country.

**G. If applicable, describe the learning and knowledge management component to capture and disseminate lessons learned.**

The dissemination mechanisms are described in greater detail under descriptions of the components 2, 4 and 5. The project contemplates developing a sequence of knowledge management (KM) mechanisms and dissemination of lessons learned from a local to national and international levels. To start at the local level, participatory approach will direct specific activities and development and dissemination of specifically devoted materials. The previously described participatory monitoring and control processes will be integrated into KM activities as they imply an ongoing involvement of the local population from the beginning of the following project preparation, and later on during project implementation. This aspect is especially relevant within the framework of the Sustainability/Exit Strategy (component 4) since it substantially aims at triggering institutional learning processes, participation, knowledge exchange and replication and scale-up of good practices. Finally, project demonstration sites will contribute, from the start and in an ongoing way, to sharing of lessons and training through local disseminators.

Related with this, SAyDS, and the Directorate of Soil Conservation and Fight against Desertification run its own environmental communication program that includes a digital journal comprising thousands of contacts with related institutions and CSOs around the country and world-wide. SAyDS has a specialized technical team for dissemination of environmental information that produces maps and manuals and organizes training

events. Additional to these resources, the project component 2 includes a specific training program for social disseminators and opinion leaders such as journalists and social workers that will be prepared in coordination with related work under the Third National Communication (TNC). Following project preparation, a specific communication strategy will be prepared for dissemination of lessons learned at different levels.

From a geographical perspective, lessons learned will be mainstreamed into existing or currently developed programs: the MERCOSUR/European Union program on harmonization of ecological norms<sup>37</sup>, whose chapter on desertification is run by the National Action Plan of the UNCCD and aims to establish homogeneous areas in Argentina, Uruguay, Paraguay and Brazil in order to apply and systematize experiences related to combat against desertification under the umbrella of the MERCOSUR–UNCCD Strategy<sup>38</sup>.

Also at sub regional level, the above mentioned GEF-Project “Sustainable Forest Management in the Transboundary Gran Chaco American Ecosystem”<sup>39</sup> will foster the exchange of lessons learned, especially regarding the multi-stakeholder operated Early Warning System. As it is a multifocal project, the GEF activities in the Chaco would be ideal for dissemination purposes as they both focus on synergistic linkages between climate change-related measures and combat against desertification. At national level, dissemination synergies will be mobilized mainly through the LADA-CEPAL project operated by the Directorate for Soil Conservation and Combat against Desertification, as well as through the dissemination and knowledge-management components of the National Climate Change Strategy and the TNC, which will be implemented by the Directorate for Climate Change.

At the national level, other vulnerable regions in Argentina will be able to draw from any lessons gained through this project. There is a lot of replication and scale up potential within the Province of Buenos Aires, and the target area is further representative of many Patagonian regions, including the provinces of Río Negro, Chubut, Neuquén, Santa Cruz and Tierra del Fuego. This makes the project a good laboratory for testing out adaptation approaches, and further replication options exist in terms of specific measures. In Patagonia, pastoral systems are vulnerable to

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<sup>37</sup> Programa MERCOSUR/Unión Europea sobre Econormas  
[http://www.mercosur.int/msweb/SM/Noticias/Actas%20Estructura/2008\\_GMC\\_SGT6\\_0208.html](http://www.mercosur.int/msweb/SM/Noticias/Actas%20Estructura/2008_GMC_SGT6_0208.html)

<sup>38</sup>

[http://www.ambiente.gov.ar/archivos/web/MERCOSUR/File/Grupo%20ad%20hoc%20desertificacion%20I/V/FINAL\\_ESTRATEGIA\\_MERCOSUR.pdf](http://www.ambiente.gov.ar/archivos/web/MERCOSUR/File/Grupo%20ad%20hoc%20desertificacion%20I/V/FINAL_ESTRATEGIA_MERCOSUR.pdf)

<sup>39</sup> [http://www.thegef.org/gef/gef\\_country\\_prg/00](http://www.thegef.org/gef/gef_country_prg/00)



external factors such as fluctuation of market prices and climate variability. Uncertainty reduces profitability of the systems, increments poverty, induces migration striving for off-farm income, and hampers prevention of rangeland degradation.

Experience gained through the project will be useful for exchange and KM strategies related with the GEF project in Patagonia (see above), though its activities focus on communication strategies and networking between small-scale farmers in a similar and geographically adjoining ecosystems in the neighboring provinces of La Pampa and Río Negro. In these provinces, existing livestock production techniques need to be modified to reverse processes of desertification and related ecological degradation. If this does not occur, decreases in farm capital, further flocks deterioration and gradual abandonment of sheep production is expected to continue. This would lead into increasing environmental degradation that is already inducing ranch abandonment, such as loss of grassland species diversity, wind erosion, etc. Consequently, rural migration to urban areas will most probably increase and if not prepared, these people with mismatched skills are expected to be marginalized in terms of income sources and thus continue to live in conditions of extreme poverty.

H. Describe the consultative process, including the list of stakeholders consulted, undertaken during project preparation.

In the framework of a “Letter of Expression of Interest” that the OPDS conveyed to the SAyDS in order to identify and develop this project concept, joint field visits were conducted to survey the zone and verify the issues applying, among others, the LADA methodology (developed jointly with FAO) to survey soil degradation. During the field mission, consultations were organized with the Town Councils of the affected municipalities with local farmers and with teams of researchers of the *Universidad Nacional del Sur*. Later on, an analysis of the zone was carried out involving climate change experts from the National Institute for Agricultural Technology (INTA), Ministry of Agriculture (MAGyP), National Water Institute (INA), and Office of Agricultural Risk (ORA) through a process of inter ministerial meetings. The reconnaissance visits were accompanied with a series of interviews with representatives of the primary project beneficiaries so that, prior to the development of this proposal, opinions and needs of small farmers, municipal officials and general population were gathered.

The consultation process was extended in the context of the workshops related with the First International Desertification Congress of the Province of Buenos Aires, organized by OPDS in 2010. Said Congress was supported by the SAyDS and had a broad local, national and international participation.

The development of the main project lines was carried out with contributions received in consultation with FAO in Roma and the German Technical Cooperation Agency (GIZ; former GTZ), and the development of this proposal took place within the framework of a specifically established working committee of the UNCCD and UNFCCC Focal Points, and further support is provided by the International Migration Center (CIM).

During the Second International Congress on Desertification of the Province of Buenos Aires, to be held again in June 2011, on site validation workshops are planned with key stakeholders, including again participation of the affected population.

During the preparation phase, a specific consultation process will be planned and carried out with key social stakeholders identified through a social evaluation. The consultation process will focus on the project's design aspects, its priorities and participation mechanisms during the execution. Consultations will likewise be held on its environmental and social impacts and the respective mitigation measures as required. All consultations will be carefully documented and reported in the final project document.

I. Provide justification for funding requested, focusing on the full cost of adaptation reasoning.

As previously described in the cost-benefit analysis, the public costs that are currently being borne to finance remedial measures to address these issues are well in excess of the amount of the proposed project. Whereby the project will not empty future needs of similar remedial finance in a short run, it will pilot a more proactive and integrated sustainability approach. When successful, it is expected to positively influence upon the future use of related available finance.

Taking into account a forthcoming new dry phase induced by the ENOS phenomenon (2015-2050) known as “La Niña”, the project will provide interventions with concrete adaptation measures in the critical aspects which compose the current vulnerability scenario at a key moment in which

it is still possible to react to the threat of a new cycle of resource degradation.<sup>40</sup>

Additional reasoning for project justification can be expressed through projected consequences of a business as usual scenario, whose already high and constantly increasing costs provide a strong message.

In addition to the project zone's high degree of vulnerability in terms of energy and road infrastructure compared with the remainder of the province and alarming values of the main indicators of youth well-being, employment, unmet basic needs and population dynamics underscored by the National Program for Disaster Risk Prevention and Reduction and Territorial Development and promoted by the Federal Planning and Public Works Ministry,<sup>41</sup> there are clear indications that a substantial reduction in the number of farming units is taking place in the zone.<sup>42</sup> According to a study by *Universidad Nacional del Sur*<sup>43</sup>, around 65% of the area allocated to wheat production in the intervention zone suffers from serious degradation processes which result in losses of 250 to 500 kg per hectare in each season.

For cattle breeding, a research conducted by the National Institute for Agriculture Technology shows that the consequences of the recent droughts on the production of grain and animal forage were disastrous implying nil yields and resulting in farmer bankruptcies and abandonment of farm land. Between 2005 and 2009, there was a 40% reduction of the cattle stock in the zone.<sup>44</sup>

Proposed capacity building, education and meteorological monitoring activities together with demonstrative pilots on more sustainable livelihoods would assist communities to better cope with climate variability and change, and to find concrete activities to help slowing down or even halting the on-going deterioration trends in the region. If particularly successful in terms of safeguarding continuity and injecting further

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<sup>40</sup> Glave, Adolfo (2006): La Influencia climática en el Sudoeste Bonaerense y el Sudeste Pampeano, in: Revista Producción Animal 31, 18-23.

<sup>41</sup> First Progress 2010 (developed with support from UNDP): <http://www.planif-territorial.gov.ar/html/direcciones/riesgos.php>

<sup>42</sup> Vulnerability study developed on the basis of the national census: La teoría social del riesgo. Una primera aproximación a la vulnerabilidad social de los productores agropecuarios del Sudoeste bonaerense ante eventos climáticos adversos María Isabel Andrade; Paola Laporta Centro de Investigaciones Geográficas, Facultad de Humanidades y Ciencias de la Educación, Universidad Nacional de La Plata

<sup>43</sup> Silenzi Juan C. and Nora E. Echeverría (2006): Erosión Eólica en el SO bonaerense - El trigo que se dejó de producir durante el período 2001/2-2005/6, Unidad de Conservación y Manejo de Suelos. Departamento de Agronomía, Universidad Nacional del Sur Bahía Blanca, Argentina

<sup>44</sup> Expedite estimation of the eroded soils in the district of Patagones.

replication and scale up, the project could facilitate a broader change towards reversing these trends.

At its best, and within the overall window of opportunity that increasing climate variability and change finally permit to the region in terms of maintaining and promoting agricultural activities,, the project is expected to promote permanence of small and medium farmers in the zone and sustain their participation in the market. The fact that approx. 80% of the farming units (EAPs) in the zone correspond to private natural persons is indicative of a strong family link with the productive land, and for this reason there is a good potential for medium and long term work on the environment.

The funding requested would complement the public programs that are currently under way and expected to continue in order to alleviate the current situation of continued degradation of productive and natural assets at various governmental levels. Thus far the named programs have not been able to address full climate adaptation needs: the requested Adaptation Fund resources would provide a unique opportunity to pilot relevant adaptation measures with their full costs covered.

## PART III: IMPLEMENTATION ARRANGEMENTS

### A. Describe the arrangements for project / programme implementation.

Based on the on-going climate change related cooperation with the World Bank and consequent synergies, the Government of Argentina has requested the Bank to serve this project as its MIE. The project's executive agency will be the National Secretariat of Environment and Sustainable Development (SAyDS). The proposed project concept was developed by an internal working committee established in 2010 between the national Focal Points of UNCCD and UNFCCC with the support of the GIZ through its Integrated Experts Program aimed at promoting synergies across these two areas of public intervention.

At the provincial level, the project counterpart is the Provincial Sustainable Development Agency (OPDS), which is the provincial institution with responsibility, mission and powers on environment and sustainable development in the Province of Buenos Aires. The SAyDS and OPDS have signed an institutional cooperation agreement which contemplates the proposed activity.

The project will be supported by a Steering Committee comprised of the SAYDS Directorates for Soil Conservation and Fight against Desertification and Climate Change, the Government of the Province of Buenos Aires through OPDS and the municipalities of the direct intervention zone, with the objective and the necessary powers to advise on the central intervention lines.

The Project Implementing Unit (PIU) will be comprised of the two SAYDS Directorates and OPDS. The PIU will be in charge of coordinating all the project activities, leading rigorous and participative monitoring and control process, developing and analyzing reports, as well as managing disbursements and controlling their proper application. The PIU will be headed by a General Coordinator and an Administrative Secretariat. The project's General Coordinator will further coordinate activities with a Local Coordinator, who in turn will be mainly in charge of the local institutional relations and the direct supervision of field activities. The Local Coordinator will be sited in an OPDS office located in the intervention zone.

**B. Describe the measures for financial and project / programme risk management.**

The following table identifies the main project risks and the related mitigation measures.

Risks	Risk Mitigation Measures
Climate variability. Changing climatic conditions could affect successfulness of particular adaptation measures to be piloted during the lifetime of the project.	Establishment of the Regional Consultative Observatory on Climate Change and Desertification, as the overall institutional and farmer-level capacity building included in the project design, will enable careful monitoring of climate variability in the region, and consequent consideration of potential adjustments (see components 1 and 2).
Complexity of financial management and procurement. Certain administrative processes could delay the project execution.	Professionals specifically dedicated to FM and procurement will be hired for project execution, and related specific implementation arrangements analyzed during project preparation in order to detect potential bottlenecks in time and define ways to resolve them. A procurement plan will be developed in cooperation with all involved institutions and stakeholders, and financial management arrangements defined during project preparation.
Changes in policy priorities. Policy priorities across administrative levels (national, provincial and municipal) could change or differ during the project implementation.	Establishment of a Steering Committee at a political level and the inclusion of the Provincial Agency for Sustainable Development in the Project Implementing Unit

	will make it possible to strengthen related decision making and safeguard pertinence and compatibility. Additionally, the overall participatory and inclusive project design will improve provincial, municipal and beneficiary level ownership throughout and thus enhance sustainability.
Inter-institutional complexity. The number and different levels of stakeholders involved slow down decision-making and potentially project implementation.	The project coordination will be based on participatory decision-making mechanisms in accordance with the specific activities described under component 5 in order to facilitate consensus, provide early detection of potential sources of conflict and promote constructive dialogue.
Staff turnover in the Project Implementation Unit. Local project counterparts could experience staff turnover that could delay project implementation.	No project component is conceived outside relevant, organic public structures. Every activity will be secured by institutional cooperation agreements.
Lack of incentives at community level. The local communities are not sufficiently incentivized by direct benefits and are thus reluctant to cooperate to achieve the medium and long term objectives.	The intervention lines and activities will be identified and expressed in a results-based management plan through participatory workshops to ensure a high level of involvement of the local communities. On the other hand, the project contemplates interventions through programs targeting the communities and key stakeholders in order to promote their willingness to cooperate at the level of the whole community (farmers and their families, teachers, local opinion leaders, etc.).
Lack of synchronicity between political and technical times. Due to the divergence between the political cycle and dynamics of ecosystem recovery, the political counterparts fail to prioritize cooperation in the project.	The project includes direct benefits for institutional strengthening. The project operates through multi-institutional and multi-sectoral structures so that transparent exchange and interplay of interests and necessary mutual support among them is expected within a clear organic framework. For that reason, special attention is focused on participation of the municipalities, which are directly exposed to local public opinion. In that sense, the project proposes management according to the principle of subsidiary.
Fluctuating exchange rate. Variations in the exchange rate could negatively impact project implementation in terms of interventions that require importing goods and services.	To date, the Government of Argentina is maintaining a relatively stable exchange rate with controlled fluctuation. On the other hand, the overall project aim of strengthening local capacity implies procuring local goods and services as far as possible.

**C. Describe the monitoring and evaluation arrangements and provide a budgeted M&E plan.**

The proposed M&E methodology is based on the experience of the project “Sustainable Development of Arid and Semiarid Zones of Argentina”

conducted between 1999 and 2008 jointly by the National Secretariat of Environment and Sustainable Development, the National Institute for Agricultural Technology and the GIZ (former GTZ). In this respect, the development of the monitoring lines will be supported by the Integrated Experts Program CIM of the German Technical Cooperation Agency through an operational agreement with the Directorate of Soil Conservation and Fight against Desertification that is valid since 2009. In principle, the methodology consists of a combination of control and monitoring activities conducted by the project coordinators in the Implementing Unit and strengthened through organization of participatory workshops with project stakeholders. In the workshops, beneficiaries and other project agents learn evaluation methodologies and become actively involved in developing indicators for later group self-assessments, triggering learning and continuous improvement processes. The proposed methodology is considered especially pertinent for a climate change adaptation project since it has a better potential for the evaluation of soft indicators and improvement of the living conditions of the local population.

The monitoring instances are the following:

M&E ACTIVITY	EXPECTED OUTCOME	RESPONSIBLE PARTIES	ESTIMATED BUDGET	ESTIMATE D TIMEFRAM E
Initial workshop	Validation of the Annual Operating Plan (AOP) and proposed process and impact indicators	Steering Committee, Implementing Unit, General Coordinator	US\$ 8,000	Within 60 days after project inception
Initial report	Available baseline and other initial information	General Coordinator	-----	15 days after the initial workshop
Initial participatory workshops at the local level in the three Districts of direct project intervention	Validation of the proposed AOP, development of intervention proposals, development of local AOPs, and development of a Quarterly Work Plan	Implementing Unit, General Coordinator, Local Coordinator, Local Stakeholders	US\$ 10,000	Not later than during the third month after project inception
Internal workshop for indicator development	Development of indicators and a monitoring plan	Implementing Unit, General Coordinator	-----	At the beginning of the fourth month after project

				<b>inception</b>
<b>Participatory validation workshop with local stakeholders at the provincial project site (OPDS Observatory in Tornquist)</b>	<b>Validation of the monitoring plan and impact and progress indicators for development of an initial measurement plan, commitments, definition of local application groups, mutual knowledge of the proposed activities in each area</b>	<b>Implementing Unit, General Coordinator, Local Coordinator, Local Stakeholders</b>	<b>US\$ 10,000</b>	<b>6 months after project inception</b>
<b>Training workshop on methodology for local validation groups</b>	<b>Local teams trained in monitoring methodology</b>	<b>Implementing Unit, General Coordinator, Local Coordinator, Local Stakeholders</b>	<b>US\$ 8,000</b>	<b>8 months after project inception</b>
<b>Initial measurement process of the means of verification at local level</b>	<b>Final validation of indicators, first measurement experience by local stakeholders, obtainment of baseline</b>	<b>Implementing Unit, General Coordinator, Local Coordinator, Local Stakeholders</b>	<b>US\$ 8,000</b>	<b>Between 6 and 9 months after project inception</b>
<b>Report on the first monitoring phase</b>	<b>Defined baseline Information</b>	<b>Implementing Unit, General Coordinator, Local Stakeholders</b>	<b>-----</b>	<b>Completed as soon as possible during the first year of the project</b>
<b>Quarterly and annual reports</b>	<b>Monitoring information</b>	<b>Implementing Unit, General Coordinator, Local Coordinator</b>	<b>-----</b>	<b>As from the initial workshop</b>
<b>Meetings of the Steering Committee</b>	<b>Tracking and validation</b>	<b>Steering Committee, General Coordinator</b>	<b>US\$ 10,000</b>	<b>At least twice a year after project inception</b>
<b>Meetings to track monitoring process</b>	<b>Validation of Tracking Report development</b>	<b>Implementing Unit, General Coordinator, (Local Coordinator)</b>	<b>US\$ 5,000</b>	<b>Twice a year after project inception , once a year with Local</b>



				Coordinator
Development of periodic reports	Information available to all involved stakeholders	Implementing Unit, General Coordinator	US\$ 3,000	6 electronic and printed newsletters
Specific technical reports	Specific information on progress and impact evaluation, development of inputs to publish lessons and promote inter-institutional dissemination	Implementing Unit, General Coordinator, Local Coordinator, Consultant, Editor, Printer,	US\$ 15,000	At least three specific technical reports (component 1-3)
External Mid Term Evaluation	Evaluation Report	IBRD	US\$ 50,000	At Mid Term
Mid-term local level progress evaluation workshop	Participatory development of progress information, knowledge management with stakeholders	Implementing Unit, General Coordinator, Local Coordinator, Local Stakeholders	US\$ 10,000	At Mid Term
Field visits	Activity control	Implementing Unit, Local Coordinator, IBRD Team	US\$ 10,000	4 monitoring visits
Annual reports	Overall annual information on the project status available	Implementing Unit, General Coordinator, Local Coordinator	-----	Annually
Final External Evaluation	Evaluation Report	IBRD	US\$ 50,000	At the end of the project
Final local level progress evaluation workshop	Participatory development of progress information, knowledge management	Implementing Unit, Coordinators, Local Stakeholders	US\$ 10,000	At Mid Term
Publication of lessons learned (1500-3000 copies)	Information available to local stakeholders and participating institutions	Implementing Unit, Designer and printer	US\$ 10,000	At the end of the project
Final Report	Overall project experience and lessons available in Spanish and English	Implementing Unit, Coordinators, IBRD	-----	At the end of the project

**D. Include a results framework for the project proposal, including milestones, targets and indicators.**


**The results framework for the project proposal, including milestones, targets and indicators will be prepared for the full-fledged project proposal. Gender-specific indicators will be contemplated to enable monitoring of relevant gender aspects.**

**PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY**

**A. RECORD OF ENDORSEMENT ON BEHALF OF THE GOVERNMENT<sup>45</sup>** *Provide the name and position of the government official and indicate date of endorsement. If this is a regional project/programme, list the endorsing officials all the participating countries. The endorsement letter(s) should be attached as an annex to the project/programme proposal. Please attach the endorsement letter(s) with this template; add as many participating governments if a regional project/programme:*

<i>Mr. Ricardo Rodríguez – Undersecretary of Promotion of Sustainable Development</i>	<i>Date: April, 14, 2011</i>
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**B. IMPLEMENTING ENTITY CERTIFICATION** *Provide the name and signature of the Implementing Entity Coordinator and the date of signature. Provide also the project/programme contact person’s name, telephone number and email address*

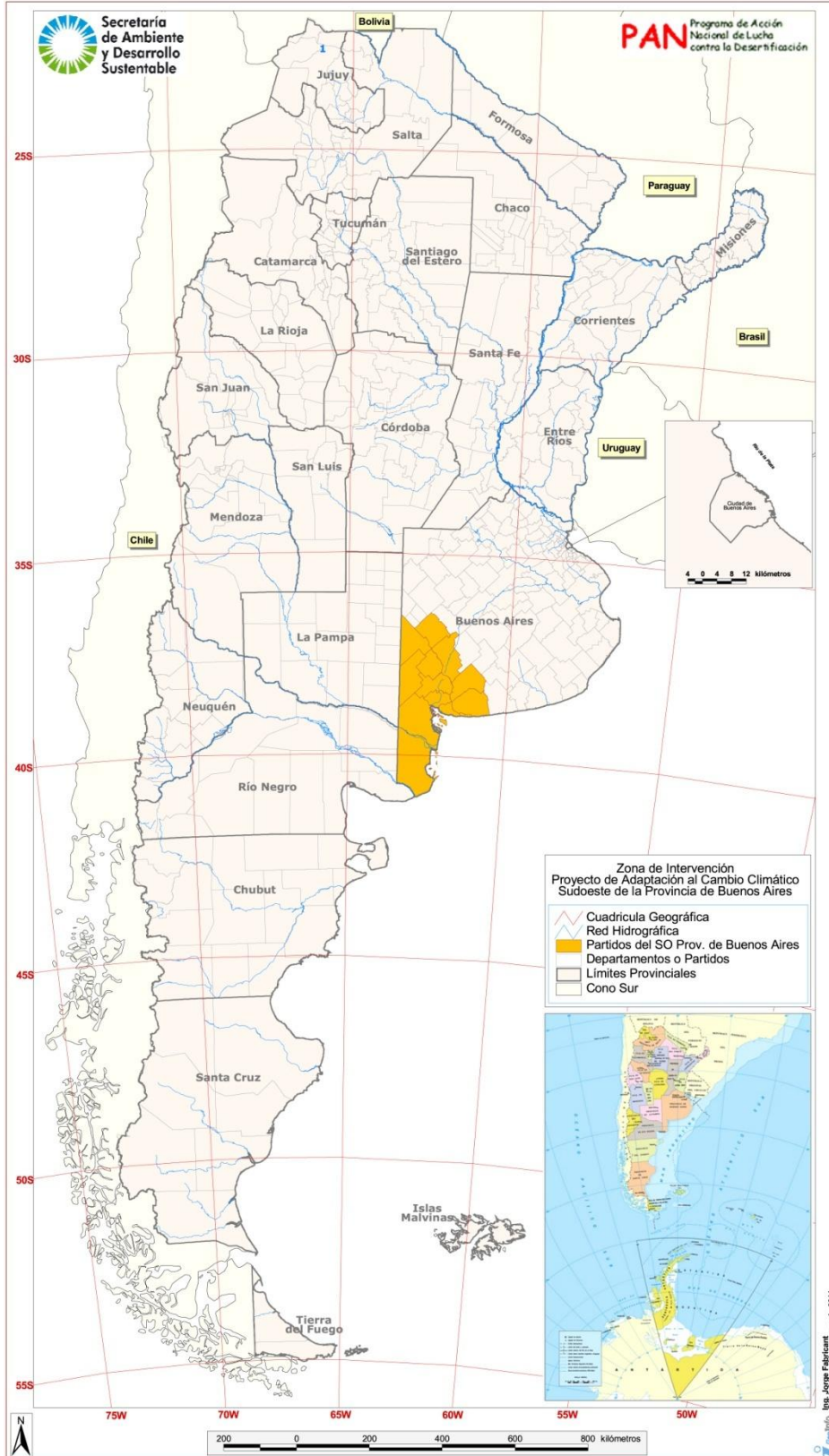
I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans and subject to the approval by the Adaptation Fund Board, understands that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.	
	
<i>Karin Shepardson</i> Program Manager, ENVGC – The World Bank	
Date: April, 18, 2011	Tel. and email: +`202 458 1398, kshepardson@worldbank.org
Project Contact Person: Marcelo Acerbi and Tuuli Bernardini	
Tel. And Email: + 54 11 4 316 0614, <a href="mailto:macerbi@worldbank.org">macerbi@worldbank.org</a> and +1	

<sup>6</sup>. Each Party shall designate and communicate to the Secretariat the authority that will endorse on behalf of the national government the projects and programmes proposed by the implementing entities.

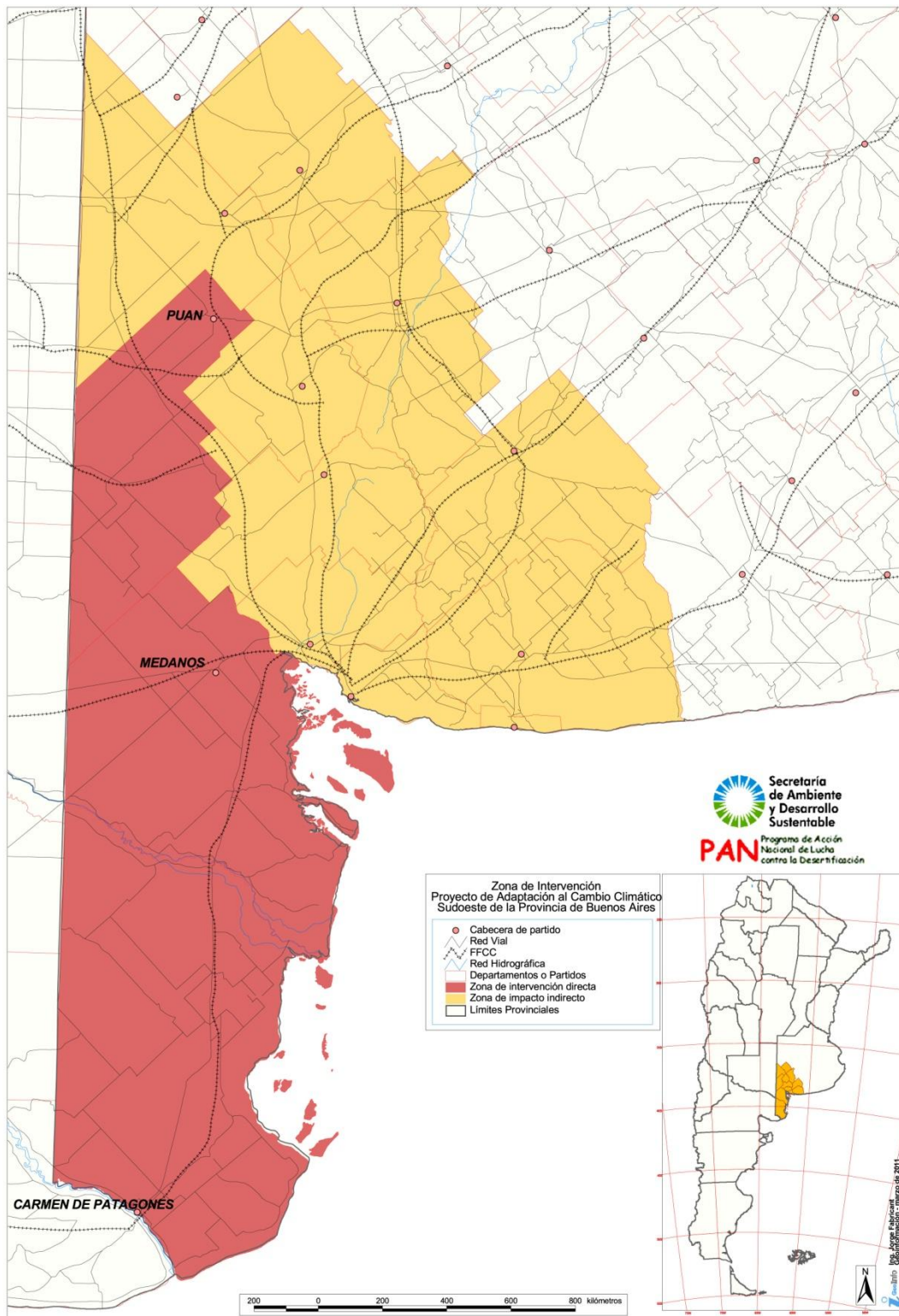
202 473-3640, [tbernardini@wolrdbank.org](mailto:tbernardini@wolrdbank.org)

# ANNEX1 - MAPS

Map No. 1 – Location of the Project’s Area of Influence in the Argentina Republic



**Map No. 2 – Location of the Project's Area of Direct (red) and Indirect Impact (orange)**



## ANNEX 2 ENDORSEMENT BY THE GOVERNMENT OF ARGENTINA




*Jefatura de Gabinete de Ministros  
Secretaría de Ambiente y Desarrollo Sustentable*

*"2011 - Año del Trabajo Decente, la Salud y Seguridad de los Trabajadores"*

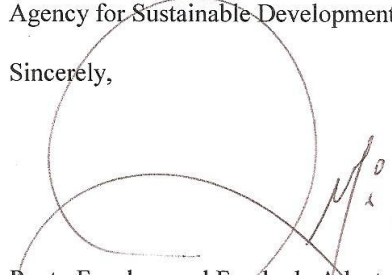
To: The Adaptation Fund Board  
c/o Adaptation Fund Board Secretariat  
Email: Secretariat@Adaptation-Fund.org  
Fax: 202 522 3240/5

**Subject: Endorsement for the "Argentina - Increasing Climate Resilience and Enhancing Sustainable Land Management in the Southwest of the Buenos Aires Province Project"**

 In my capacity as designated authority for the Adaptation Fund in Argentina, I confirm that the above national project proposal is in accordance with the government's national and provincial priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the Southwest of Buenos Aires province, Argentina.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the proposal will be implemented by the World Bank and executed by the National Secretariat of Environment and Sustainable Development and the Buenos Aires Provincial Agency for Sustainable Development.

Sincerely,

  
Punto Focal para el Fondo de Adaptación  
Subsecretario de Promoción para el Desarrollo Sustentable  
Secretaría de Ambiente y Desarrollo Sustentable de la Nación