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
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Washington, DC. 20433
U.S.A
Fax: +1 (202) 522-3240/5
Email: secretariat@adaptation-fund.org

ADAPTATION FUND

DATE OF RECEIPT:
ADAPTATION FUND PROJECT ID:
(For Adaptation Fund Board Secretariat Use Only)

PROJECT/PROGRAMME PROPOSAL

PART I: PROJECT/PROGRAMME INFORMATION

PROJECT/PROGRAMME CATEGORY:	REGULAR SIZE PROJECT
COUNTRY/IES:	URUGUAY
TITLE OF PROJECT/PROGRAMME:	**BUILDING RESILIENCE TO CLIMATE CHANGE IN VULNERABLE SMALLHOLDERS**
TYPE OF IMPLEMENTING ENTITY:	
IMPLEMENTING ENTITY:	**ANII**
EXECUTING ENTITY/IES:	**MINISTRY OF AGRICULTURE, LIVESTOCK AND FISHERIES**
AMOUNT OF FINANCING REQUESTED:	**7 MILLION** (IN U.S Dollars Equivalent)

PROJECT / PROGRAMME BACKGROUND AND CONTEXT:

The agricultural sector

The agricultural sector is regarded as the backbone of the Uruguayan economy: it has represented around 14% of GDP in the past years but represents two thirds of exports including primary and processed products. Livestock, crops and forestry have presented high growth rates in the past decade, leading the upturn of the economy after the devastating crisis of 2002-2003 (caused by financial turmoil and aggravated by a foot-and-mouth disease outbreak). Agriculture could benefit from the boost in commodity prices of the past few years and experienced a remarkable modernization, led by large and medium farmers that are developing business oriented-smart-agriculture systems that enhanced the specialization of the country as a net exporter of agricultural products, either natural or primary processed.

Smallholders[1] according to the last Census were estimated at 32.700, representing nearly two thirds of all farmers but farming only 15% of total agricultural land. The sector contribution to total output in relatively labour-intensive farming activities –yielding higher land productivity levels- is significant (slightly over 50% for vegetables and nearly 40% for fruits). Nonetheless, more than half of smallholders are engaged in extensive livestock production with low productivity levels. These small livestock farmers are mainly engaged in cattle and sheep (rearing or complete closed cycle), representing

[1] The Ministry of Livestock, Agriculture and Fisheries defines Smallholder as a farmer that complies with the following: a) having no more than 2 permanent workers or its temporary equivalent; b) farming no more than 500 ha CONEAT Index 100 (average soil productivity) regardless of the type of land tenure; c) being the farm the main source of income and being the farm the main workplace for the farmer; and, d) dwelling in the farm or in a village no further than 60 km from the farm.

22% of total output and directly competing with large and medium farmers, lagging behind in productivity and with no prospects to develop smart-agriculture systems.

High investments in the crop and forestry sector and their processing industry contributed to a sharp increase in production and exports that caused a strong upward pressure on land prices and leases. The livestock sector has also increased productivity but at a slower pace. Smallholders are more and more unable to achieve the productivity levels required to remain in business and adopt subsistence strategies that increase stocking rate as a means to raise income. The result is an increased pressure on natural resources and higher vulnerability to Climate Change (CC).

Climate Change and Vulnerable Groups

Total land area of the country is 17 million ha, 77% is pasture and grass land suitable for livestock. The Uruguayan climate is warm temperate and sub-humid with four seasons fairly well defined and a rather homogeneous rainfall pattern characterized by strong variability and hydro deficits in the summer caused by increased evapotranspiration. The average annual rainfall is 1200 mm, though there is evidence that the rainfall patterns are changing rapidly, increasing variability and raising the probability of extreme and intense events[2]. There is evidence that the already high variability of Uruguayan rainfall pattern has increased in the last years[3] resulting in more uncertainty and inadequacy of past experience and adopted practices to respond to the new scenarios.

Rainfed natural grasslands systems are the basis of livestock production, particularly for smallholders where infrastructure is deficient and scarce. The most disruptive events for cattle and sheep farmers are agro-meteorological droughts. Overcoming the impact takes one complete biological cycle and the effects are usually widespread throughout the country and the region. The record of severe droughts (1916-17, 1942-43, 1964-65, 1988-89, 2008-2009 and 2010-2011) and moderate droughts (2000 and 2006) show an increase in frequency of this extreme climate event that has devastating effects. The direct losses of the livestock sector caused by the 2008-2009 drought were estimated at USD 342 million and the induced impact on the economy as a whole at over USD 1.000 million, having a higher negative multiplying effect than a crisis in any other economic sector and negative effects over time as a result of the production cycle (e.g. in 2008 the pregnancy rate at national level decreased from 78% to 53% meaning 700.000 less calves in the following year and the mortality rate increased 33%).

[2] The Fourth Report of the IPCC has concluded that projections for the XXIst century based on IE-EE scenarios are the following: almost certain (99% likely) that days and nights will be warmer and less cold in most surfaces; almost certain occurrence of hot periods or heat waves; quite likely increase in frequency of intense rains in total rainfall; likely increase in drought affected areas; likely increase in the probability of intense tropical cyclons; likely increase in the incidence of higher sea level.

[3] Caffera, RM, Doctoral Thesis and Caffera, Cuello and Salaberry, Variabilidad en las precipitaciones, 2007, Caffera, Munka and Cruz, Erosion induced by CC, 2008, and Caffera RM, and Oyhantcabal W, Algunos cambios en la variabilidad de la precipitación sobre territorio uruguayo, 2009

Figure 1 presents maps of the country showing the water content in soil in January over the period 2000-2012, being in red the areas with severe water shortages. These maps present evidence of four droughts in the past twelve years.

Livestock smallholders are more vulnerable to agro-meteorological droughts. They are mostly located in shallow lands with low water storage capacity in the soil, lacking the aptitude to bear hydro-stress periods. These are the Basalto region[4] in the North / North-West of the country, with most of its area in the departments of Artigas, Salto, Paysandú and Tacuarembó and the East Hills region[5], South East / East, mostly located in the departments of Treinta y Tres, Lavalleja, Maldonado and Rocha. Map 1 shows the water storage capacity of Uruguayan soils, being the greener areas the ones with deeper soils and high absorption and storage capacity. Map 2 shows the location of the Basalto and East Hills regions, where the shallow soils are located.

Available statistics indicate that 7.640[6] farmers are located in these two regions, out of which it is estimated that approximately 4.900 (64%) would fall under the category of livestock smallholder (see Annex 1 for detailed statistical information).

Livestock sector in Uruguay is based on grazing of temperate native grasslands, part of the Pampa biome (see Map 3) which presents a rich biodiversity. Natural dry matter production of these grasslands is not only the basis for the international competitiveness of the sector, but also provides a highly valuable source of resilience to the impacts of CC. Biodiversity of grasslands plays a critical role in the sustainability of the systems. Avoiding degradation (loss of valuable species, invasion of weeds), restoring original properties of grasslands and introducing improvements through fertilizers and legume seeds are key to build resilience in these agro-ecosystems (reducing the recovery period after climatic disturbance),

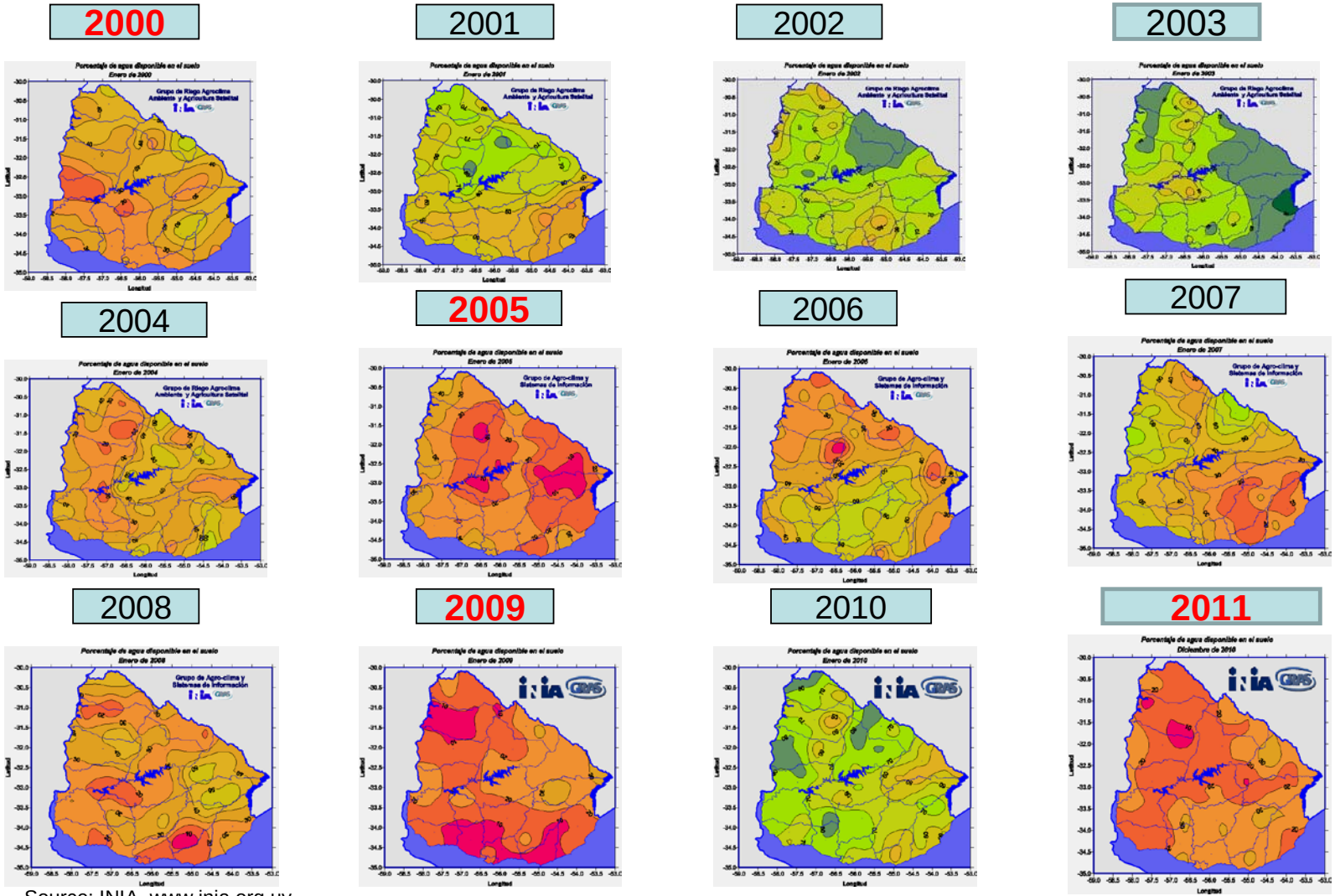
Small farmers manage higher stocking rates that degrade native grasslands and, in the long run, undermine the resilience of their own productive systems. In situations of water stress, high stocking rates rapidly exhaust the forage capacity in these shallow lands leading to critical situations. The nutritional deficit triggers a sequence of losses caused by low market prices due to saturation of sales, a downfall in reproductive performance, an increase in mortality rates and a decrease in assets and income that lasts for at least three years. Larger farmers are able to introduce adaptation strategies such as providing supplementary feeding or leasing greener areas to move their stock. These strategies are not efficient as an overall response to the event and smallholders lack the financial capacity to adopt them. As a result, in face of a drought the vast majority of small livestock farmers end up poorer and in risk of not being able to sustain their livelihoods, compelled to sell their land and migrate to the shanty towns in sub-urban belts.

[4] The Basalto Region of shallow soils comprises the Soil Units Cuchilla de Haedo, Curtina, Masoller and Queguay Chico.
[5] The East Hill Region comprises the Soil Units Jose Pedro Varela and Santa Clara.
[6] The country has a well established statistical system to control cattle stock and has implemented in the last years a traceability system that allows knowing the stock at any given point in time.

There is no recent data on the number of female headed-households among the smallholder sector, although a survey conducted in 1999 provided an estimate of 12%.[7]. Nonetheless, available estimates from 2007 indicate that poverty incidence in rural areas is higher among women (28%) than men (24%), except for groups over 65 years old. Extensive production systems in small plots and reduced income levels create very little employment opportunities for youth and women in small farms. Teen-agers and young men and women migrate in search of employment to small villages and large urban areas, forced to drastically change their livelihood and leaving behind an aging smallholder community.

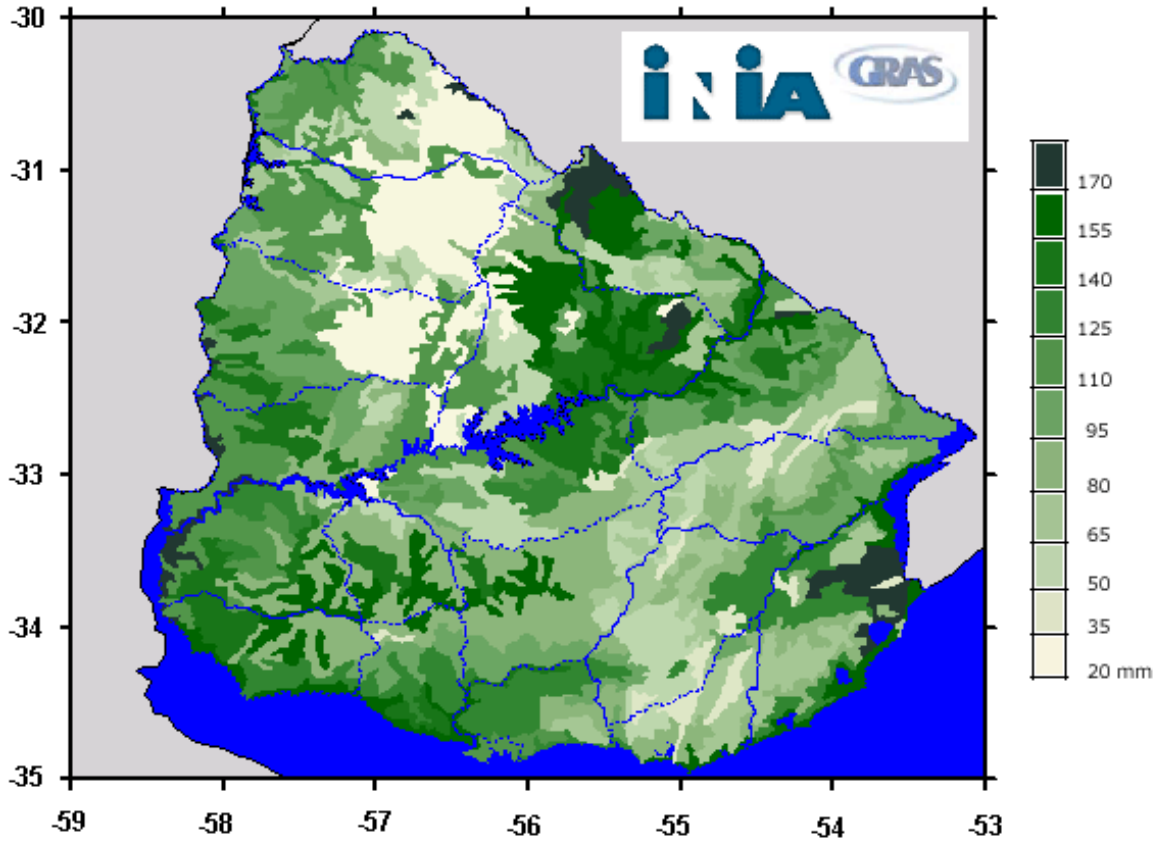
[7] Encuesta Equipos Mori. Encuesta de actitudes y comportamientos tecnológicos de los ganaderos uruguayos. Serie FPTA-INIA, Agosto de 2003.

Figure 1
Water content in soils in January (red = very low, green = high)



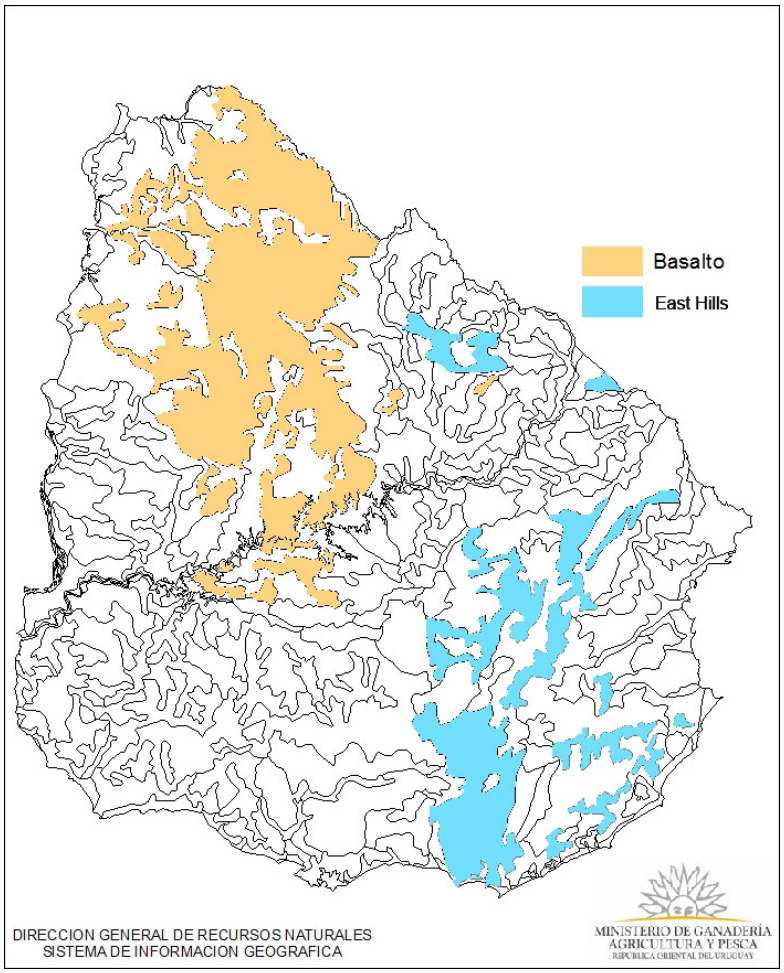
Source: INIA, www.inia.org.uy

Map 1
Water storage capacity of soils



Source: INIA www.inia.org.uy

Map 2
Basalto and East Hills regions



Source: MGAP, RENARE

Map 3
Pampa Biome

Source: www.conservegrasslands.org

The current policies of the Ministry of Livestock, Agriculture and Fisheries (MGAP) grant priority to promoting sustainable competitiveness with social inclusion, to adaptation to climate change and to strengthening the capacity of the agricultural and agro-industrial sector to compete in the international market. The Government of Uruguay (GOU) is highly committed to reduce social inequalities in the urban as well as in the rural sectors. An important part of these efforts focuses on supporting smallholders to improve their asset base and increase their human and social capital to improve and expand the opportunities to sustain their livelihoods. A key factor in this line of action is the strengthening of local capacities: the MGAP has promoted the establishment of development boards at department level (Agricultural Development Councils-CDA) and at local level (Rural Development Boards-MDR) where grass-root organizations and public institutions work together to translate national policies into meaningful actions at local level ensuring participation of all stakeholders. There are CDAs established in all 19 departments of the country and 36 MDRs operating at present. These local networks are involving 315 groups and organizations that meet together to address developmental issues, promoting local empowerment and sustainability. These groups are gaining awareness of the risks stemming from CC but most of the agenda is devoted to solve emergencies and short term issues. The participation of smallholders in these networks is still limited and actions plans to increase resilience to CC are not in place.

CC is also among the highest priorities of the GOU. In 2009, the National Climate Change Response System was created aimed at coordinating and planning the required public and private actions and initiatives related to risk prevention, mitigation and adaptation to CC. As part of this system, a Coordinating Group was established consisting of various line ministries including the MGAP and the Ministry of Housing, Land Planning and Environment (MVOTMA). In addition, an Advisory Commission comprising experts from academic, technical and research institutions has also been established. In this framework, Uruguay is exploring strategies that would enable the country to better face the effects of CC generating benefits to both the local and global environment. Amongst these is the National Action Plan for Climate Change, which through inter institutional and multidisciplinary working groups proposed a set of mitigation and adaptation measures including those in the agricultural sector.

As a party to the UNFCCC and the Kyoto Protocol, Uruguay is carrying out a series of activities to fulfill its commitments. Through the MVOTMA, Uruguay has submitted the following National Communications: Initial National Communication in 1997, Second National Communication in 2004 and Third National Communication in 2010. In all three cases Uruguay was amongst the first developing countries to comply with the statute.

As a summary, uncertainty, increased variability and more frequent and intense extreme events is the most likely future scenario in Uruguay due to CC. The smallholder sector will be particularly affected, being small livestock farmers located in shallow lands highly vulnerable to agro-meteorological droughts and water shortages. Social inclusion efforts in rural areas need to promote a climate smart agriculture as a key factor to face the challenge of increased variability. The GOU is committed to take action and the

present proposal is a crucial step towards promoting a sustainable climate-smart agriculture that addresses competitiveness, sustainability, food security and stability of production and adaptation to CC at the same time.

PROJECT / PROGRAMME OBJECTIVES:

The overall objective of the project is to contribute to building national capacity to adapt to CC and variability focusing on critical sectors for the national economy, employment and exports.

The project would focus on supporting livestock smallholders in selected Landscape Units (LU)[8] of the Basalto and the East Hills regions to build resilience to CC. The LU would be selected according to a set of criteria that would include the following: a) high proportion of smallholders; b) predominance of native grassland ecosystems on shallow lands, with low water storage capacity, highly vulnerable to drought and hydric stress; c) widespread lack of infrastructure at farm level (or deficient, obsolete facilities) to manage water harvesting and retention and to manage natural resources (fencing, pastures or forestation for shade); and, d) inadequate development or low quality of support services, institutional networks, flow of information and knowledge. Thus, the project would focus on disadvantaged territories with similar characteristics that constitute an identity in terms of resource endowment, ecosystem and social development.

The specific objectives include:

a) Reducing vulnerability and building resilience to climate change and variability in small farms engaged in livestock production (mainly rearing and complete closed cycle) located in extremely drought-sensitive Landscape Units of the Basalto and East Hills regions.
b) Strengthening local institutional networks at the selected LU level targeting climate change adaptation (prevention) and response to extreme events (emergency) in highly drought-sensitive areas.
c) Developing mechanisms for a better understanding and monitoring of the impacts and variability of CC, anticipating and assessing negative events and eliciting lessons learned and identifying and validating best practices and toolkits for adapting to increasing variability of CC.

The main strategies and approaches of the project consist of the following:

[8] The definition of landscape unit follows the definition adopted by the European Convention on Landscape: "Landscape" is defined as a zone or area as perceived by local people or visitors, whose visual features and character are the result of the action of natural and/or cultural (that is, human) factors. This definition reflects the idea that landscapes evolve through time, as a result of being acted upon by natural forces and human beings. It also underlines that a landscape forms a whole, whose natural and cultural components are taken together, not separately.

- The project would focus on the smallholder sector as the most vulnerable population to allocate subsidies and build capacities but would involve all stakeholders in the LU and would develop and assess technologies and toolkits that may apply to other sectors, as a means to reduce overall vulnerability and increase resilience in the medium and long term.
- The intervention methodology would foster an integrated and sustainable management of available resources (soil, water and native grasslands biodiversity) within an adaptation approach that seeks a climate-smart agriculture that is capable of promoting innovation and knowledge management to learn from experience and guide the transformation process.
- The menu of technologies would promote “no-regret” transformations of the production system, that is, would seek productivity gains and income increase as an essential part of sustainable adaptation to CC, regardless of climatic hazard.
- Training and capacity building would target the involvement of children and young men and women aiming at creating new business and employment opportunities, revitalizing the smallholder farming communities and establishing sound grounds for the sustainability of the intervention in the long run.
- The project would be an integral part of the National Action Plan for CC adopted in 2009 and would be guided by its general principles that enhance sustainable development, decentralization and subsidiary action, awareness and prevention, equity and solidarity, participation and consultation, coordination and cooperation.

The expected results of the intervention are: a) an increase in productivity and decrease in variability (direct negative impacts) due to moderate and severe droughts in the beneficiary smallholders measured by the increased availability of water and forage, native grasslands biodiversity conservation, better animal performance indicators, low mortality rate by animal category and stability of stock composition over time; b) local institutional networks at the LU level are in place and managing climate risk, involving youth and managing operational instruments that respond in case of emergency in close coordination with the Rural Development Boards and the National Emergency System; and, c) the infrastructure and methodologies are in place for a systematic monitoring on CC and its impact on agriculture, as well as a catalogue of best practices to reduce vulnerability and enhance resilience, innovative instruments and lessons learned from systematized experiences endorsed by all stakeholders regarding adaptation to CC with particular reference to droughts.

Through achieving these outcomes, the present proposal would develop and validate a methodological approach that could be scaled up for other areas and vulnerable groups and CC and variability impacts. The international community is designing financing schemes to support such efforts in developing countries through the UNFCCC and Uruguay would be prepared to present sound proposals based on the experience of this project.

PROJECT / PROGRAMME COMPONENTS AND FINANCING:

Taking into account the proposed strategic and methodological framework, the project components are: a) Adaptation Investments, including investments at smallholders' farm level to increase resilience to droughts and climate variability; b) Strengthening of Local Networks, promoting capacity building at local level to address CC issues in the short, medium and long term; and, c) Knowledge Management, as a regular and permanent assessment of the alternatives at hand and a systematic exchange of knowledge and experience between research and extension institutions, policy makers and producers organizations.

PROJECT COMPONENTS	EXPECTED CONCRETE OUTPUTS	EXPECTED OUTCOMES	AMOUNT (US$)
1. Resilience increase at the farm level in smallholders located in extremely drought-sensitive Landscape Units	Investments in water supply, best practices for native grasslands management (fencing, etc.) shadow trees and animal management improvements benefitting approximately 185 farmers in 2 LU in the Basalto Region	Overall increase in productivity and decrease in variability (direct negative impacts) due to moderate and severe droughts in the supported farms measured by the availability of forage, animal performance indicators (mortality rate by animal category, fertility rate) and the stability of stock composition over time	5.7 million
	Investments in water supply, best practices for native grasslands management (fencing),shadow trees and animal management improvements and agro-forestry schemes benefitting approximately 330 farmers in 3 LU of the East Region		

2. Development of a local network for climate change monitoring, awareness and response	Identification of the landscape units and development of a local network of grass-root organizations and public institutions that conducts a participatory assessment of local capacities and prepares and implements a strategic plan to address CC and variability	The selected vulnerable landscape units have a local institutional network that manages climate risk, involving youth and managing operational instruments that respond in case of emergency in close coordination with the Rural Development Boards and the National Emergency System	0.5 million
	A training plan is formulated and implemented at local level responding to the weaknesses identified		
	A communication strategy is formulated and implemented making use of the CEIBAL Plan internet platform to the extent possible, to involve children and youth		
	Action Plans are developed at the regional/local level to take action according to the agro-climatic warning level		

3. Knowledge Management on CC and variability	Climate information system at the LU level is strengthened to monitor and measure CC and release early warnings on potentially negative climate events, their severity, possible affected areas and time extension, and smart management recommendations.	There is systematic monitoring on CC and its impact on agriculture, a catalogue of best practices, innovative instruments and lessons learned from systematized experiences endorsed by all stakeholders regarding adaptation to CC with particular reference to droughts.	0.4 million
	Studies on CC and variability, research and demonstration plots for agro-forestry systems and technical recommendations to face climate variability with particular reference to droughts (water supply, fencing, shadow trees, stocking rate)		
	Systematic review and exchange of experiences regarding CC adaptation involving research and extension institutions and participatory systematization of project experience to elicit lessons learned for future projects and for the region		
4. Project Execution cost			0.4 million
5. Total Project/Programme Cost			7.0 million
6. Project Cycle Management Fee charged by the Implementing Entity			0.35 million
Amount of Financing Requested			7.35 million

PROJECTED CALENDAR:

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

MILESTONES	EXPECTED DATES
Start of Project/Programme Implementation	Aug 1, 2011
Mid-term Review	Sept 30, 2014
Project/Programme Closing	July 31, 2016
Terminal Evaluation	Dec 31, 2016

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. Project components

Adaptation Investments. This component is providing support to the most vulnerable producers within drought-sensitive LU in the Basalto and East Hills regions, to facilitate the adoption of the adaptation measures identified with the extension and research services. The support would consist of subsidies for investments and technical assistance and training.

The potential beneficiaries are all livestock smallholders –as defined by the MGAP- located in the Basalto and East Hills regions. Taking into account the production systems in the selected regions, farms less than 50 ha were considered residential or depending from other income sources and were not considered as potential beneficiaries. Since the soils in these regions present on average a CONEAT Index[9] around 50 (IC 50), the actual upper limit would be 1.000 ha, corresponding to 500 ha IC 100 as established in the MGAP definition of smallholder. The following table presents the number of livestock smallholders (cattle and/or sheep, rearing and complete closed cycle systems) per farm size in both regions (see Annex 1 for detailed information on total farmers in the Basalto and East Hills regions per soil unit and farm size). .

[9] CONEAT Index 100 (IC 100) means the average productivity of soils. Each land plot has associated an IC that allows converting the actual ha surface into its equivalent to IC 100, thus providing an indicator of production potential.

Table 1
Number of Livestock Smallholders per region per farm size

Land Size (ha)	East Hills	Basalto	TOTAL
50-99	617	164	781
100-199	655	254	909
200-299	335	191	526
300-399	216	165	381
400-499	176	137	313
500-599	90	96	186
600-699	79	95	174
700-799	62	75	137
800-899	49	63	112
900-999	27	51	78
TOTAL	**2306**	**1291**	**3597**

Livestock management measures, including better infrastructure for water and shadow, improved pasture management and biodiversity conservation, are at the core of the technical options to increase resilience to CC and variability in these small farmers. Their main vulnerability stems from the shortage of water, forage and shadow infrastructure, the high stocking rates when compared to a variable forage supply and the lack of proper management to achieve the highest potential forage capacity and preserve biodiversity. The main transformations that could increase income and resilience include: water reservoirs for animal consumption; fencing to create subdivisions for rotational grazing and for conserving/restoring biodiversity of native grasslands; learning to manage adequate -less risky- stocking rates; small forestation to provide shade in each paddock; selection and breeding based on performance records; and strategic supplementary feeding for specific animal categories (e.g. pregnant cows). The project would support the implementation of part of these or all of these combined, depending on the needs of each farm and responding to the specific characteristics of the LU where it is located.

This basic livestock improvement approach would be complemented in the East Hills region with the implementation of more complex agro-forestry systems, in specific areas where this option may seem feasible. The experience in the Basalto region with agro-forestry systems proved not successful due to the type of soils. Diversification introducing fruit trees or high value timber species could become an option in the East region, but the actual implementation would depend on a case to case analysis and decision of the farmer. Agro-forestry systems are innovative in Uruguay, and are expected to provide a number of benefits regarding diversification of income (risk management), pasture improvement and water availability.

The investments costs differ according to the size of the farm. In order to estimate the cost of the intervention, two broad groups were considered: farms between 500 and 999 ha as a proxy to farms between 250 and 500 ha IC 100 (upper limit of the smallholder category) and farms between 50 and 499 ha which could be a proxy for farms between 25 and 250 ha IC 100. The costs of the proposed investments for these two groups are presented in Table 2.

Table 2
Proposed investments per farm size

Item	500 ha IC 100	% grant	Cost	Conv.Factor	250 ha IC 100
1. Water Management					
Technical assistance for project formulation	800	100%	800	1	800
Wells	3.720	85%	3162	1	3.162
Water sheds (+ fencing, tubes y drinking spouts)	2.193	85%	1864	0,5	932
Water distribution	195	85%	166	0,5	83
Innovative solutions	150	85%	128	0,5	64
Subtotal Water Management	**7.058**		**6119**		**5.041**
2. Pasture and Livestock Management					
Fencing	2.800	75%	2100	0,5	1.050
Pasture improvements (20 ha)	1.600	75%	1200	0,5	600
Shadow and shelter	1.800	75%	1350	0,5	675
Animal husbandry	3.386	75%	2540	0,5	1.270
Subtotal Pasture and Livestock Management	**9.586**	75%	7190	0,5	**3.595**
3. Technical Assistance	**1.800**	80%	1440	1	**1.440**
4. Total USD per farm	**18.444**		**14.749**		**10.075**

The territorial approach through LU may allow exploring other innovative solutions that could require an organizational base to become successful. For example, since the main constraint of a smallholder is the amount of land, a possible solution to reduce the stocking rate is the lease of common grazing paddocks to hold specific animal categories in certain periods of the year. Another possibility could be group purchase or production of supplementary feeding (e.g. sorghum silage, grains) to reduce costs and make it more accessible to poor small farmers.

Direct beneficiaries of investments would be selected through transparent processes involving the grass-root organizations either located in the LU or including smallholders located in the LU. The project would target supporting slightly over 500 smallholders with an integrated package of investments and technical services that would promote the transformation of the production system to increase resilience at the farm level. This integrated methodology, the focus on the rearing and closed complete cycle producers and the territorial approach –selecting the most vulnerable LU and planning the investments within the overall framework of the LU strategic needs and opportunities- would ensure an increased resilience at the LU level and at an aggregate level more stability for the whole livestock production system. The total cost of this component was estimated at USD 5:661.426.

Strengthening of Local Networks. This second component would strengthen a specific network embedded in the existing institutional basis of Rural Development Boards promoted by the MGAP to build local capacity to take appropriate and timely action in face of climate variability and extreme events. The purpose of the network is to stand for the territory and to promote participation, democracy and social responsibility within the territory. The objectives of the network are: a) to keep its members informed and aware of CC situation and variability and on technical options available to reduce vulnerability and increase resilience; b) to prepare and implement action plans according to warning levels and particularly in face of extreme events; c) to coordinate

with research and extension institutions to focus on the technological needs of the territory in face of CC and variability and the knowledge gaps that need to be addressed; and d) to make proposals and negotiate with public and private institutions the implementation of projects and programmes that contribute to increase resilience to CC and to raise competitiveness and income on a sustainable basis.

The strengthening of the local network is aiming at providing a sustainable institutional base to monitor CC and variability, establishing the basis for self-governance and cooperation between public sector and grass-root organizations to address the specific issues and threats that face drought-sensitive LU. The project would call upon all existing grass-root organizations, either located in the Landscape Unit or that include smallholders located in the LU as members, to build a participatory forum where the issues of CC and variability would mainstream the development agenda. The LU network would be prepared to take action in face of extreme events, would have the capacity to negotiate and make proposals to the relevant authorities and would keep all its members informed and aware of CC variability and technical proposals to increase resilience, at the same time connecting local and national levels of agricultural policies putting into practice a bottom-up approach.

At the beginning of the project a technical team would systematize and analyze existing information and conduct additional surveys in the Basalto and East Hills regions to identify potential Landscape Units, which are estimated at present as two in the Basalto and three in the East Hills. The results of the identification of LU's study would be presented at a workshop in the region where all stakeholders would be invited to validate the selection through the actual commitment of local grass-root organizations, farmers and support service providers to the project proposal. The closest operating Rural Development Board would take the lead in this initial stage as the sponsor of the network at the LU level and would support the local organizations along the process of creating the network, either to create a new board representing the network or to work as a subgroup of the Rural Development Board.

Once the LU are properly identified and characterized, a second study would focus on the selected LU to analyze in depth the specific vulnerabilities and opportunities that each territory presents to face CC variability and extreme events, particularly droughts. This detailed diagnostic would include participatory rural appraisals (PRA) for farmer groups and a comprehensive institutional assessment of the organizations that would participate in the network (including the situation of the economic, human and financial resources). Based on the assessment and using participatory approaches, a strategic plan for the LU would be developed, containing the basic guidelines that would rule the development of adaptation measures in the territory. This strategic plan would establish the main strategies to increase resilience in the LU, the priorities in terms of investments and territorial coverage, the specific pro-active action that is required, the role of the different stakeholders and the expected results.

The design of a training programme is the following step, derived from the comparison between the current situation depicted by the institutional assessment and the roles that

each organization, group or institution would have to take according to the specific actions identified in the strategic plan. The training programme would foster non-traditional approaches, such as role playing, games and cultural/entertainment activities to encourage youth to participate and integrate in the network. Nonetheless the training would be prepared based on the actual needs of the participating institutions, it is estimated that there would be two basic areas for training, technical issues relating to CC and variability and organizational/management issues, such as governance, negotiation, record keeping, project preparation and implementation.

For a five year period the project would make available basic technical support to the network (one part-time professional) to support the preparation and implementation of the development and adaptation agenda, action plans according to warning levels and a communication strategy at the local level. It is expected that this support would speed up and strengthen the capacity building process by producing advances in a shorter period of time and hence demonstrating the benefits of joining and participating in the network in the short run. The network would also manage a small budget for publications, brochures and implementing a communication strategy. The participation of children and teenagers could be encouraged by involving the computer-based CEIBAL[10] platform available in all rural schools in the training and in the communication activities.

Whereas the Adaptation Investments component is mainly composed of tangibles delivered to smallholders to make effective transformations in their farms to increase resilience at the farm level, the Strengthening of Local Networks component is ensuring the social and institutional sustainability of the intervention by making possible that local organizations would build capacity to assess the situation, prepare effective action plans and implement them in close coordination with the local and national government. The intervention would provide tangible investments to the most vulnerable sector that lacks the capacity and resources to transform their production systems and would promote better practices among all producers in the LU mainstreaming adaptation to CC and variability through the strengthening of the local network. Total cost of this component was estimated at USD 532.500.

Knowledge Management. The KM component is supporting the whole intervention by involving relevant policy making, research and extension and education institutions in a systematic and participatory assessment of results. This component has two main areas: one is the financing of studies, research and infrastructure to improve knowledge and information on CC and variability and the other is the creation, exchange and systematization of knowledge and experience among all public and private institutions that are currently working on CC and variability to create an open forum where all institutions may share advances and coordinate actions. The systematic thinking of experiences is not restricted to review and assess project activities: the project would

[10] The CEIBAL Plan is a public programme implemented since 2006 that provides a free laptop to every child attending public primary schools and that is now being extended to secondary schools. It also provides the infrastructure for Internet access to all primary school venues and training to teachers and pupils.

promote coordination and an efficient use of existing resources by sharing information, knowledge and experience to avoid duplication.

Once the LUs are identified, the project would support the National Meteorological Direction (DNM) of the MVOTMA to implement meteorological stations that would record precise climatic data at the local level. This information would be compiled and analyzed by the DNM and used by the MGAP and relevant research and extension institutions such as the National Agricultural Research Institute (INIA), the national public university (UDELAR), and the Livestock Extension Institute (IPA). This information would allow to improve existing indexes and to provide more specific information on CC and variability regarding agro-meteorological condition so that the local networks may have as timely as possible all the relevant information required to take action.

The project would promote and finance new research projects linked to CC and variability, responding to the needs of the selected LU or other vulnerable territories. The methodology for selecting projects would involve the local networks to ensure relevance at the production level and would promote building up of knowledge and experience, avoiding duplication or isolated experiences that cannot yield validated results.

The project will call upon the UDELAR, national public university with various faculties and research projects linked to CC and variability, the line ministries involved, particularly the Ministry of Housing, Land Planning and Environment (MVOTMA), the projects financed by external donors, the agricultural research and extension institutions, such as INIA and IPA in the public sector and FUCREA in the private sector, the national agrarian settlement institute, INC, etc. All of them would be invited to share knowledge and experiences to nourish the project as well as to reach a consensus on a catalogue of best practices, useful toolkits and priority areas for research and studies. It is estimated that the component would organize at least four seminars for this purpose.

At the local level the component would organize annual workshops in each LU to promote critical thinking on the intervention ensuring ample participation of direct beneficiaries. These events would allow eliciting lessons learned from project intervention, identification of best practices and assessment of the effectiveness of different toolkits to address specific problems.

The direct intervention with tangible support to smallholders in the LU and the strengthening of local networks would be therefore supported by this systematic review and assessment of the technical options and experiences of different institutions and initiatives, leading to an improvement in the knowledge base of the country in the topic and its preparedness to address CC and variability, providing valuable lessons learned and best practices for other countries in the region. The cost of the KM component was estimated at USD 395.000.

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

The project will focus on smallholders producing in highly climate- vulnerable lands, improving their production system using a no-regret approach that would increase their productivity and stabilize their income and capital base. The direct benefits to farmers would stem from the increase in productivity and through the stability in production in face of droughts and climate variability. Productivity of the livestock sector was stagnated around 70 meat equivalent kg per ha until the beginning of the present decade and increased by 35% reaching 94 kg in 2009. Smallholders have not participated from this productivity gain and their high stocking rates determine that the losses in face of droughts are dramatic and enduring over time due to the biological cycle.

Direct benefits induced by the project could be estimated at a minimum of nearly USD 5 million per year only by increasing productivity to the national average levels in the 203.000 ha covered by the LUs. The prevention of losses due to less vulnerability and increase in resilience would be as important in face of a moderate or severe drought. Additionally, reducing drought-induced losses for the rearing sector would reduce the negative impact to the livestock production system as a whole and to the national economy due to the multiplier effects. Indirect benefits of the intervention are significant due to the potential dissemination of best practices and the production of new, innovative knowledge through the Knowledge Management component.

It is important to remark the significant synergies that could be expected between adaptation and mitigation of CC. In fact, the whole set of measures proposed to improve the management of natural grasslands of the LU have a high potential in terms of carbon sequestration in soils. Afforestation and agro-forestry systems would also increase CO_2 sequestration in tree biomass. The ex-ante estimate of project-induced-potential net removals in the soil organic carbon pool of grasslands and in living biomass of trees (using tools such as the Exact spreadsheet developed by FAO, IPCC methods, A/R CDM approved methodologies and VCS methodologies) would be ex-post compared to the actual removals measured through an ad-hoc monitoring plan, thus ensuring that mitigation benefits are taken into account and properly quantified. In this regard, the knowledge on mitigation potential generated by the project could provide sound basis to develop mitigation policies aiming at the use and scaling up of project experience through the implementation of NAMAs, Programmatic CDM and/or other equivalent mitigation strategies.

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

The cost-effectiveness of the proposal is based on the relevance of the problem that tackles and on the highly focused nature of the intervention. The project is aiming at addressing CC variability by focusing on droughts, the most destructive intense event

for the agricultural sector and that is showing higher frequency and intensity in the past decade.

The project is allocating 77% of total budget in direct investments to livestock smallholders. The intervention is highly focused by selecting drought-sensitive LU in shallow lands (Basalto and East Hills) and by focusing subsidies to investments in livestock smallholders with a technical approach that improves productivity, food security, stability, sustainability and resilience (climate-smart agriculture). Consequently, the project is providing tangible support to the most vulnerable group in identified highly sensitive drought territories making a significant contribution to resilience by supporting a sector that lacks the resources and capacity to transform by themselves and that require immediate action to increase productivity and resilience to remain in business.

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.

The project is identified in the framework of an active policy towards climate-smart agriculture promoted by the Government that has recently formulated and adopted a National Action Plan for CC. The Plan was formulated with participatory approaches and obtained the consensus and support of all stakeholders in the private and public sector. The Ministry of Livestock, Agriculture and Fisheries (MGAP) has established competitiveness with social inclusion and environmental sustainability as its top priorities. The present proposal is part of a comprehensive action plan that includes a proposal for a Sustainable Management of Natural Resources and Climate Change Adaptation Project -subject to approval by the World Bank-, a mitigation proposal named Transforming Environmental Liabilities of the Agricultural, Agro-industrial and Urban Sectors into Energy Assets -subject to approval by the GEF- and a proposal on Innovative Index-Based Insurance Schemes for the Smallholder Sector -subject to approval by the Inter American Development Bank-.

The country is committed to social inclusion and the efforts of the MGAP to support smallholders are part of a more comprehensive Government social policy that gives priority to education and capacity building. Social programmes have reached rural areas, having some difficulties to ensure the link between programmes that create opportunities to increase income to the rural poor to those that improve education, health, housing and participation. The present proposal is strengthening the local institutional network to improve participation and empowerment, hence contributing to raise the quality of public policies and programmes' implementation at the local level.

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

The project M&E would monitor and record relevant data on all field activities and through the knowledge management component would open this data to the screening of the major research institutions (INIA and UDELAR) to ensure that technical standards will be achieved.

The MGAP has a vast experience in the implementation of agricultural projects, either using its own technical services or coordinating the execution with other public or private institutions. The project would involve qualified public or private technical service providers according to specific terms of reference and following the experience of successful projects implemented in the rural areas.

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

The only project proposal under preparation that shares similar objectives is the one to be presented to the WB. Nonetheless, the proposal to the Adaptation Fund differs from the initiative under negotiation with the WB in various aspects: the target audience of the AF is much more focused and the approach has a territorial perspective given by the LU framework intervention that is not considered in the other proposal. The WB project would finance investments aiming at sustainable management of natural resources on the basis of open calls at national level. The present proposal recognizes that this type of approach leaves the most vulnerable groups in a disadvantaged position, since their capacity to link with public programmes and to access support services is not equivalent to that of medium and large farmers. Specific focus on territories identified by vulnerability and concentration of smallholders and pro-active action towards the involvement of these groups constitute a significant difference. Such approach provides the grounds to identify innovative solutions that could require an organizational base to become successful (such as lease of common grazing paddocks or group purchase/production of supplementary feeding), which are less likely to address and be successful with an open call methodology.

The other projects under preparation differ in objectives and scope and provide valuable additional inputs that would nourish the KM component: the proposal to the GEF is a mitigation project and the IADB proposal is focusing on a specific instrument for managing risks in a sustainable manner (index based insurance schemes).

The MGAP has received the support of FAO to implement another interesting initiative, closely related to this proposal: TCP/URU/3302 to develop New Policies for Agricultural Adaptation to CC. This project has a budget of USD 325.000 to finance studies, consultancies and research proposals that would address the questions on what are the climatic risks that the agricultural sector is facing and what are the options to reduce risks and building resilience. This TCP is already under operation and its results could be shared with other institutions through the KM component.

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

The project would include a specific component to improve the country's knowledge base on CC and variability and to systematize the project experience to elicit lessons learned. This component is described in Section A and would involve all relevant institutions in policy making, research, extension and tertiary education to make a comprehensive survey on the state of the arts of research projects, studies and initiatives to promote an efficient allocation of resources, by avoiding duplication, assessing results and mainstreaming of best practices.

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

The project identification responds to various consultations conducted by the MGAP, most of them in areas of the Basalto region, that are highly consistent in identifying water stress as their main constraint. In 2009 the MGAP conducted a survey jointly with the Agricultural Association of Salto, covering 675 farmers: the conclusions indicate that water access and water stress are the main problem[11]. In 2007 the Faculty of Agronomy of the UDELAR organized a week event for Thinking on CC and Variability. In this event a study was presented on the social communication of climate issues in the livestock areas of the Salto that contains an appraisal conducted with farmers showing the lack of reliability of climate information among smallholders and the lack of systematic thinking on CC[12].

A national consultation was also conducted as part of the preparation of the National Action Plan for CC. This consultation involved the Rural Development Boards and the results give top priority to droughts as the most disruptive event in agricultural production.

Additionally, participation and empowerment would be key principles guiding the implementation of all activities. It is expected that all milestones of the project would be subject to consultation with stakeholders: the identification of LU, the composition and scope of the local institutional network, the diagnostic and strategic plan of the LU and advances and lessons learned shared through the KM component. The local network of grass-root organizations and institutions would be involved in the selection of direct beneficiaries, in the selection of studies and research projects and in the monitoring and evaluation of all project activities.

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

The project proposal includes the financing of all adaptation measures within the selected LU. The corresponding investment costs have been identified and the intervention would focus on the selected LU to increase resilience. The KM component would coordinate and liaise with other initiatives addressing CC and variability as an

[11] Programa de Apoyo al Sector Productivo, MGAP, 2009
[12] Semana de reflexión sobre CC y Variabilidad Climática, Facultad de Agronomia, 02 al 07 de Julio de 2007

added value. The participation or co-financing of other projects and programmes is not required to achieve the expected results.

PART III: IMPLEMENTATION ARRANGEMENTS

A. Describe the arrangements for project / programme implementation.

The National Innovation and Research Agency (ANII) has been certified before the AF as an execution entity. The ANII would be responsible for the management of the AF grant and the MGAP would lead the technical execution of the project. The ANII would sign a Letter of Agreement (LoA) or Memorandum of Understanding (MoU) with the MGAP for the implementation of the project, where the objectives, activities and budget would be elicited and all the responsibilities of the parties would be listed and agreed. The Project Operations Manual would be prepared in advance, agreed between the parties and included as part of the LoA or MoU.

The Rural Development Direction (DGDR) of the MGAP would be responsible for executing the project through its headquarters and their regional offices in the Basalto and East regions. This Direction is responsible for the implementation of all projects with external financing and has a vast experience in project implementation. It has shared administrative and management services for all projects, including Monitoring & Evaluation (M&E) and procurement, thus creating synergies and reducing operating costs. The DGDR would hire a Technical Coordinator (TC) for the five year period of implementation, supported by an administrative assistant. This TC would be responsible for supporting the DGDR for the overall implementation of annual work plans, in close coordination with the regional offices and all project stakeholders, would coordinate the flow of information and the implementation of case studies and evaluation studies required by the M&E system, and would liaise with the ANII for the timely disbursement of project funds.

The project would set up a Consultative Group with representatives of the MGAP, MVOTMA, the INIA, IPA and the UDELAR. The purpose of the Consultative Group would be to ensure coordination and information at the institutional level. The MGAP has a CC Group that has been advising the MGAP on CC and has been participating in the sector policy making. The CC Group of the MGAP would participate in the Consultative Group. The implementation of the Knowledge Management component would involve the same institutions represented in the Consultative Group, but at a technical and project level. The CC Group of the MGAP would assist the DGDR in the implementation of the KM component.

The MGAP would work in partnership with the MVOTMA for the implementation of specific actions agreed upon by the parties, e.g. the awareness and communication strategy in rural areas.

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

The financial and project risks are relatively low, because all institutions specialized in CC issues are involved (MGAP, MVOTMA, INIA, UDELAR, IPA), the ANII was certified before the AF and the MGAP has a vast experience in development projects (DGDR) and a qualified group in CC (CC group).

Nonetheless risks are under control, the project would have a robust M&E system in the MGAP that would monitor the fulfilment of objectives and targets, would contract external evaluation studies. The project would ensure the flow of information to the M&E system, would conduct participatory case studies and systematizations to ensure focus and attainment of goals.

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

Technical M&E would be conducted by the MGAP, while fiduciary and financial management and monitoring would be conducted by the ANII. The ANII would prepare financial reports and would compile the technical progress reports and send them to the AF on regular basis according to the requirements set by the Fund.

The technical M&E would include semi-annual reports on the progress of project activities and full annual reports where the progress would be compared to proposed targets and the financial information would be checked and reconciled with the ANII records. The technical reports would involve the LU networks to contribute to building management skills: the networks would keep records and send information to the M&E system.

Additionally, at the local level the project would conduct participatory case studies where direct beneficiaries would express their views and assessment of the intervention. The LU network would identify case studies and/or would select case studies proposed by the Project Coordinator or the M&E system, based on the relevance of the case for the LU and on the capacity to elicit valuable lessons learned from the experience to be described, systematized/analyzed and assessed in detail. It is expected that there would be at least three case studies per LU over the implementation period. These case studies would complement and provide inputs for the annual workshops conducted by the KM component to elicit lessons learned and assess the progress, quality and relevance of the intervention.

The MGAP M&E system would procure external impact studies at mid term and at the end of project implementation. The initial study for the identification of LU would constitute the baseline for project implementation with a thorough characterization of the situation before project intervention. The M&E specialists of the DGDR would assist the Project Coordinator in developing the terms of reference of this study to ensure that all required data is included.

The following table provides a budgeted M&E plan.

Table 3
M&E Plan

Activity	Number/Frequency	Responsible	Budget
Study for the identification of the LU (baseline study)	- at the beginning of implementation (2011)	- DGDR / Project Coordinator	- USD 60.000
Semi-annual reports and annual reports	- every year throughout project implementation	- DGDR / Project Coordinator	- USD 110.000[a/]
Case studies at the LU level	- 3 in each LU throughout project implementation	- DGDR / Project Coordinator / UP network	- USD 30.000[b/]
Annual KM workshops at the LU level	- every year throughout project implementation	- DGDR / Project Coordinator / UP network	- USD 50.000[c/]
Mid term external evaluation	- year 2014	- ANII and MGAP	- USD 25.000
Final external evaluation	- year 2016	- ANII and MGAP	- USD 25.000

a/ One third of the total budget allocated for the Project Coordinator, administrative support and operating costs is allocated to M&E activities.
b/ Total number: 15 case studies.
c/ Total number: 25 workshops (one per year per LU).

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

Result	Targets	Indicator	Source of verification	Risks and assumptions
1. Global increase in productivity and decrease in variability of production in face of hydric stress (droughts and rainfall shortages)	- 330 smallholders in 3 LU of the East region with adaptation investments before 2015 - 10% of East smallholders implement agro-forestry systems before 2016 - 185 smallholders in 3 LU of the Basalto region with adaptation investments before 2014 - 10 % increase in productivity of livestock smallholders by 2016	- Farm plans implemented per LU - Investments implemented per LU - Forage source and availability at the farm level - Green Index, Stocking rate Fertility rate per year - Estimated animal weight gains per year by category - Annual stock composition	- Semi annual and annual reports - INIA - IPA records - INM data - SNIG - surveys	- Sanitary situation of the country remains stable (particularly no FMD outbreak)
2. There is a local institutional network that	- LU identified before the end of 2011	- Networks having regular meetings as a sub-group or	- Studies and plans - Semi-annual and	- There are local organizations capable of and

manages climate risk at the LU level, involving youth and managing operational instruments that respond in case of emergency in close coordination with the Rural Development Boards (MDR) and the National Emergency System (SNE)	- Diagnostic and strategic plan prepared for each LU before the end of 2012 - 5 networks identified by year 2012 and fully operational by 2013 - training of 5 networks in CC and variability, management and decision making involving youth by 2014 - action plans and operating manuals according to warning level by year 2015	as an independent MDR - Networks implementing communication on CC, variability and adaptation - Networks presenting proposals to the sponsoring MDR and to the SNE - Networks seeking and obtaining financing from other programmes for implementing their development and CC agenda - Youth members and youth organizations participating in the network - Proposals and initiatives presented by youth members implemented	annual reports - MGAP reports - Brochures and leaflets produced by the networks - Web specific pages and references	willing to develop skills on CC and variability - Young men and women are willing to participate in the network together with adult population
3. There is systematic monitoring on CC and its impact on agriculture, a catalogue of best practices, innovative instruments and lessons learned from systematized experiences endorsed by all stakeholders regarding adaptation to CC with particular reference to droughts and water stress	- the climate data of 5 new meteorological stations (one per LU, established before the end of 2012) is regularly compiled and analyzed to identify variability and CC - annual meetings at the local and national level identify best practices, lessons learned and reach consensus on research priorities that are incorporated to public policies - innovative and original studies and research projects following	- Studies, regular reports on climate data and early warnings on adverse events available at the LU level - Participation of key institutions and recognition attained by the national seminars as milestones on CC and variability - Published catalogue of best practices and toolkits for diagnostics, training, etc. - Positive peer and stakeholders review of financed studies and research project - Awareness of	- Semi annual and annual reports - Climatic data - Network records - Published documents - External assessment studies and case studies - Surveys and consultations on rural population - Web specific references and pages	- Key institutions are willing to coordinate and share knowledge, best practices and toolkits, information on their own projects and studies and openly discuss priorities with other entities

	the agreed priorities are financed each year - national dissemination and communication campaigns increase the awareness of rural population on CC and variability	rural population on CC and variability - Knowledge on adaptation options among smallholders		
Activities:	**Period:**	**Estimated Budget:**		
1.1 Investments at farm level in the Basalto region	2012-2014	USD 2:031.944		
1.2 Investments at farm level in the East region	2012-2015	USD 3:629.482		
2.1 LU identification study	2011	USD 60.000		
2.2 Diagnostic and strategic plan of LUs	2011-2012	USD 50.000		
2.3 Training to network members	2012-2014	USD 62.500		
2.4 Technical support to networks and communication	2012-2016	USD 360.000		
3.1 Establishment of meteorological stations and regular operation	2011-2016	USD 75.000		
3.2 Local workshops	2012-2016	USD 50.000		
3.3 National seminars	2011-2016	USD 20.000		
3.4 Studies, research projects and publications	2011-2016	USD 250.000		
4.1 Technical Coordinator	2011-2016	USD 225.000		
4.2 Administrative support	2011-2016	USD 60.000		
4.3. Operating costs	2011-2016	USD 45.000		
4.4 Case studies	2012-2016	USD 30.000		
4.5 External evaluations	2014 and 2016	USD 50.000		
TOTAL ESTIMATED BUDGET		**USD 6:998.926**		

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

A. RECORD OF ENDORSEMENT ON BEHALF OF THE GOVERNMENT[13] *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:*

Arq. Graciela Muslera, *Minister,* *Ministerio de Vivienda Ordenamiento Territorial y Medio Ambiente*	Date*: (January,11, 2011)*

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 (National Action Plan in Response to Climate Change approved in 2009, prevailing guidelines of the Ministry of Livestock, Agriculture and Fisheries regarding rural development and environmental sustainability, as well as project proposals under preparation aimed at reinforcing previous actions and mainstreaming key strategic principles in agricultural sector policies and programmes, including adaptation to climate change) 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.

6. 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.

Dr. Fernando Amestoy – Executive Secretary of ANII
Agencia Nacional de Investigación e Innovación
(Implementing Entity Coordinator)

Date*: (January,12,2011)*	Tel. and email: Tel. +598 2 916 69 16 Ext 201 Email: famestoy@anii.org.uy
Project Contact Person: Miguel Helou Deputy Manager of Operations Area *Agencia Nacional de Investigación e Innovación*	
Tel. And Email: Tel. + (598) 2 916 69 16 Ext 214 Email: mhelou@anii.org.uy	

ANNEX 1 – Total area by soil unit

REGION AND SOIL UNIT	Ha
BASALTO	
Baygorria	29.557
Cuchilla de Haedo - Paso de los Toros	1.011.549
Curtina	815.072
Masoller	87.211
Queguay Chico	625.714
	2.569.103

EAST HILLS	
José Pedro Varela	453.266
Santa Clara	607.764
Sierra de Aigua	241.946
Sierra de Animas	16.730
	1.319.706

TOTAL	**3.888.809**
% of national territory	**22%**
% of grasslands area under grazing	**28%**

Source: based on RENARE

ANNEX 1 - BASALTO

NUMBER OF FARMS AND TOTAL LAND PER FARM SIZE AND SOIL UNIT

Queguay Chico			Masoller			Curtina			Cuchilla Haed	
Farm size (ha)	Nr of farmers	Total land (ha)	Farm size (ha)	Nr of farmers	Total land (ha)	Farm size (ha)	Nr of farmers	Total land (ha)	Farm size (ha)	Nr of farmers
0-49	135	2.426	0-49	0	0	0-49	108	1.989	0-49	301
50-99	40	2.771	50-99	3	181	50-99	52	3.794	50-99	108
100-199	70	10.181	100-199	11	1.643	100-199	91	13.475	100-199	168
200-499	109	36.417	200-499	23	7.710	200-499	204	69.161	200-499	326
500-999	118	87.657	500-999	31	21.555	500-999	194	138.416	500-999	206
1000-2499	105	155.289	1000-2499	20	30.209	1000-2499	157	234.226	1000-2499	170
2500-4999	48	177.352	2500-4999	3	9.974	2500-4999	62	217.171	2500-4999	47
5000-9999	14	95.702	5000-9999	0	0	5000-9999	14	99.137	5000-9999	12
10000 +	4	48.395	10000 +	0	0	10000 +	5	57.057	10000 +	5
TOTAL	643	616.190	TOTAL	91	71.272	TOTAL	887	834.426	TOTAL	1.343

Source: based on SNIG data

ANNEX 1 - EAST HILLS

NUMBER OF FARMS AND TOTAL LAND PER FARM SIZE AND SOIL UNIT

JP Varela			Santa Clara		
Farm size (ha)	Nr of farmers	Total land (ha)	Farm size (ha)	Nr of farmers	Total land (ha)
0-49	930	17.791	0-49	579	13.275
50-99	405	28.858	50-99	358	25.877
100-199	402	57.803	100-199	425	60.816
200-499	428	137.438	200-499	487	157.038
500-999	163	116.165	500-999	225	154.271
1000-2499	99	144.673	1000-2499	119	173.954
2500-4999	18	58.417	2500-4999	21	72.905
5000-9999	9	63.342	5000-9999	5	31.012
10000 +	3	35.812	10000 +	1	14.256
TOTAL	2.457	660.299	TOTAL	2.220	703.404

Source: based on SNIG data

ANNEX 1 - BASALTO AND EAST HILLS

NUMBER OF FARMS AND TOTAL LAND PER FARM SIZE AND REGION

	Number of farmers			Total Land		
Farm size	East	Basalto	TOTAL	East	Basalto	TOTAL
0-49	1.509	544	2.053	31.066	10.043	41.109
50-99	763	203	966	54.735	14.434	69.169
100-199	827	340	1.167	118.619	49.844	168.463
200-499	915	662	1.577	294.476	222.528	517.004
500-999	388	549	937	270.436	395.308	665.744
1000-2499	218	452	670	318.627	677.548	996.175
2500-4999	39	160	199	131.322	569.774	701.096
5000-9999	14	40	54	94.354	268.466	362.820
10000 +	4	14	18	50.068	167.187	217.255
TOTAL	4.677	2.964	7.641	1.363.703	2.375.132	3.738.835

Source: based on SNIG data

ANNEX 1- BASALTO

NUMBER OF LIVESTOCK[a/] SMALLHOLDERS[b/] AND TOTAL LAND PER FARM SIZE AND SOIL UNIT

Queguay Chico			Masoller			Curtina			Cuchilla Haedo		
Farm Size (ha)	**Nr Farmers**	**Total Land (ha)**	**Farm Size (ha)**	**Nr Farmers**	**Total Land (ha)**	**Farm Size (ha)**	**Nr Farmers**	**Total Land (ha)**	**Farm Size (ha)**	**Nr Farmers**	**Total Land (ha)**
0-49	88	1.868	0-49	0	0	0-49	68	1.430	0-49	201	4.065
50-99	32	2.233	50-99	2	120	50-99	44	3.229	50-99	86	6.187
100-199	48	7.114	100-199	7	1.071	100-199	62	9.112	100-199	137	20.237
200-299	30	7.194	200-299	7	1.668	200-299	52	12.514	200-299	102	24.281
300-399	23	8.261	300-399	8	2.776	300-399	53	18.850	300-399	81	28.157
400-499	24	11.010	400-499	4	1.819	400-499	43	19.027	400-499	66	29.552
500-599	15	8.135	500-599	7	3.938	500-599	37	20.440	500-599	37	20.142
600-699	17	10.887	600-699	9	5.849	600-699	31	20.170	600-699	38	24.632
700-799	22	16.477	700-799	5	3.834	700-799	23	17.283	700-799	25	18.982
800-899	19	16.270	800-899	3	2.618	800-899	16	13.585	800-899	25	21.303
900-999	13	12.462	900-999	2	1.858	900-999	23	21.859	900-999	13	12.268
TOTAL	**331**	**101.911**	**TOTAL**	**54**	**25.551**	**TOTAL**	**452**	**157.499**	**TOTAL**	**811**	**209.806**

Source: based on SNIG data

a/ Cattle and sheep rearing and complete closed cycle

b/ Up to 1.000 ha total land as a proxy to up to 500 ha IC 100

ANNEX 1 - EAST HILLS

NUMBER OF LIVESTOCK[a/] SMALLHOLDERS[b/] AND TOTAL LAND PER FARM SIZE AND SOIL UNIT

Santa Clara			J.P.Varela		
Farm Size (ha)	**Nr Farmers**	**Total Land (ha)**	**Farm Size (ha)**	**Nr Farmers**	**Total Land (ha)**
0-49	403	9.854	0-49	551	11.888
50-99	286	20.535	50-99	331	23.614
100-199	346	49.596	100-199	309	44.696
200-299	178	43.612	200-299	157	38.120
300-399	114	39.039	300-399	102	35.152
400-499	94	41.925	400-499	82	36.537
500-599	62	33.669	500-599	28	15.155
600-699	47	30.539	600-699	32	20.805
700-799	32	23.699	700-799	30	22.302
800-899	24	20.294	800-899	25	21.045
900-999	13	12.170	900-999	14	13.016
TOTAL	**1.599**	**324.932**	**TOTAL**	**1.661**	**282.330**

Source: based on SNIG data
a/ Cattle and sheep rearing and complete closed cycle
b/ Up to 1.000 ha total land as a proxy to up to 500 ha IC 100

ANNEX 1 - BASALTO AND EAST HILLS

NUMBER OF LIVESTOCK[a/] SMALLHOLDERS[b/] AND TOTAL LAND PER FARM SIZE AND REGION

Source: based on SNIG data

	Number of farmers			Total Land (ha)		
Farm Size (ha)	East	Basalto	TOTAL	East	Basalto	TOTALl
0-49	954	357	1.311	21.742	7.363	29.105
50-99	617	164	781	44.149	11.769	55.918
100-199	655	254	909	94.292	37.534	131.826
200-299	335	191	526	81.732	45.657	127.389
300-399	216	165	381	74.191	58.044	132.235
400-499	176	137	313	78.462	61.408	139.870
500-599	90	96	186	48.824	52.655	101.479
600-699	79	95	174	51.344	61.538	112.882
700-799	62	75	137	46.001	56.576	102.577
800-899	49	63	112	41.339	53.776	95.115
900-999	27	51	78	25.186	48.447	73.633
TOTAL	3.260	1.648	4.908	607.262	494.767	1.102.029

a/ Cattle and sheep rearing and complete closed cycle
b/ Up to 1.000 ha total land as a proxy to up to 500 ha IC 100