



## ADAPTATION FUND

### REGIONAL PROJECT/PROGRAMME PROPOSAL

#### PART I: PROJECT/PROGRAMME INFORMATION

#### **Climate change adaptation in vulnerable coastal cities and ecosystems of the Uruguay River.**

Countries: Argentina Republic and Oriental Republic of Uruguay  
Thematic Focal Area1: Disaster risk reduction and early warning systems  
Type of Implementing Entity: Regional Implementing Entity (RIE)  
Implementing Entity: CAF – Corporación Andina de Fomento (Latin American Development Bank)  
Executing Entities: Ministry of Environment and Sustainable Development of Argentina and Ministry of Housing, Land Planning and Environment of Uruguay.

Amount of Financing Requested: 13.999.996 USD (in U.S Dollars Equivalent)

## Project / Programme Background and Context:

### 1.1. Problem to be addressed – regional perspective

1. The Project's implementation is focused on the lower Uruguay river's littoral area, specifically in the vulnerable coastal cities and ecosystems in both Argentinean and Uruguayan territories. The lower Uruguay river's littoral plays a main role being a structuring element for territorial balance since most cities and port-cities are located in it, with border bridges between the two countries (Fray Bentos – Gualeguaychú; Paysandú – Colón; and Salto – Concordia). The basin of the Uruguay river occupies part of Argentina, Uruguay and Brazil, with a total area of approximately 339.000 Km<sup>2</sup> and an average flow rate of 4.500 m<sup>3</sup> s<sup>-1</sup>. It's origin is located in Serra do Mar (Brazil), and runs for 1.800 Km until it reaches Río de la Plata. A 32% of its course flows through Brazilian territory, 38% forms the Brazil-Argentina boundary and a 30% forms the Argentina-Uruguay boundary.
2. The Project's area topography is characterized by a homogeneous landform without high elevations, creating meandric waterways, making it highly vulnerable to floods as one of its main hydro-climatic threats, which has been exacerbated by the effects of climate change (CC). (See additional maps on [Annex 3](#)).

<sup>1</sup> Thematic areas are: Food security; Disaster risk reduction and early warning systems; Transboundary water management; Innovation in adaptation finance.

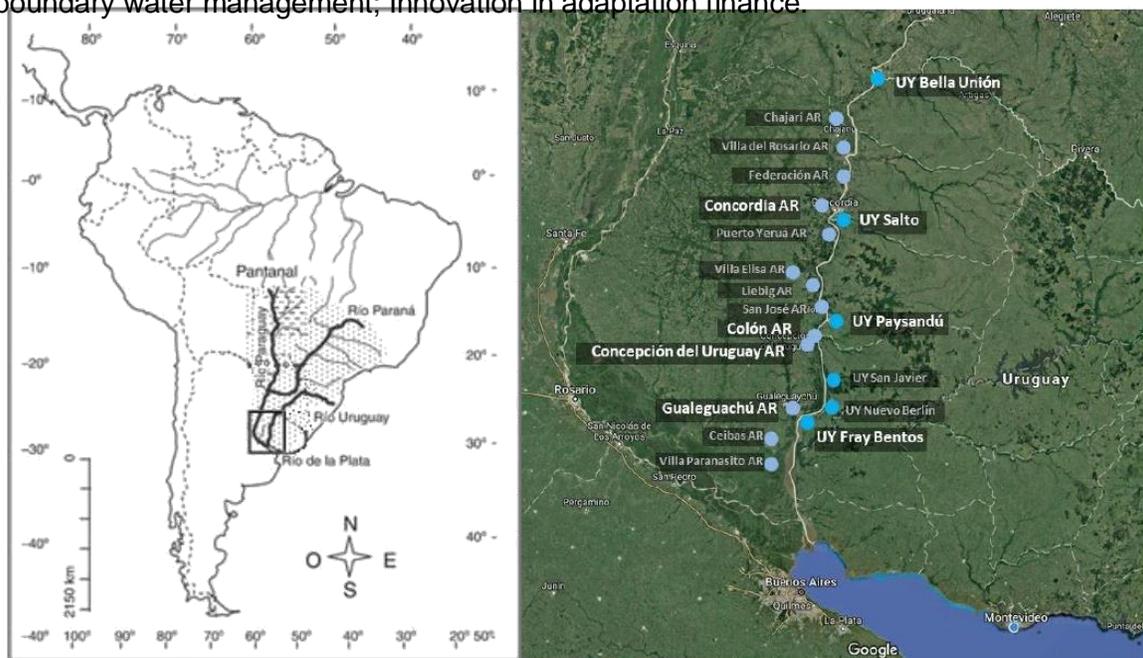


Figure 1. La Plata Basin and lower Uruguay river sub basin (Modified from Arzamendia 2015). Detail of vulnerable cities on both margins of the Uruguay river (Adapted from LANDSAT image-Copernicus 2017; –SIU NOAA, US Navy NGA-GEBCO).

3. On its middle course, the binational Hydroelectric Power Plant “Salto Grande” is located approximately 15 km North from Salto (Uruguay) and Concordia (Argentina) cities. This artificial damn is crucial for retaining water for power generation and also serves as regulating it’s flow in order to reduce the effects of high peak floods. The riverside constitutes a territorial structuring backbone in both margins which is valued from its socio economic, cultural, recreational and landscape point of view.
4. The Uruguay river and its littoral represents a ecological corridor that flows and connects both countries and it is also a natural entry for Argentina and Brazil’s tropical species (Misiones’ rainforest and Mata Atlántica respectively) to more temperate zones in the lower Uruguay’s basin. These characteristics (biodiversity, riparian forests and wetlands) make it of relevance for national and regional conservation. In the Argentinean side, the National Parks Administration (APN) has two Natural Protected Areas (NPA): El Palmar and Predelta National Parks with over 10.000 hectares of biodiversity conservation. On the other side, Uruguay has the Esteros de Farrapos Islas del Uruguay National Park and Algarrobales of the Uruguay río NPA with a total of 18.000 hectares. Both El Palmar and Esteros de Farrapos e Islas del Uruguay are part of RAMSAR convention for being wetlands of global relevance.
5. Due to the pressure on riparian forests in both Uruguay river’s margins, erosive processes are detected in different coastal areas as well as significant floods during extreme precipitations in the lower and upper river. In this context, the need of implementing restoration and adaptation measures based on ecosystems becomes fundamental in order to ensure buffering areas for floods regulation, natural and cultural resources provision and ecosystemic services.
6. The Region’s climate is temperate and wet while the lower Uruguay basin is located in areas with 2000 mm annual precipitations, with monthly average variations between 70 mm to 132 mm in Winter and Spring, provoking overflows with thirty to sixty days delays. Upstream of the Project’s area, the river presents numerous rapids, waterfalls and cliffs. South America’s tropical and subtropical areas are characterized by the South American Monsoon, a seasonal atmospheric circulating system in South America and adjacent oceans, that is conditioned by seasonal solar radiation that has a marked influence in the La Plata basin hydro-climatic regime, being that the well-defined annual rainfall cycle is one of its main characteristics, with reports of higher values during Summer and lower values during Winter.

*Table 1. Results for regional climate model ETA (10 Km) for future scenarios (compared to period 1961-1990). Results present a raise in temperature and precipitations for lower Uruguay river basin. Source: CIC*

Macro Basin	Precipitations			Temperature		
	Periods					
	2011-2040	2041-2070	2071-2100	2011-2040	2041-2070	2071-2100
Upper Paraguay	Decreases all year	Decreases DJF	Decreases DJF	Increases all year >2°C	Increases all	Increases all year >3°C

				DJF>3,5°C	year>3°C	DJF>4°C
<b>Lower Paraguay</b>	Decreases SOM-DEF	increases MAM	Increases MAM-SON	Increases all year>2°C	Increases all year>2,5 °C	Increases all year>2,5 °C
<b>Upper Paraná</b>	Decreases all year	Decreases DJF	Increases MAM-JJA- SON	Increases all year>2°C	Increases all year>2°C	Increases all year>2,5 °C
<b>Lower Paraná</b>	Increases MAM-DJF	Increases MAM-DJF	Increases MAM-DJF	Increases all year>2°C	Increases all year>2°C	Increases all year>2,5 °C
<b>Upper Uruguay</b>	Increases MAM-SON	Increases MAM-JJA- SON	Increases all year	Increases all year>2°C	Increases all year>2,5 °C	Increases all year>2,5 °C
<b>Lower Uruguay</b>	<b>increases</b> <b>DJF</b>	<b>Increases</b> <b>JJA-DJF</b>	<b>Increases</b> <b>MAM-DJF</b>	<b>Increases all</b> <b>year&gt;1°C</b>	<b>Increases</b> <b>all</b> <b>year&gt;2°C</b>	<b>Increases</b> <b>all year&gt;2,5</b> <b>°C</b>
<b>La Plata river</b>	Increases DJF	increases DJF	Increases MAM-DJF	Increases all year>1°C	Increases all year>2°C	Increases all year>2,5°C

7. Since the 70s, there has been an increase of mean annual precipitations in the project's area, which, on one hand expanded the agricultural frontier West of the perispheric traditional wet area, and on the other hand, gave place to permanent or transitory floods of a significant amount of productive fields as well as populated urban areas. There has also been a considerable increase of the rivers' flow rate, and even if this led to benefits for the hydroelectric sector, it also generated a greater frequency of floods and important socio economic disruptions. There has been also a considerable increase in the extreme precipitations rate in the region that was exacerbated during the 90s and has caused significant damages from floods, destructive winds and hail associated to these events. Additionally, the basin's hydrological system has been modified due to the reduction of infiltrating and water storage capacity in the soil system, a reduction of the volume of water stored in the underground layers due to erosion and compression due to urbanization, inadequate farming practices, afforestation with exotic species and deforestation of the natural vegetation causing an increase of floods during maximum precipitations and an increase of droughts during scarce precipitations. The integration of these factors leads to recurrent disasters caused by floods in the last decades, with an average rate of one or two per year.

8. The projected scenarios for climate change (CC) for this region are available in Argentina's Third National Communication on Climate Change (TCNCC Argentina, 2015<sup>2</sup>) and in Argentina's Climate Change Risk Maps National System (SIMARCC – <http://simarcc.ambiente.gob.ar>). Projections foresee a tendency to greater extreme precipitations, which could generate an increase in the overflows and floods rate and, by this, non planned migrations and resettlements, impacts on basic services and ecosystemic services, internal connectivity, access to health and education services, an increase in health risks caused by vectors and contamination, impacts on primary economic activities in peri-urban areas and touristic activity among others. Probable changes projected for period 2020-2040 by the Argentinean Sea and Atmosphere Investigation Centre (CIMA) with a high resolution climatic model and with results from various global climatic models, estimate that the high rate of extreme precipitations and floods in the current affected areas will continue with the corresponding negative impacts (physical, economic, social and environmental). In the TCNCC Argentina 2015, the increase of mean annual precipitations for the whole country (and especially in the Northeast and the perispheric area of the traditional wet region) as well as the increase of extreme precipitations in most of the East and Centre of the country are identified as priorities for the design and implementation of adaptation measures.
9. According to the studies developed for the Fourth National Climate Change Communication of Uruguay (CCNCC, Uruguay) based on most suitable global climatic models (CMIP5; IPCC 2013) and forced by RCP socio economic scenarios and the generation of climatic models AR5 (IPCC 2013), it is observed for Uruguayan territory for historic periods 1979-2005 and 2001-2014 that:
- a. the evolution of the mean annual surface temperature has a similar behaviour until 2030 (+0.5°C) for both scenarios (RECP 4.5; RCP8.5), while for 2050 raises of +1.0°C have been estimated under RCP4.5 scenario and of +1.5°C under RPC8.5 scenario.
  - b. Regarding the evolution of mean annual precipitation in the country the study indicates that there will be light increases under RCP4.5 scenario with raises of +0.10 to 0.14 mm day<sup>-1</sup> for 2030 and of +0.15 to +0.20 mm day<sup>-1</sup> under RCP8.5 scenario for 2050.

<sup>2</sup> The Country Report for Argentina about the TCN CC to the UNFCCC (2015; 26). <http://unfccc.int/resource/docs/natc/argnc3s.pdf>.

10. "El Niño – South Oscillation" (ENOS), is a cyclic meteorological phenomena which is characterized by an increase in the sea temperature in the Equatorial Pacific and an inversion of the atmospheric circulation over the ocean. When these raises and variations exceed certain thresholds, El Niño activates its cycle, which can last over one year and expand its effects over a significant geographical spectrum, altering regional climatic regimes and causing regional floods, droughts and great rural fires. An ENOS event strength is characterized by two indexes: South Oscillation Index (SOI), which actual value is of -20 (as lower, as stronger); and the El Niño Oceanic Index (NOI), which value for December 2015-February 2016 quarter is of 2.2. In order to compare, in the last ENOS events, the NOI values for the same quarter of 1982/3 and 1997/8 were of 2.1 and 1.6 for 1991/2.

11. Projections indicate that there will be a decrease in the amount of days with frost, a significant amount of warm nights, an increase in the length of hot waves and an increase in the precipitation's intensity. The extreme events (rains, intense winds, storms, hail, etc.) will continue to become more frequent. According to global predictions, it is also expected for these events to become more frequent and intense with time.
12. Beyond Argentina and Uruguay's climate change projections developed in their National Communications and the climate change projections developed for the La Plata Basin, all of these already included in the Concept Note, other relevant studies confirm that future climate change projections increase flood risks in the Uruguay river due to larger mean and extreme flows because of higher rainfall means and extreme events: ECLAC with support from UKAID, AECID, EU, German and Danish cooperation, and IADB (Barros, Vicente "Hidrological scenarios of mean flows in the Uruguay river and the Paraná river", ECLAC 2013.) developed river flow climate change scenarios for the Uruguay river using PRECIS climate projections for temperature and rain. The flow scenarios indicated flow increases from 33% at the B2 emission scenario in 2016-2026 year period to 57% increase in the A2 emission scenario for the 2091-2100 year period in relation to the 1990-1999 year period. Another research performed by Inés A. Camilloni, Ramiro I. Saurral & Natalia B. Montroull in 2013 on "Hydrological projections of fluvial floods in the Uruguay and Paraná basins under different climate change scenarios" published in the International Journal of River Basin Management (11:4, 389-399) included the projections on the decadal frequency of daily events with water level above the evacuation threshold at Paso de los Libres for the B2 and A2 emission scenarios according to the VIC model forced with the unbiased PRECIS climate model outputs. The VIC model included the following Regional Climate Models: 1. RCM PRECIS INPE/CPTEC (Brazil), boundary: HadAM3P (B2, A2); 2. RCM PROMES Universidad de Castilla-La Mancha (Spain), boundary: HadCM3 (A1B); 3. RCM RCA Swedish Meteorological and Hydrological Institute (Sweden), boundary: ECHAM5 (A1B) 4. RCM RegCM3 Universidade de São Paulo (Brazil), boundary: HadAM3 (A1B); 5. RCM LMDZ Institut Pierre-Simon Laplace (France), boundary: LMDZ global (A1B). These hydrologic scenarios of the Uruguay River show an increase in the frequency of flooding events that by 2091–2100 almost double those of the reference period (1990–1999). Likewise, for some decades, floods are more frequent under the low emission scenario (B2) (2026–2035, 2046– 2055 and 2091–2100) than for the highest one (A2).

## **1.2. Problems to be addressed – local perspective**

13. In both countries, 90% of the population lives in populated areas, and the main cities have a littoral location. Usually these lowlands are inhabited by highly vulnerable populations, with low income, poor housing conditions and scarce access to basic services. Floods negative effects have been, in most cases, exacerbated in addition the complex social conditions by the inadequacy of infrastructure and the built environment to new climatic conditions.
14. Floods originated by river overflows are one of the most pressing problems in littoral cities. They are related to the Uruguay river's own hydrodynamic as well as to socio territorial aspects that relate to the existing vulnerability and exposure levels, enhancing the events' severity.

15. Since severe storms and floods became more frequent, with greater effects on people, infrastructure damages and economic losses; it is utmost important to organize and orientate the adaptation process locally and regionally through policies and plans that consider CC perspectives and communities' and ecosystems' vulnerability. Floods cause great disturbances in regional economies and in the socio cultural development of the affected cities. In this sense, it is relevant to strengthen disaster risk management focussing on prevention and early warning, the adaptation of housing and urban infrastructure with sustainable characteristics and resilient to the new climatic circumstances.
16. During the last decades, Latin America has undertaken a progressive urbanization process and an acceleration of migration which have determined a significant increase in urban and peri urban population living in marginal areas. Concurrently, greater mobility between countries and regions facilitated an increase in the sanitary events incidence among vulnerable populations, especially of climate change and variability associated diseases. Example of this are vector-transmitted diseases (dengue, chikungunya, zika and yellow fever) due to an increase in the distribution areas and favourable habitats for insect populations' development related to changes in the temperature, relative humidity and precipitations in the region.
17. Moreover Natural Protected Areas (NPA) and their biodiversity, face numerous climate change associated problems. Main impacts are caused by habitats loss (especially in riverine coastal areas), changes in specific climate conditions required by species, poor connectivity of natural areas due to productive development, exotic species invasion and the effects of extreme climatic events. Therefore, NPA's management under a CC scenario faces important challenges, such as institutional capacities development, habitats fragmentation reduction and big scale connectivity maximization, promotion and management of buffering zones among these areas and fostering stakeholders' equitable participation in their management.

### **1.3. Social, economic and environmental context**

18. In both countries, a high percentage of the population inhabit populated locations, especially those with littoral locations. Even if most of these cities were founded in lower risk high areas, further expansions have frequently occupied littoral areas and low lands. Most of these lands have been occupied by highly vulnerable communities. Damages from intense precipitations and floods by river's overflows have been exacerbated by inadequacy of infrastructure and the built environment to the new climatic conditions.
19. The Project's area is particularly sensitive to extreme events such as droughts, floods, hot and cold waves, strong winds, hail, strong rains and severe storms. ENOS raises the higher magnitude precipitations probability to those recorded historically for the same period in the region.
20. In Uruguay, ENOS can be particularly noticed on the country's North and Norwest. Especially during Spring and Autumn, ENOS increases the probability that rains become of higher magnitude regarding historic data for the same period. In Argentina, ENOS starts on September and ends on the following year's midterm, provoking extraordinary overflows of La Plata basin's rivers. This fact

leads to regional long term floods with significant social, economic impacts, especially in provinces like Formosa, Chaco, Santa Fe, Buenos Aires, Misiones, Corrientes y Entre Ríos, where more than 90% of the population lives and more than a 70% of the county's GDP is generated.

21. Climate related disasters have taken a big toll in both Argentina and Uruguay. During 1970-2015 Argentina was affected by 97 mayor disasters (EM-DAT, 2016), being 93% of them of hydro climatic origin (floods and landslides caused by strong rains), affecting 14 million people and causing US\$ 10 million losses. In Uruguay, hydro-meteorological events represent 73% of the National Emergency System's (SINAE) actions. Littoral floods are the most frequent affecting more than 65.000 people that had to be evacuated during the last 10 years.
22. The vulnerability of the population to Uruguay river's coastal cities have increased and their current socio economic conditions with visible impacts on housing and urban infrastructure are clear evidence. Between November 2009 and February 2010, the region was severely affected by El Niño phenomenon (ENOS), leading to considerable floods such as in November-December 2009 which impacted Uruguay river's basin and affected Uruguay's North and littoral areas, especially Artigas, Salto and Paysandú cities. During Summer 2014 (January-February), rainfall exceeded monthly averages on a 150-350%, activating an emergency situation regarding social and sanitary conditions as well as agriculture and roads which lead to the allocation of 1% of public expenditure to face the emergency in order to start up an agricultural emergency fund, road repairing and other economic measures for different affected sectors.

In Annex maps is presented estimated number of people, homes and houses affected by floods

23. On 2015, between 5 and 15 % of Artigas, Paysandú and Salto's population (approximately 23.000 people) had to be evacuated due to the river's overflow floods. This situation also required human and economic resources to attend the emergency and early recovery. On 2016, floods left thousands of displaced people in departments such as Paysandú, and during 2017 more than 4.292 people were displaced for the Uruguay river's littoral.
24. During 1960-2010, precipitations increased in almost all the Argentinean territory, with inter annual and inter decade variations. Greater raises were recorded for the country's East with a 200 mm increment in some areas. Between December 2015 and April 2016, 8.340 people were affected by rains and storms and 19.840 were affected by floods from river overflows.
25. Extreme precipitations have caused recurrent floods in the upper and lower Uruguay river. In addition, erosive processes in its margins due to the pressure held on riparian vegetation (deforestation, agriculture, and urbanization) increase the regional ecosystem's vulnerability.
26. During the last decade Uruguay developed a robust nationwide process to prepare flood risk maps in flood prone cities, this process is led by the National Water Directorate (DINAGUA) of the Ministry of Housing, Land Planning and Environment, these maps are prepared working in coordination with Departmental Governments. These flood risk maps follow a specific methodology that includes observed flood recurrence levels (for example using the 100 year period to define high risk threats) and also socio-economic data in relation to vulnerabilities, some maps also include quality of housing data. The flood risks maps are included into local land planning process to provide basis for land management strategies. The flood risk maps are based on hydrological threats information that includes: historical flow and rain series that are statistically

adjusted and that consider historical registries of extreme flood events. Current flood risk maps in Uruguay DO NOT consider climate change scenarios, since there are no specific climate change river flow and level scenarios performed at urban scale yet in Uruguay, however these flood risk maps do include methodological updating mechanisms that allow for adjustments to include new hydrological information and land use changes.

#### **1.4. Long term adaptation actions in the public policy framework**

27. Both national governments and the subnational government of the area consider necessary to present a regional Project to the Adaptation Fund (AF) that focuses on the lower Uruguay river and its influence area. Uruguay river played a significant role in both countries' development and the increase of precipitations have lead to social and land management problems that need to be supported by adaptation measures that increase the resilience of the vulnerable coastal urban areas and ecosystems from a regional perspective and in front of a rising vulnerability to CC effects scenarios.
28. Considering their riverside location, their population's characteristics and existing precedents, the following vulnerable cities and ecosystems are considered as priorities for this Project since they present high flood risks and require effective and sustainable solutions in order to increase their resilience and adaptation capacity to face CC:

##### *In Oriental Republic of Uruguay:*

- a) Bella Unión and Rincón de Franquía National Protected Area, Artigas Department (with a 18.406 population in 2011);
- b) Salto, Salto Department (with a 104.028 population in 2011);
- c) Paysandú, Paysandú Department (with a 76.429 population in 2011);
- d) San Javier and Nuevo Berlín (with a 26.283 population in 2011), and Esteros de Farrapos e Islas del Uruguay National Protected Area, Rio Negro Department.
- e) Fray Bentos, Rio Negro Department (with a 24.406 population in 2017).

##### *In Argentinean Republic:*

- f) Concordia (with a 152.282 population in 2010);
- g) Colón (with a 24.835 population in 2010),
- h) Concepción del Uruguay (with a 82.729 population in 2010),
- i) Gualeguaychú (with a 102.421 population in 2010);
- j) San José (with a 18.178 population in 2010),
- k) Federación (with a 17.547 population in 2010)
- l) Ibicuy (with a 4900 population in 2010)
- m) Villa Paranacito (with a 4210 population in 2010)
- n) El Palmar National Park, all in Entre Ríos Province.

29. National Protected Area of Rincón de Franquía in Uruguay, forms part of the National Protected Areas System (SNAP) since 2013. It is located in the Norwest border of Artigas department, in the Uruguay and Cuareim rivers confluence, North of Bella Union with a 12.200 population, being the second most populated city in Artigas Department, considering perispheric neighbourhoods and populated centres the population raises to 18.406 people.

30. Through an environmental assessment in Concordia city, the deterioration of services infrastructure (sewage, potable water, among others), as well as a critical relationship between urban and natural areas due to an inadequate waste management have been determined along with the careless management of streams, Uruguay river's riverside, coastal erosion processes and the challenges for evacuating water excess. In this framework coastal protection measures are proposed were the water intake and water treatment plant for the whole city are located (152.282 people in 2010). There is a permanent severe erosion process in this area which is exacerbated with every Uruguay river's overflow.

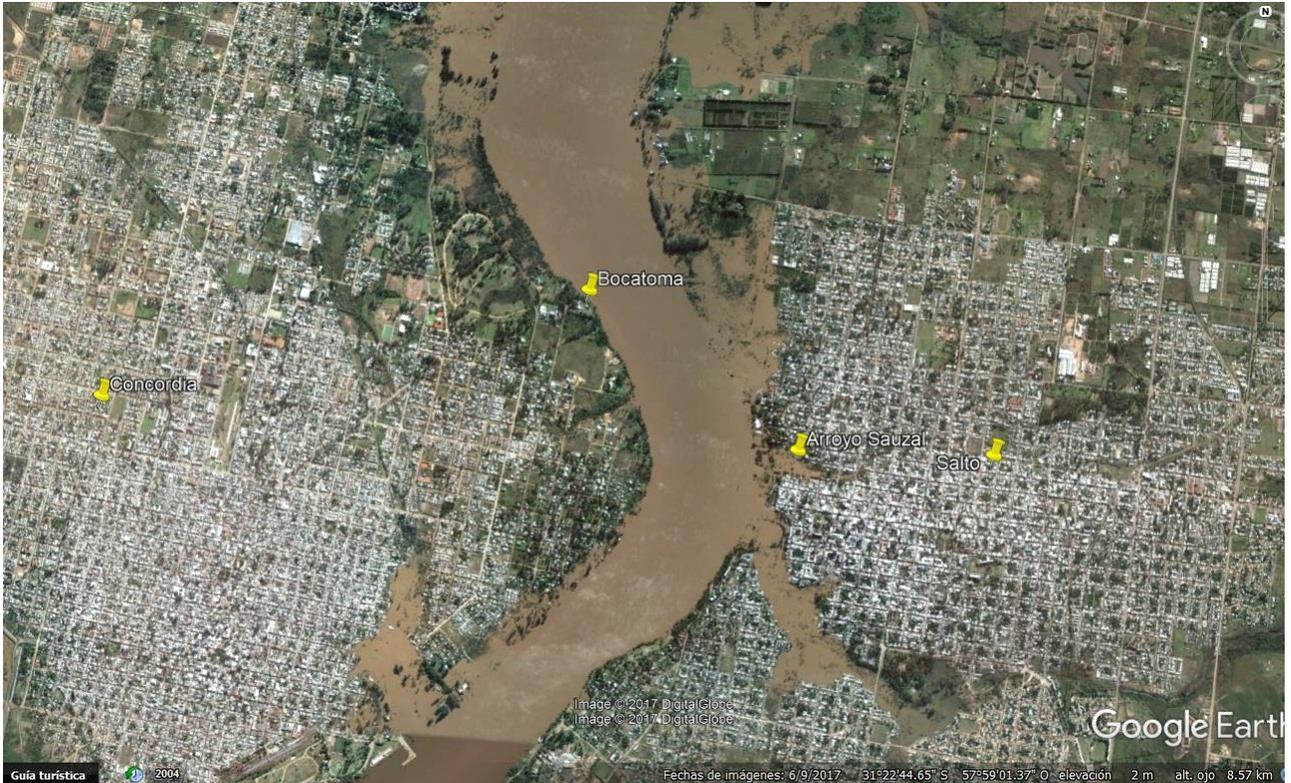


Photo 1: Concordia (Argentina) – Bocatoma's City Affected (Water Input for City Affected) – Salto (Uruguay) Urban pattern modified by floods in Arroyo Sauzal in Salto City, September 2017 (Google Earth)



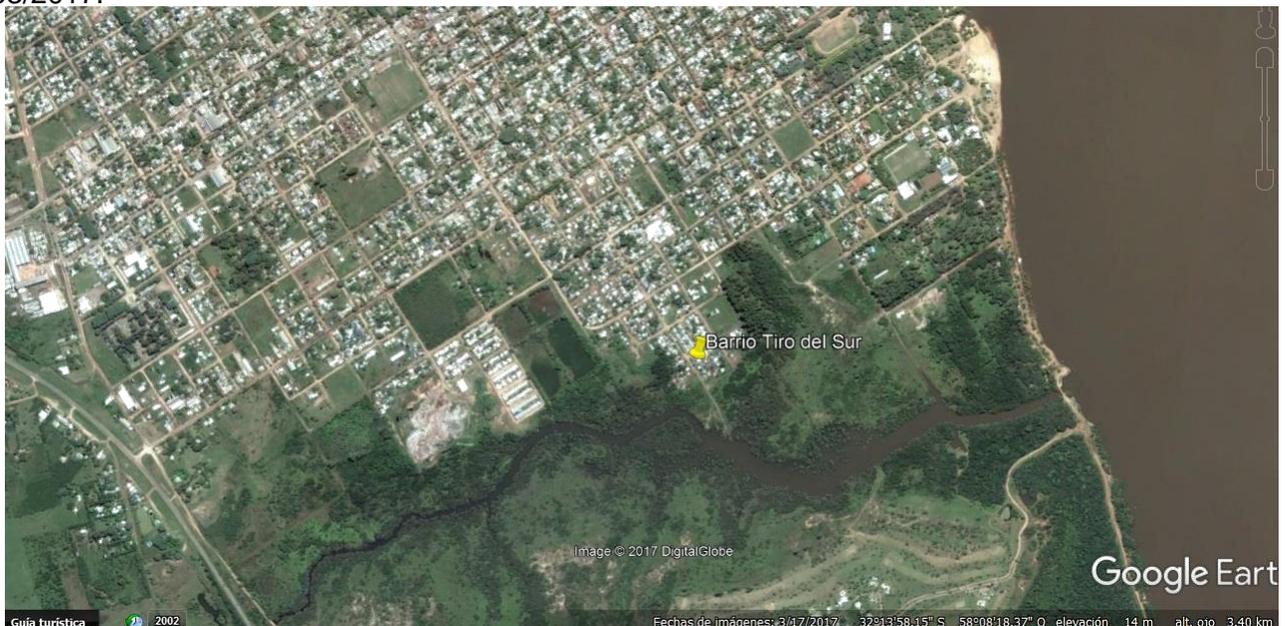
Photo 2: Concordia (Argentina) – Bocatoma's City Affected (Water Input for City Affected). Uruguay River Eroded. Visit December 2017. (Project Team Photography)

31. For Salto city, the implementation of the “Urban Water Plan for Salto” and the development of a city’s risk map are envisaged. Also, the improvement and resignification of the floodable river side by the implementation of “Sauzal Linear Park” is considered, creating a new recreational space for the community and preventing new informal occupation.



Photo 3: Salto (Uruguay) – Red line shows inundation level). Visit December 2017. (Project Team Photography)

32. In Paysandú, a portion of the population is occupying irregular settlements. The river level for Paysandú is 9.10 m, that means more than three meters from the security height of 5,5 m. The selected locations for adaptation measures implementation are Union Portuaria and Barrio Ledesma settlements, both characterized by a great social vulnerability population, with families that have settled in these areas a long time ago. The resignification of both neighbourhoods relocation locations is envisaged, were a housing plan is in course and relocation stages in relocations zones. Also, the development of a revolving fund to adapt mid risk housing in the Port area and the implementation of measures in the urban stream of “Curtiembre Wetlands” and the mouth of the Sacra stream.
33. Regarding Colón city, the proposed activities include resignifying vacant areas in order to transform them into recreational, tourism and environmental education spaces, among others establishing a buffer area for water storage associated to a protected area (Artaláz stream, San José neighbourhood and riverside paths) which is annexed to the Municipal Ecologic Reserve Parque Río de los Pájaros, launched by civil society and formalized by Municipal Ordinance 53/2017.



*Photo 4: City of Colón (Argentina) – Tiro sur Neighborhood impacted by flooding. (Google Earth)*

34. El Palmar National Park is located in Entre Ríos province’s Centre-East, with an 8.500 hectares surface, where an association of Yatay palms and grassland are predominant. The protected area belongs to the Espinal eco-region, with some typical communities and species from Pampean grasslands and Paraná forest. It was declared a RAMSAR site on 2011.
35. Esteros de Farrapos e Islas del río Uruguay National Protected Area constitutes a system of fluvial wetlands, islands and islets that flood temporary or permanently due to the Uruguay river’s overflows. It has an extension of 17.000 hectares and was declared as part of RAMSAR

convention in 2004. Nuevo Berlin settlement is in its South border and San Javier settlement is in its North border.

36. Exchange and joint learning activities have been developed between both the El Palmar National Park and the Esteros de Farrapos e Islas del río Uruguay National Protected Area's staff and relevant stakeholders. Progress on the development of a Binational Park as a biological ecosystem corridor from a regional and local scale is considered as well as rethinking measures that tend to native revegetation and exotic species management. Work is being coordinated on adaptive measures, including the development of different census, base line data and maps integrating both rural and urban areas in a comprehensive manner. Also the protection of Jesuit Ruins located in El Palmar National Park has been identified as a strategic measure in order to prevent further damage and collapse risks due to coastal erosion.
37. For San Javier and Nuevo Berlín settlements the design and implementation of a management and use strategy for the catchment basin to Esteros de Farrapos and these towns is proposed. Such strategy supposes an adaptation measure for intensive and extensive productive
38. activities in the area (afforestation, dry farming, milk parlours, bee keeping and fishing) and their associated lifestyles. This will also contribute to solving environmental conflicts such as the MEVIR housing project's biological oxidation lagoons in Nuevo Berlín and San Javier that are located in floodable areas. Recovery and protection measures (design and implementation) are proposed for the coast, including coastal ecosystems and existing archaeological sites in Esteros de Farrapos, Nuevo Berlin and San Javier.
39. The adaptation of both accesses to San Javier is critical since they remain unusable during Uruguay's river and tributaries' overflows, as well as the design and implementation of storm drainage and public spaces for low areas in the future growth sections of the city.
40. For Concepción del Uruguay the intervention of El Gato stream's mouth into El Molino stream was identified within the Uruguay river flood plain in order to prevent future settlements and to enhance storage and drainage functions of an extensive urban area. This will take place once the North Defence, now in construction, is finished and includes Cantera 25 de Mayo and San Isidro neighbourhoods among others. This area is located close to the town's civic centre (almost 9 blocks away) where neglected neighbourhoods have settled without access to basic public services such as drinking water and sewage and that are affected with overflows of over 5,5 meters (being the borders of El Gato stream the first to be evacuated during these events).



Photo 5: Colón (Argentina) – Red line shows inundation level). Visit December 2017. (Project Team Photography)

41. Fray Bentos, the capital city of Rio Negro department has also been selected for this Project. It is located on the Uruguay river's East margin, has an strategic port and is connected to Entre
42. Ríos province in Argentina by the Libertador General San Martín bi national bridge, it has a population of 24.406. The city has an internal stream, that is tributary to the Uruguay river and is often flooded in relation to macrodrenaje flows.
43. Gualeguaychú is the head city of Gualeguaychú Department and has a 7.086 m2 surface. It is located Southeast of Entre Ríos province and has an area of extensive beaches on the Gualeguaychú and Uruguay rivers, South of the city. It has an 83.116 population (2010) and it is included in the global activities of the Project. In this city, coastal neighbourhoods and those located near the port suffer the greater impacts, even though losses and damages exceed these areas due to the affectation on the touristic sector during overflow periods.
44. San José is located very near from Colón, and is exposed to the same phenomena, but suffers from lighter effects. Uruguay River Administrative Commission (CARU) has declared high contamination indexes for the river in this area, due to the lack of sewage treatment plants, and the use of agrochemicals from the farming sector.

45. In these coastal towns, and in some smaller ones such as Federación and Islas del Ibicuy, actions from different components and products will be developed, such as land management plans, risk management with a CC perspective, damage and loss assessment, early warning system (EWS), vulnerability analysis and reduction and social risk perception identification for resilience construction, as well as communication and education activities.
46. In the overall framework, the Project aims to promote the Nationally Determined Contributions (NDC) and the Adaptation Communications presented by Argentina and Uruguay under the Paris Agreement, especially those regarding actions and capacities strengthening to face CC impacts and increase resilience regionally and locally.
47. Uruguay's interest on mainstreaming CC into public policies has been made evident through different institutional measures and capacity building for public managing and decision making. Particularly on 1994 the Climate Change Unit was created, now Climate Change Division, within the Ministry of Housing, Land Planning and Environment (MVOTMA) that has operative and executive functions regarding CC. On 2000, through the General Environment Protection Act number 17.283, MVOTMA was designated as the competent national authority for the's domestic implementation of the United National Framework Convention on Climate Change (the Convention). Another significant milestone in the institutional development and strengthening was the creation of the National Climate Change and Variability Response System (SNRCC) by Executive Decree number 238 in 2009, for coordinating and planning the public and private actions necessary for CC risk prevention, mitigation and adaptation. It is the SNRCC who develops the National Climate Change Response Plan which was published on January 2010 and the Climate Change National Policy during 2016. SNRCC has two different working areas: the Coordination Group and the Advisory Commission. The Coordination Group is chaired by the MVOTMA, and vice-presidencies are in charge of the Ministry of Livestock, Agriculture and Fisheries and the Planning and Budget Office. The Coordination Group is also conformed by the Ministry of Industry, Energy and Mining, the Ministry of Foreign Affairs, the Ministry of Public Health, the Ministry of Tourism, the Ministry of National Defence, the Ministry of Economy and Finance, the Congress of Mayors and the National Emergency System. Also the Ministry of Social Development, the Ministry of Education and Culture, the Ministry of Transport and Public Works, the Uruguayan International Cooperation Agency and the Uruguayan Meteorology Institute have previously participated or participate as guests of the Coordination Group. The Advisory Commission is organized in working groups formed by technicians of the Coordination Group organisms as well academics and representatives of the private sector and the organized civil society. More recently, in 2015, Law 19.355 by its Article 33, created the Presidency's National Environment, Water and Climate Change Secretariat (SNAACC) and in 2016 by Executive Decree 172, such Secretary was regulated and the National Environmental System (SNA) was created to strengthen, articulate and coordinate Uruguay's public policies in order to protect the ecosystem's services and assets and increase climate change adaptation (CCA) among others. The SNA gathers the Environmental National Cabinet representatives (also created by Executive decree 172), the SNAACC, the water public agency – Obras Sanitarias del Estado –, the Uruguayan Meteorological Institute, the SNRCC and the National Emergency System. The Environment National Cabinet is formed by the President of the Republic and the Ministers of MVOTMA; of Livestock, Agriculture and Fisheries; Energy and Mining; National Defence; Public Health and Economy and Finance.

48. From the conservation perspective, by the Act number 17.234 from 2000 Uruguay created the National Protected Areas System (SNAP), with the objective to unify planning and management criteria for protected areas, under determined categories, with a unique regulation that states planning guidelines. Its specific objectives are the biological diversity and ecosystems protection (...), natural habitats protection, (...), especially those indispensable for the survival of endangered species, preserve singular samples of natural and cultural landscapes, among others. Besides, Uruguay has assumed multiple compromises regarding biodiversity conservation and ecosystem protection being a State Party to the Biological Diversity Convention (BDC) subscribed on 1992 and ratified by Act number 16.048 in 1993. On the other hand, the Land Management and Sustainable Development Act number 16.048 of 2008 established a general regulation framework for land management and sustainable development which includes the identification of risk zones in human settlements, the management instruments and procedures to design and adopt territorial plans and programs as well as projects with territorial incidence. This Act states that land planning instruments should orientate future urban development towards non floodable areas, identified by the pertinent state organisms in water management. Also, the Act number 18.610 on National Water Policy defines priorities regarding the comprehensive water management with a hydrographical basin approach and contemplates the definition of plans and programs for floodable zones. Finally, in 2009 the National Emergency System was created with permanent nature for the people, significant assets and environment's protection before the probability or occurrence of disasters, by means of the State's joint coordination with the appropriate use of public and private available resources, in order to foster national sustainable development.
49. On the other hand, Argentina Republic has ratified the Convention by Act number 24.295 on June 1994. Later, it ratified Kyoto Protocol by Act number 25.438 in 2001. Argentina's Ministry of Environment and Sustainable Development (MAyDS) was designated as enforcement authority of this Act by Presidential Decree 2213/2002. In the other hand, in 2016, by Decree 891 the National Cabinet of Climate Change (GNCC) was created within MAyDS in order to articulate CC policies and create awareness on its relevance within society. The Cabinet is chaired and coordinated by the Cabinet of Ministries which is integrated by 17 Ministries (Energy, Transport, Agro industry, Environment, among others). Provinces are represented through the Federal Council for the Environment (COFEMA), considering that natural resources belong to their jurisdiction. Each government organism, through its higher authority, has designated a head member (no lower than National Director) and an alternate, who represent their respective agendas (national and provincial) in the Committee meetings. On the other hand, Argentina recently in 2017, created the National System for Comprehensive Risk Management (SINAGIR) to strengthen and optimize the actions for risk reduction, crisis management and reconstruction. The system's consolidation will contribute to the Project's achievements sustainability in the country.
50. In this context, the Project will pursue the different related institutions and organizations participation, including those public, private, academic and from the civil society, through interinstitutional and inter sectorial spaces for both countries.

## 1.5. Project / Programme Objectives:

### **General Objective:**

51. The Project aims to build resilience in the vulnerable coastal cities and ecosystems of the Uruguay river, both in Argentinean and Uruguayan territories, by developing instruments, tools and experiences for adaptation planning and implementation as well as managing climate change and variability impacts and risks.

### **Specific Objectives:**

52. To reduce vulnerability conditions and contribute to build CC and variability resilience in vulnerable coastal communities and ecosystems from Uruguay river, including adaptation measures based on communities and ecosystems, while focusing on human rights, gender and generations.
53. To promote institutional strengthening by considering CC mid and long term scenarios in land management public policies, plans and programs for the vulnerable cities and ecosystems identified in each country.
54. To promote an integrated climate risk management in the identified cities and ecosystems for each country, fostering early warning systems (EWS) implementation.
55. To reduce the coastal cities' vulnerability by implementing sustainable infrastructure adapted to the adverse effects of CC.
56. To promote climate change adaptation (CCA) in both river's margins by exchanging urban, environmental, social and cultural best practices and knowledge management.

## 1.6. Project Components, Outcomes, Outputs And Budget

Project's components	Expected Outcomes	Expected Outputs	Output Budget	Component Budget
<b>1. Territorial adaptation and flood risk management policies, plans and instruments</b>	i) National and sub national governments have been strengthened by tools developed, experiences exchanged and CC inclusion in their planning and management instruments.	1. Land management plans, Protected areas management plans and housing and water programs, in revision or in progress, include the CC perspective.	USD 900.000	<b>USD 2.000.000</b>
		2. Methodological guides have been designed for impact, damages and losses assessment.	USD 100.000	
		3. Project's adaptation results have been included in the monitoring mechanisms of the Adaptation Communications and National Determined Contributions for Argentina and Uruguay.	USD 100.000	
		4. Strategies and best practices regarding adaptation, risk management, land planning, territorial police, housing infrastructure adaptation and vacant land recovery have been shared binationally.	USD 100.000	
	ii) Risk management sub national strategies have been strengthened and flood's early warning systems (EWS) have been developed in a coordinated manner.	5. A flood's EWS has been consolidated.	USD 200.000	
		6. Update and implementation of Regional Disaster Risk Management Plans have been supported including CC perspective.	USD 600.000	
<b>2. Priority measures to increase flood prone cities' resilience.</b>	Resilience in coastal cities has been increased by the implementation of structural and	7. Vulnerable vacant land from resettlements has been recovered and re signified to prevent informal re occupation.	USD 5.000.000	<b>USD 6.000.000</b>

Project's components	Expected Outcomes	Expected Outputs	Output Budget	Component Budget
	non structural adaptation measures.	8. Technical assistance and sustainable urban and public services infrastructure have been implemented in new resettlements on secure land.	USD 500.000	
		9. Solutions have been design and financial mechanisms have been implemented to promote CCA in mid risk housing and commercial buildings.	USD 500.000	
<b>3. Priority measures for adaptive conservation of vulnerable coastal ecosystems.</b>	iv) Adaptive conservation measures have been implemented in vulnerable ecosystems on both margins of the Uruguay river including their ecosystemic services identification and assessment.	10. Ecosystemic services and co benefits have been identified and assessed, including CCA and Uruguay river's ecosystems connectivity.	USD 500.000	<b>USD 3.062.000</b>
		11. New ecosystem-based adaptation measures have been designed and implemented.	USD 2.562.000	
<b>4. Priority measures for increasing social resilience.</b>	v) Communities and social organizations have incremented their resilience based on CCA and on hydro climatic disaster risk management framework	12. Social vulnerability monitoring and assessment tools have been developed with a human rights, gender and generations approach.	USD 200.000	<b>USD 1.400.000</b>
		13. Social risk perception assessments, have been implemented for resilience building.	USD 200.000	
		14. Assistance and labour reconversion strategies have been promoted for vulnerable population.	USD 400.000	
		15. Social networks have been strengthened by exchanging best practices on CCA, and local risk management strategies	USD 300.000	
		16. Communication, education and dissemination strategies have been implemented for vulnerability reduction.	USD 300.000	

5. Project/Programme Execution cost (A)	USD	500.959
6. Total Project/Programme Cost (B)	USD	12.462.000
7. Project/Programme Cycle Management Fee charged by the Implementing Entity (8% * (A+B))	USD	1.037.037
<b>Amount of Financing Requested</b>	<b>USD</b>	<b>13.999.996</b>

### 1.7. Projected Calendar:

Milestones	Expected Dates
Start of Project/Programme Implementation	March 2019
Mid-term Review (if planned)	September 2021
Project/Programme Closing	February 2024
Terminal Evaluation	December 2023

## II: PART PROJECT / PROGRAMME JUSTIFICATION

### A. Project Components.3

#### **COMPONENT 1: Territorial adaptation and flood risk management policies, plans and instruments**

The Project's implementation area is the lower Uruguay river's littoral, focusing on vulnerable coastal cities and ecosystems, especially regarding floods, both on Argentinean and Uruguayan sides. A high percentage of the population inhabits coastal cities where most vulnerable socio economic communities occupy high flood risk areas and face intensification of extreme events due to CC. National and sub national governments have achieved some progress in including CC perspective and climate scenarios. It is imperative to orientate adaptation processes in the Uruguay river basin by strengthening public policies and planning instruments considering CC, in cities, communities and ecosystems, as well as in the integrated risk management and early warning systems.

**Outcome i)** National and sub national governments have been strengthened by tools developed, experiences exchanged and CC inclusion in their planning and management instruments.

**Output 1.** Land management plans, protected areas management plans and housing and water programs, in revision or in progress, include the CC perspective.

Public policies instruments will be reviewed and updated for the inclusion of CC perspective and integrated risk management in the Uruguay river lower basin, involving local governments and key stakeholders. The unification of criteria integrating CCA and climatic risk management perspective in land planning will be achieved by means of training and consultancy. In parallel, training for public managers and members of local legislative areas on analyzing, modifying, observing, authorizing or rejecting planning instruments, is envisaged.

**Activity 1.1:** Analysis, review and update of the different public policy instruments on a territorial scale (protected areas, housing, water, health, risks, etc.) incorporating CC perspective and integrated disaster risk management for the implementation of adaptation measures in the basin by generating technical working groups.

**Activity 1.2.** Workshops for subnational and provincial governments focusing on analysis, review and update of different land management and coastal ecosystems administration instruments.

**Activity 1.3.** Training workshops for local legislative officials integrating CCA and risk management concepts into land management plans.

**Activity 1.4.** Workshops with community participation, focused on the development, revision and/or validation of the local and sectorial plans in order to incorporate strategies to build resilience considering climate scenarios

***Output 1 inputs and budget:*** 20 technical meetings and 20 participative workshops, 10 technical documents developed and approved, four climate change specialists consultants in climate change, land planning, risk and environment managing for sub national technical assistance. USD.900.000.

**Output 2.** Methodological guides have been designed for impact, damages and losses assessment.

This tool will enable economic, social and environmental impact identification and assessment regarding severe climate events in the project's locations. This will contribute to identifying priority adaptation actions for improving risk management in its different stages, and to increment socio ecosystem resilience.

**Activity 2.1** Precedents, experiences and documents analysis for designing a methodology for gathering and systemizing data and information regarding impacts, damages and losses as consequences of severe climate phenomena, for their report, evaluation and adaptation actions prioritization.

**Activity 2.2** Development of a methodological guide based on the analysis performed in Activity 2.1, for severe climate impacts report and evaluation and for prioritizing adaptation actions in both margins of the Uruguay river.

**Activity 2.3** Regional workshop for validating the methodological guide and indicators definition, required for its effective implementation in the project's communities.

**Activity 2.4** Subnational training workshops on methodological guide's implementation for local authorities and technicians.

**Output 2 inputs and budget:** One consultancy for methodological guide design and development, one regional workshop and four sub national training workshops. USD 100.000.-

**Output 3.** Project's adaptation results have been included in the monitoring mechanisms of the Adaptation Communications and National Determined Contributions (NDC) for Argentina and Uruguay.

**Activity 3.1** Adaptation indicators development, for the project's activities regarding NDC and Adaptation Communication.

**Activity 3.2** Indicators' monitoring and report of the project's activities in both countries.

**Output 3 inputs and budget:** One binational consultancy for monitoring and follow-up. USD 100.000 .-

**Output 4.** Strategies and best practices regarding adaptation, risk management, land planning, territorial police, housing infrastructure adaptation and vacant land recovery have been shared binationally.

Binational exchange will focus on CCA capacities, resilience building and vulnerability reduction for local governments and communities. This represents an opportunity to install a coordinated approach through training and exchange spaces for knowledge, best practice experiences and lessons learnt regarding management and planning.

These exchange spaces will be implemented at local level with binational representation, including government, civil society's organizations (CSO) and local key stakeholders. Regional and bi national exchange will be fostered reinforcing existing networks. Knowledge management and exchange are useful tools to promote participation and ownership as well as innovation an efficient use of resources.

**Activity 4.1** Bi national workshops for sharing best practices experiences, lessons learnt regarding planning instruments, health protocols, housing infrastructure, risk management, territorial police, among others.

**Activity 4.2** Consultancy for protocols design and bi national scope plans focused on Health and Climate Change.

**Output 4 inputs and budget:** Three bi national workshops, two technical consultancies. USD. 100.000.-

**Outcome ii)** Risk management sub national strategies have been strengthened and flood's early warning systems (EWS) have been developed in a coordinated manner.

Identification, assessment and georeferencing of climate change risks focused on floods, combined with the development of hydrological models and risk maps will enable planning tools and risk management improvement in both countries.

In this sense, Argentina and Uruguay have developed initial flood risk maps that involve some of the cities considered for this project. This represents a key input for the improvement and strengthening of the EWS implementation in both sides of the Uruguay river.

**Output 5.** A flood's EWS has been consolidated.

Information communication and exchange among intervening institutions from both countries is a key tool for an effective EWS that contributes to flood risk forecasting and management actions planning before and during extreme events, minimizing social, economic and environmental damages.

In present time there is a system for monitoring and forecasting flows and river levels in cities involved in the project; the system is operated by the Salto Grande Dam. The system is feed by hydrometeorologic stations located in the basin, precipitation forecasts and other meteorological variables. The technical team of the Dam present a daily report, that includes the forecast of the Dam operation and the forecast of river levels in nearby cities. This system provided reliable information with a few days in advance. If a flood is expected, the Dam technical team communicates directly to the National Emergency System of Uruguay and to each of the Departmental Emergency Coordination Centres of the cities in risk.

This system has allowed to evacuate in a timely manner the population at risk during the last years. Recently the Salto Grande Dam has included in its webpage the level forecast and in 2017 the Dam has developed a mobile phone application to communicate directly to the population the level forecast.

Link to the daily report:

<https://www.saltogrande.org/docs/hidrologia/Comunicado.pdf?1518302051>

Even though the forecast system could be improved in terms of data and computing, the most important improvement needed for the EWS as a whole is the preparation phase and the communication strategy to the local population. The project aims at improving the response information, by including **a geographic information model that can present at real time the current and potential affected area and that can estimate probable evacuated population numbers and key infrastructure under high risk.** (In the cities of Durazno in the Río Negro river and Artigas in the Cuareim river, there is a similar EWS approach currently under full scale development).

**Activity 5.1** Bi national workshop for existing information, resources and involved institutions identification for EWS implementation.

**Activity 5.2** Strengthening and further development of existing climate services on both countries and regional collaboration for flood EWS improvement.

***Output 5 inputs and budget:*** Two workshops and consultancy for EWS design and implementation through climate services strengthening. USD 200.000.-<sup>4</sup>

**Output 6.** Update and implementation of regional Disaster Risk Management Plans have been encouraged including climate change perspective.

Regional disaster risk management plans are crucial for minimizing the events social, environmental and economic impacts. The identification of the current situation and priorities for integrated risk management participative planning on territory with a prospective approach, will enable the implementation of more efficient and effective measures.

**Activity 6.1** One consultancy for reviewing and/or developing regional disaster risk management plans incorporating CCA in both countries.

**Activity 6.2** Local climate disaster risk management instruments development and implementation, focusing on urban floods, and implementation of CCA key actions.

**Activity 6.3** Training on plans´ implementation for managers and other local stakeholders, including organizations, communication media and professionals.

**Activity 6.4** Binational workshops for sub national organizations and governments involved on regional flood risk management plans implementation.

**Output 6 inputs and budget:** 20 workshops, four technical consultancies specialized on disaster risk management and two technical consultancies regarding disaster risk communication. USD 600.000.

## **COMPONENT 2. Priority measures to increase flood prone cities´ resilience.**

Selected cities in the Project add up to over 655.000 inhabitants, where some cities up to 15-20% of its population are in located in flood risk areas. These areas that are frequently affected by floods are flood plains usually occupied by highly socio economically vulnerable communities as well as mid risk consolidated urban area.

The challenge of increasing resilience regarding climate change impacts requires comprehensive adaptation measures (urban, environmental, social, economical and financial), that involve city and urban infrastructure design, encompassing resettlement processes, vacant land and green spaces re signification, as well as technical and financial assistance to strengthen public policies that are being implemented.

**Outcome iii).** Resilience in coastal cities has been increased by structural and non structural adaptation measures implementation.



*Photo 6: Urban pattern modified by floods in Salto City, September 2017 (Google Earth)*

**Output 7.** Vulnerable vacant land from resettlements has been recovered and re signified to prevent informal re occupation.

Floodable areas that have been informally occupied by vulnerable communities can be re signified as ecosystem conservation, recreation areas, among others, generating added value to the city's river sides and preventing new informal occupation. In this sense, participative spaces will be promoted for the activities' ownership by the community. Also, infrastructure operations will be based in the local governments design with CSO's participation and support.

Activities 7.1, 7.2 and 7.3 relates to the "resignification" of flood prone vacant urban land, whereas 7.1 and 7.2 are from previously occupied land, where houses have being (or are currently being) resettled into secure land and 7.3 which was not previously occupied. All these areas might be occupied again by poorer families (as other similar cases where seen in the past), since they are very close to the city centre and its services and in close relation to jobs opportunities or other living hoods around the river. In this regard, a key strategy to avoid new occupations in these vacant lands, which will increase again the level of flood risk of the city and the number of vulnerable families living in flood prone areas, is to establish new activities in the vacant land that are flood compatible, such as recreational parks or other related services. These activities will prevail the land to be occupied maintaining a lower flood risk in the city and also will improve the riverside landscape as well as the riverside ecosystem, as well as to bring the city new high quality public spaces and green areas for the citizens

**Activity 7.1** Union Portuaria, Ledesma and Paysandú's urban border resignification. Paysandú, Uruguay.

A linear park project will be designed to promote a degraded urban area's re-zoning, to contribute to its resignification from the social dimension and to contribute to an integration process with the consolidated city. Paysandú's subnational government is relocating 161 people whose houses are under the security height, not only based on the housing situation but also because of their fragile income sources. Through territorial inspectorate, a territorial control initiative in Paysandú since 2016, vacant land has been kept from reoccupation once their inhabitants have been relocated. In this context, a positive transformation of vacant land is proposed, through its enhancement as cohabitation space and promotion of citizen control. Through the intervention in these spaces and the improvement of the river's border to generate new collective spaces, previous occupants will continue to live in close areas but which are safer in terms of flood risks after the resettlement process.

**Activity 7.2.** Resignification and refurbishment of flood prone vacant land after resettlements in Salto, Uruguay.

Subnational government of Salto has implemented a resettlement process of those families regularly affected by floods in the Salto's Housing Demand Plan. This plan promotes social inclusion processes from an environment and housing comprehensive conception, strengthening collective and interinstitutional management process. Vulnerable families' resettlement is carried out by participative consulting processes. In this context, the need to avoid reoccupation of flood prone vacant land by new families is raised. For this purpose a resignification plan has been developed for these spaces. Currently, such plan is being implemented and assistance will be provided for the resignification of vacant land for public use with floods compatible activities with participation of private stakeholders such as sport clubs and other CSO activities, to give in "cession of use" regime the use of the land and generate recreational and leisure activities and prevent reoccupation.

**Activity 7.3.** Adaptation approach in the treatment of Sauzal stream's mouth. Salto, Uruguay.

Sauzal stream flows into the Uruguay river, the greater gathering point in the North Riverfront (Costanera Norte). The Sauzal stream's river side refurbishment is proposed for the implementation of a linear park for recreational use, enhancing its environmental and landscape attributes, protect the natural green spaces and solve hydraulic problems that exacerbate floods by the Uruguay river's overflows. Public spaces will be reconditioned in order to support future floods and its territorial planning will be designed including adaptation measures for floods and their impacts.

**Activity 7.4** Sustainable hydrologic management in Laureles Stream. Fray Bentos, Uruguay.

Since de 50's Laureles stream coasts (Uruguay river's affluent) have been occupied by low and mid-low income population. That situation created a degraded urban border that suffers macro drainage related floods. The Fray Bentos and Influence Area Local Plan has aimed to change this unplanned growth and spontaneous residential uses, to orientate a sustainable urban development with planned urbanizations, with complete infrastructure, services and public spaces where Laureles stream has an essential role in a city that contemplates climate change impacts with a prospective view. The mid basin urban area, due to its progressive expansion during the last years, is characterized by a growing sealing surface and an inadequate drainage network for the current situation. The great soil sealing from urbanizations leads to a lower infiltration of rainfall and thus, a greater volume of direct runoff. Additionally, extreme events related to CC, with significant water volumes in short periods of time, contribute to exacerbate this situation. In this way, the main course and surroundings are affected by floods during intense precipitations. River overflows that affect housing were registered (i.e. April 2016 floods) and families had to be evacuated.

On the other hand, in the short term, various housing projects will be implemented, which implies the sealing of an extensive surface and the construction of new storm drainage infrastructure. As a consequence, an important increase of the water flowing into the stream in a shorter period of time is to be expected. Such increase will make these effects more frequent and will affect greater spaces.

In order for the Laureles Stream to lower flood risk in surrounding housing areas, the stream must adequately carry extreme macrodrainage flows, from extreme short term rainfall. In this regard the health of the margins needs to be improved by restoration of native vegetation of the margins and floodplains, cleaning away informal waste disposals, improvement of drainage infrastructure that reaches the stream, at to actively prevent possible erosion sites. The general improvement of the natural conditions of the stream and its margin and floodplains will increase the capacity of the stream to absorb higher flows during extreme rain events

**Activity 7.5** Los Pinos coastal zone restoration and protection. Bella Unión- Artigas, Uruguay.

Los Pinos coastal zone is located 5 Km from Bella Unión and is the only recreational coastal zone in the Artigas department. A Uruguay riverside avenue was recently built that communicates the city with Los Pinos. Such construction increased the value of the area enabling a greater influx of people from Bella Unión, but also erosion was increased during recent floods that reached extraordinary heights. In the last 20 years, 60 m of riverbanks were lost. Artigas government has an hydraulic study where impacts from Uruguay river's currents are assessed, as a base for a further comprehensive study that includes hydraulic, environmental and social analysis and CC scenarios that leads to an executive project of midterm implementation.

The proposed action for the Los Pinos coastal zone is the restoration of native vegetation in the Uruguay river margin where higher risks of erosion has being identified. Also the project will assist the inclusion of a climate change projection into the current hydraulic study to improve the relevance of its conclusions in relation to local adaptation strategies!

#### **Activity 7.6** Artalaz stream protection and re signification. Colón, Argentina.

Wetland's recovery as a recreative, sports and touristic space that also serves as water excess storage from rains and overflows. This area is characterized by low floodable zones within the stream's flood plain where residential uses have spontaneously expanded. Currently they constitute consolidated neighbourhoods of medium density, basic and precarious infrastructure, lack of quality public spaces and muddy streets that make access difficult during rainy seasons. The relocation of those houses under 10,5m in reference to Colón port is envisages for year 2018. The whole area has a 20 hectare surface over the river's south margin. Its limits are Piamonte Av and "Río de los Pájaros" NPA on the East where the stream flows into the Uruguay river.

#### **Activity 7.7** Vacant land between North Defence and Cantera 25 de Mayo neighbourhood recovery and re signification. Concepción del Uruguay, Argentina.

North Defence is currently under construction. It is located in the city's North where El Gato and El Molino streams flow into de Uruguay river, within its flood plain. It is regularly affected by the Uruguay river's overflows and by intense rainfall in the basin. The reason for this is that the stream is the natural drainage of an extensive urban area, including Cantera 25 de Mayo and San Isidro neighbourhoods.

The Defence building, which mitigates flood risk due to the river's overflow, will alleviate the storm water through a bomb. This should be completed with the area's recovery in order to generate an urban suture, emphasizing on public use with the incorporation of recreational activities and sports for the whole community (close neighbourhoods and the rest of the city). As an adaptation measure, a 25 hectares area will be conserved as an water excess storage as well as re signifying an extensive area as an urban green heart close to the city's centre and avoiding further occupation.

**Output 7 budget:** USD 5.000.000.-

**Output 8.** Technical assistance and sustainable urban and public services infrastructure has been implemented in new resettlements on secure land

Adapted and resilient urban infrastructures are essential to consolidate relocation processes and to define a long term effective solution. Potable water and sewage services, urban waste management, among others, that consider climate change and future scenarios will significantly reduce the

relocated communities' vulnerability and improve their life quality. Previous experiences in the region will be considered and pilot projects will be implemented.

The activities under Output 8 implies the provision of urban and public services adapted and resilient infrastructure on neighborhoods where vulnerable people have been previously resettled or are currently being resettled (by processes led and funded by the governments) from flood prone areas. This will guarantee their provision during extreme events as they will be designed considering CC actual and future scenarios, considerably reducing the communities' vulnerability and building resilience as well as enhancing their life quality.

**Activity 8.1** Adapted and sustainable urban infrastructure design and implementation on secure land for resettlements. Salto and Paysandú, Uruguay.

The availability of secure land with basic urban services is a bottleneck for resettlement plans. The Project will contribute to generate secure urban land for resettlements, as well as for the design and implementation of infrastructure which is compatible with climate conditions.

Currently flood risk resettlement housing plans are being supported both by the Ministry of Housing, Land Planning and Environment and the Departmental Government. The usual approach to resettlements is that the national government finance the new houses, mainly by grants to their new owners or by soft loans, and the Departmental Government provides the urban land for the new houses with complete public services including electricity, drinking water and sanitation, among other services such as schools, public transport, etc. However in many cases there is not enough new secure urban land ready to receive families from resettlement programmes, mainly because of the lack of services, especially sanitation and drainage. This activity aims at providing new sustainable services to secure land in order to speed up resettlements process of flood risk vulnerable communities. These services such as sanitation and drainage will be developed under innovative green infrastructure design, that is expected to be more cost-effective and with greater resilience to extreme climate events.

**Activity 8.2** Protection against coastal erosion and repairs for the water treatment plant. Concordia, Argentina.

This intervention will enable to approach a problem originated in the last 25 years over the Uruguay river's coast, upstream and downstream of Concordia's water treatment plant. This plant supplies all the city's population (200.000 people) jointly with perispheric perforation in the more remote areas.

Protection against coastal erosion and repairs for the water treatment plant. Concordia, Argentina.

According to general projections regarding climate tendencies and the intensification of hydrological and meteorological extreme events, erosive processes will continue to exacerbate. Based on these scenarios, this activity proposes to protect the coastal zone where the water intake of Concordia's and surroundings treatment plant is located as an adaptation measure aiming to guarantee this basic service for the city. This area is affected by erosive processes on every river's overflow, and also, part of the pumping equipment remains under water, which obstructs its access for operation and repairs.

This activity envisages different solutions based on the different characteristics of each delimited area, including various reparations for the water intake building in order to guarantee its stability and operation, especially during overflows.

In summary, the following technical solutions are proposed<sup>1</sup>:

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<sup>1</sup> Repairs for the water intake have been projected by the Concordia's water entity and the coastal protection project has been based on an extensive work developed in the Facultad Regional Concordia of the National Technological University, with municipal technical staff's supervision. It is available in the following link: <http://ria.utn.edu.ar/handle/123456789/1052>

- a) The construction of lateral walls, since the actual masonry walls (North side) present cracks. New walls attached to the original ones will be built out of ferroconcrete with their corresponding reinforcements.
  - b) Implementation of an access for machinery to the water intake. Since the actual access is not paved and presents a significant gradient the access for machinery is difficult when maintenance is required. This new access will be approximately 45 meters long and 3 meters wide and will facilitate access to the water intake assuring provision of the service during overflows which are becoming more frequent.
  - c) Elevated access to the pumping system for maintenance and repairs during river overflows.
- Coastal protection for the adjacent area of the water intake.

**Activity 8.3** Lavardén and San Pantaleón neighbourhoods storm drainage remediation. Concordia, Argentina.

Remediation of the storm drainage in these cities area that is receiving important neighbourhoods of social interest. This area is characterized by the presence of pronounced depressions in the inner parts of blocks becoming inhabitable, wasting land in a residential area of town. The proposal consists in the implementation of a superficial system, in order to ensure the flow of storm water into the main ducts that compose the underground system.

**Product 8 budget:** USD500.000.-

**Output 9.** Solutions have been designed and financial mechanisms have been implemented to promote CCA in mid risk housing and commercial buildings.

Flood's social, psychological and economic effects have regularly impacted on these vulnerable communities for decades, making their recovery very difficult. These instruments will support these families with sustainable solutions in order to adapt their housing conditions in mid risk areas, which are not subject to relocation plans. The experiences and best practices exchange in a regional level will contribute to achieve effective solutions and the society's ownership.

Solutions have been designed and financial mechanisms implemented to promote CCA in mid risk housing and commercial establishments" will provide direct benefits to vulnerable communities since they will have the opportunity to improve and adapt their housing conditions that have been affected periodically by floods, receiving economic support as well as technical assistance. This will enhance their life quality and healthiness conditions. Regarding touristic and commercial establishments, these activities will not only improve and adapt the establishment's conditions regarding flood damages but will also guarantee income sources for the owners and employees, assuring the sustainability of the touristic sector

**Activity 9.1** Revolving fund for mid risk housing. Paysandú and Salto, Uruguay.

Revolving fund creation for housing and commercial constructions affected by less recurrent floods in mid risk areas. A micro credit scheme is envisaged with no interests and technical assistance from subnational governments for constructive adaptation actions regarding electrical and sanitary facilities, mezzanine, among others which are included in the local plans.

In Paysandú and Salto there is an estimation of around 4000 houses located in mid risk areas, most of these houses have good construction materials and families usually have higher income. Under government policies the families living in this mid risk areas are usually not entitled to resettlement policies, however a more cost-effective approach can be taken into account in relation to the adaptation of these houses to floods, such adaptation could include minor construction adjustments in key elements, these adjustments could cost approximately from 5000 to 15000 USD. Eventhough the actual budget for the activity has not being defined at the concept note stage, it is envisaged that the initial revolving fund could reach around 2% of mid risk houses as a pilot programme to test the policy approach. Also to note is that at concept note stage the main source of funding for the revolving fund is the initial grant by the AF, however other sources may be identified at a later stage once the programme is in place, and that initial results can be measured. One of the main non-financial costs is the provision of technical assistance from architects and other technicians, such as plumbing and electricity, in this regard the Departmental Governments have professionals and technicians in place to support such assistance. As a pilot experience financed jointly with Departmental Municipalities, the Fund is sufficient to evaluate and define if this adaptation measure can be effectively applied in the flood zone of cities that have a varied socio-economic composition and therefore require differentiated instruments.

**Activity 9.2** Design of a flood insurance for coastal commercial and touristic establishments.  
Entre Ríos, Argentina.

In most coastal towns of the Uruguay river involved in this Project, main income sources are related to tourism. Significant amount of commercial, gastronomic and hotel establishments, among others, are located in coastal or low areas, precisely for their proximity to the river and it recreational, social, cultural, environmental, view and touristic benefits.

In these areas, the overflows that extend during long vacational periods, cause devastating effects due to damages and losses of income sources related to the partial or total interruption of the economic activities. In this sense, it is utmost important to generate risk transference financial measures such as insurances, that tend to protect the entrepreneurship's income and local associated economies.

In the Project's framework, a feasibility assessment will be undertaken and a customized insurance will be designed according to the criteria and parameters that are defined in the Project's context.

**Output 9 inputs and budget:** Technical consultancies for the revolving fund and insurance design.  
Initial funding for revolving fund. USD 500.000.-

### **COMPONENT 3. Priority measures for adaptative conservation of vulnerable coastal ecosystems.**

Uruguay river's natural ecosystems have a significant value for their biological diversity and their role in benefits and ecosystemic services supply, especially those regarding river's dynamic regulation contributing to a dynamic balance (buffer zones, water purification, floods and temperature regulation, erosion prevention, among others). These ecosystems are affected by severe climatic events, jeopardizing the river's natural dynamic, biodiversity and environmental services supply. In paralel, these impacts are increased by the growing coast urbanization, river side settlements, incorporating new threats related to pollution processes and water quality loss.

Adaptation strategies based on ecosystems are suggested, which include mapping of ecosystemic services, restoration of significant ecosystems and river's natural dynamic through coastal recovery, environmental services protection and measures to reduce health related issues in towns.

**Outcome iv)** Adaptive conservation measures have been implemented in vulnerable ecosystems on both margins of the Uruguay river including their ecosystemic services identification and assessment.

Uruguay river's coast has been severely affected by anthropogenic activities (deforestation, infrastructure installation, soil compaction and urbanization) for decades, altering its natural dynamic and balance leading to erosive and degradation processes that have been deepened by the extreme events and their social, environmental and economic effects.

Adaptation pilot programmes will be designed for their implementation aiming to promote a useful adaptation methodology in areas with ecosystemic relevanceto enhance biodiversity conservation in the climatic threats context. These programs should contemplate environmental services mapping and assessment in a way that the link between ecosystems and human activities contribute to climate risk reduction in the community and economic spheres.

Numerous NPA (national, local, private) are located in the Project's implementation area with different progress in their management, conservation, institutional agreements, projects and initiatives.

There are exchange activities between El Palmar National Park (Argentina) and Esteros de Farrapos e Islas del Uruguay Protected Area (Uruguay) and the intention of a formal agreement between Argentina's National Parks Administration (APN) and MVOTMA – SNAP from Uruguay.



*Photo 8: El Palmar National Park, December 2017. (Project Team Photography)*

**Output 10.** Ecosystemic services and co benefits have been identified and assessed, including CCA and Uruguay river's ecosystems connectivity.

Identification and mapping of these characteristics will significantly contribute in territorial planning and management, risk reduction and management, resilience building and the improvement of sanitary and health conditions. Ecosystem based solutions are known for being sustainable and efficient.

Climate change and variability alter ecosystems and species distribution which require consideration in the NPA management plans and other biodiversity conservation measures.

Healthy coastal ecosystems support CCA, with favourable consequences for population, infrastructure and vulnerable activities in the river's margins. It is necessary to identify, assess and promote ecosystemic services supply in the NPA's management plans and other biodiversity conservation measures.

**Activity 10.1:** Ecosystemic services and benefits identification, their mapping and assessment regarding their contribution to CCA and connectivity in Argentina and Uruguay.

The envisaged activities include: information compilation, analysis and systematization; analysis for ecosystemic services and benefits' identification and assessment and their incorporation into an information system; baseline and terminal measurement.

The main geographic scope of ecosystem services is in relation to the Estero de Farrapos e Islas del Río Uruguay National Protected Area and El Palmar National Park, however depending on which ecosystemic service is being mapped the geographical scope may change accordingly to better reflect the geographical interrelation between conservation and restoration sites and the sites where the service is provided, also some mapping insights on ecosystem services will be included in relation to some of the urban areas addressed in the project.

In general terms the project takes into account those ecosystem services that relate to the protected areas in both margins of the Uruguay river, as well as those natural surroundings around the urban areas that will be addressed in the project. In particular ecosystem-based adaptation actions will be taken into account in the selected urban centres, riparian ecosystem linked to these urban sites, and selected protected areas in both margins of the Uruguay river, in particular El Palmar National Park and Estero de los Farrapos e Islas del Río Uruguay protected area.

The main ecosystem services provided by riverside ecosystem of the Uruguay river are: hydrological regulation, sedimentation dynamics processes, nutrient retain and release cycles, habitat for biodiversity, trophic chains, among others. In this regard, there is huge importance in the intervention to reverse erosive processes, to promote native revegetation and the control of the expansion of exotic species.

Ecosystemic services taken into account:

-Hydrological regulation: healthy riverside ecosystems reduce the impact of river floods, by flooding areas of low human activities, as well as they reduce the impact of drought by providing water and humidity to the surrounding drier ecosystems. This service is key in terms on climate change, where there could be exacerbated variability and more frequent extreme events of both floods and droughts.

-Habitat for biodiversity: ecosystems support key functions in the productive processes, including pollinizing species that play an important role in the surrounding crops. Moreover, in the context of climate change, including the increase of mean temperature and rainfall, as well as increase climate variability and the frequency and intensity of extreme events, it is expected that species distribution change as well. To work upon healthy ecosystem connectivity becomes crucial to allow for species to better adapt and to be more resilient to climate change.

-Reduction of coastal erosion and sedimentation process dynamics: increased climate variability becomes a basis for the increase of erosion capacity of the river. This higher coastal erosive process also includes a modification of the sedimentation process. If riversides can count on robust and healthy ecosystems, this ecosystems can reduce the erosive effects.

-Nutrient cycles and trophic chain: robust and healthy ecosystems are key to ensure adequate nutrient cycles and trophic chains that are basic for relevant productive processes in the project area, among them fish availability and fisheries.

-Recreational touristic spaces, in relation to enjoy and education of local population and visitants: Uruguay river ecosystems, especially those in the protected areas, have an special significance in order to support better living conditions for the local population, including children and women and the poor. Riparian ecosystems and their biodiversity have become one of the attractions for recreation, education and tourism at present time and more is expected in the future. In this context ecosystem conservation becomes a key strategy in order for ecosystems to become more resilient towards a more threatening future in terms of climate but also with higher use.

**Output 10 inputs and budget:** Technical consultancies. Equipment procurement for field and informatics surveys. Software and high resolution images procurement. Workshops and meetings. USD 500.000.-

**Output 11.** New CCA ecosystem-based measures have been implemented.

The identification and assessment of impacts such as erosion and drainage problems, and the provision of sustainable solutions to recover ecosystemic services and to facilitate ecosystem restoration in coastal zones reduce flood risks and its negative effects. Also, it constitutes valuable information for planning and management policies and the development of regulations.

**Activity 11.1** Necessary adapted infrastructure for increasing resilience within NPA, for activities such as tourism, livestock breeding and dairy farms, fisheries and apiculture in Argentina and Uruguay.

Within the Esteros de los Farrapos e Islas del Río Uruguay Protected Area several low impact production activities are held, most of these activities rely on infrastructure such as boardwalks for tourism, wiring for cattle breeding, or bee squares for apiculture. These activities and infrastructures could be at flood risk depending on their specific location and the type of materials or technical design criteria. The project aims at identify such vulnerable infrastructures and where possible will suggest and support its adaptation, whereas a relocation into higher zones, or to improve its materials or design standards in order to decrease the level of risk of such activities in relation to floods.

In terms of tourism: a redesign of the walking trails and support infrastructure in terms of climate change. This trails go through flood prone areas, in this regard the project will support the adaptation of trails, observation decks, walkways and shelters, as well as the modalities of their use in order to lower the risk of both the infrastructure and the visitants.

In terms of apiculture: apiculture is being developed in flood prone riverside areas and specific islands in the protected area, this activity requires adapted infrastructure when flood arises so as to quickly move hives and other supporting materials through water. The project will support in improving the infrastructure and other equipment, as well as to increase the knowledge and capacities of the beekeepers to cope with flood, including by developing protocols based on EWS.

In terms of livestock breeding: livestock smallholders are frequent in the Estero de los Farrapos area integrating production with ecosystem conservation. The project will aim at supporting the smallholders to improve their management skills based on EWS when flood events happens, as well as to provide them with adequate equipment for improved cattle management during these episodes.

**Activity 11.2** Design and implementation of a sustainable use and management strategy for Esteros de Farrapos area and its relationship with Nuevo Berlín and San Javier. Rio Negro, Uruguay.

The actions under this Acitiviyall speak to the relationship between Nuevo Berlin and San Javier cities with the Estero de los Farrapos and Islas del Río Uruguay Protected Area, where there is an intimate relationship between the ecosystem of the Protected Area with its adaptation related services to the urban environment.

The strategy will enable to solve environmental conflicts such as the MEVIR housing project's biological oxidation lagoons in Nuevo Berlín and San Javier that are located in flood prone areas. Design and implementation of recovery and protection measures (are proposed for the levee, paleo coast, including beach ecosystems and existing archaeological sites in Esteros de Farrapos, Nuevo Berlin and San Javier. Building an additional stretch of Nuevo Berlin's riverside boardwalk<sup>1</sup> and definition of public spaces on Santa Rosa beach<sup>2</sup>. Adaptation actions for houses located on San Javier's north east urban border<sup>3</sup>, adjacent to Esteros de Farrapos. regarding the last three actions of the activity:

1.Nuevo Berlin's riverside boardwalk requires an expansion at a high level in order to be usable upon higher river levels, an adequate boardwalk will also help the conservation of the riverside ecosystem, and a healthy riverside ecosystem will also provide for less erosion and the a better protection for the boardwalk itself.

2.Santa Rosa beach in Nuevo Berlin is very delicate in terms of its riverside conformation, including its surrounding vegetation, which prevents erosion. The definition of usable public spaces will help the conservation of the most delicate areas in order to prevent erosion during high level floods.

3.In the connecting area between north west San Javier with Estero de los Farrapos Protected Area there are few houses in a high frequency flood prone area, adaptation actions will be explored in relation to the ecosystem conservation or other adaptation actions in order to decrease the flood risk.

**Activity 11.3** Implementation of pilot adaptation measures based on ecosystems on Rincón de Franquías NPA, Uruguay.

Identification of the most flooded vulnerable zones and the design and implementation of pilot conservation and ecosystem based adaptation measures, such as revegetation with native species.

**Activity 11.4** Coastal protection for the conservation of the river side forest surrounding the water intake. Concordia, Argentina

As mentioned on Activity 8.2, the protection of the coastal area near the water intake of the treatment plant includes activities that aim to stop the erosive processes that affect the riverside forest located in the right margin of the Uruguay river. This area, besides hosting valuable native species, acts as a buffer zone against the variations of the river's height, and its protection is critical for increasing the water intakes' sustainability and the progressive loss of soil during overflows.

**Activity 11.5** Restoration of selected vulnerable coastal ecosystems, through the integration of exotic species control and through revegetation with native species. Argentina and Uruguay.

Restoration activities include joint binational field actions involving public, private and civil society stakeholders with a "learning by doing" approach, in each countries' cities.

Development, implementation and assessment of methodological guidelines for ecosystem restoration. Strengthening of human and institutional (public, private and social) capacities for ecosystem restoration including NPA staff, service agencies and interested neighbours. Development of strategy for post project action's sustainability, and its corresponding document.

**Activity 11.6** Project for Heritage site's protection review, implementation and assessment. El Palmar National Park, Argentina.

Development, implementation and assessment of Public use of a cultural heritage composed of jesuitic rests of the former guarani missions that are placed inside of Parque Nacional el palmar and

are particularly vulnerable to erosion caused by floods . these activities are protection of cultural heritage inside the park will be developed in Argentina, historical ruins Online can be accessed from the national park It is one kilometer away across The construcción on the bank of the Uruguay River , the se ruins, which belonged to an ancient lime facility, unveil the remains of limekilns, an old jetty and some old houses built by the river. experiences, lessons learnt and capacities exchange with Uruguay, key stakeholders and are envisaged as well as linkage actions with similar cultural heritage sites along the Uruguay river basin.

**Product 11 inputs and budget:** USD 2.562.000.-

#### **COMPONENT 4. Priority measures for increasing social resilience.**

Climate change adaptation measures promoted by the government should be oriented to resilience building with approach on human rights, gender and generations. This involves developing comprehensive adaptation measures based on communities, and considere in their design and implementation social, economic and cultural aspects for each community.

Also, is considered the promotion of communities´ vulnerability monitoring regarding the project´s activities´ implementation, as well as knowledge of the risk social perception, implementation of foresting measures for labour reconversion for the most vulnerable communities. Also, the project considered education and communication strategies that contribute to best practices experiences exchange and local empowerment based on local and regional social networks ´strengthening.

**Outcome v)** Communities and social organizations have incremented their resilience in the CCA and hydro climatic disaster risk management framework.

Binational effort to coordinate actions on both Uruguay river´s margins will be fostered by the project as well as best practices exchange, existing mechanisms and tools identification and the development of new communities based adaptation measures that can be implemented in both sides of the river.

This experience can become highly useful in other shared basins such as the low La Plata river basin. Also, at least two workshops for best experiences exchange and the development of an exchange protocol are envisaged. This will be the success indicator for the project at its completion work.



*Photo 9: Consultation process with civil society, December, 2017 (Concepción del Uruguay City)  
(Project Team Photography)*

**Output 12.** Social vulnerability monitoring and assessment tools have been developed with a human rights, gender and generations approach.<sup>2</sup>

These tools are essential to assess social regional context and decision making and to enable the project activities' results monitoring. Methodological criteria should be developed for the region in order to compare and combine the resulting information in the Project's different implementation locations.

This methodologies will allow to identify social vulnerability aspects that should be analyzed for each city and monitoring how the adaptation measures contribute to vulnerability reduction and resilience building

The incorporation of the generational and gender approach in the instruments of analysis and monitoring of social vulnerability, so that they can be used within the framework of public policies of both countries. These approaches are potentially complementary to the extent that together they will contribute to improving sustainable human development; for coexistence, for integration, for equity, for reparation, and for the full validity, application and enforceability of a rights-based, integral and universal approach that respects and affirms diversities.

In this case, its incorporation aims at the analysis starting from its actors, for example, the existence of diverse youth, (either by cultural, economic, social or even political conditions and situations), that promote the recognition and evaluation of the youthful worlds for the realization of private and collective life projects, and their subsequent empowerment in all aspects that have to do with their particular and collective development (youth), as well as their country with a future horizon.

Adopt a generational approach, incorporating the social relationships that are established within each generation, as well as the relationships that are established with other generations. It will serve to consider contexts (historical, social, cultural, political or economic), environments, places and spaces, which reveal situations and conditions of advantage or disadvantage, of merit or reward, of exclusion or self-exclusion, of risk or protection, of guarantee of rights or of violation thereof.

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<sup>2</sup> Is understood by "generational approach", the one that "... points to the analysis in time and space of intragenerational and intergenerational relations, in determined historical, social, economic, political and cultural contexts, taking into account the life cycles, roles, actions and symbolic imaginary that the person establishes with its surroundings, society and its institutions".

In this sense, it is considered that social analysis cannot be disconnected from the sectors from which it comes and from its connection to specific territories; Thus, the analysis can be disaggregated according to the ethnic-racial origin, socio-economic stratum and geographic circumscription, improving its effectiveness, since it would allow to identify inequities or common situations in the allocation of resources, program development, social intervention, among others.

Social vulnerability monitoring and analysis instruments have been developed with a human, gender and generation's rights approach", vulnerable communities will benefit from the development of social policies that aim for resilience building in the most affected communities, with a human, gender and generations rights approach. Besides the activities proposed in this Project, these social policies will integrate vulnerable communities to urban life and build resilience among them in order to achieve better and equitable opportunities for their development, livelihood and adaptation.

**Activity 12.1** Social vulnerability monitoring and assessment tools development for each country integrating a human rights, gender and generations approach.

**Activity 12.2** Social vulnerability monitoring and assessment in the Project's selected cities, based on the instrument developed in Activity 12.1. In this way, it is expected to implement such tool and make the required adjustments for its optimization.

**Activity 12.3** Development of a document with the methodology and results of the suggested tools, as well as the common or distinctive aspects and characteristics that arise from its implementation.

**Output 12 inputs and budget:** Technical consultancies, technical and validation workshops, training sessions for methodology implementation USD 200.000.-

**Output 13.** Social risk perception assessments have been implemented for resilience building.

In order to achieve a cultural change in society that incorporates CCA, it is necessary to develop social risk perception analysis methodologies. These will be designed in such way that enables to become familiar with the communities ideas, experiences and assessments and to identify in which way risks are understood, built and reproduced. This perception should be considered in the risk prevention processes.

Through the social risk perception activities included in Output 13, different aspects involved in the risk perception will be assessed as a base line for designing risk reduction collective and individual strategies. This will benefit vulnerable communities particularly, since it will provide tailored risk reduction measures in order to reduce their vulnerable conditions.

**Activity 13.1** Development of a methodology for social risk perception assessment.

Methodologies that allow to become acquainted with the social risk perception levels regarding potential threats and that assess the existing vulnerable conditions will be selected and developed. Participative strategies will strengthen capacities and increase resilience in order to reduce and prevent disasters negative consequences.

**Activity 13.2** Social risk perception analysis, estimation and/or identification in each countries' cities.

Implementation of methodologies in the field. Through the most adequate methodology, different aspects involved in the risk perception will be assessed; ideas, previous knowledge, experiences, priorities and attitudes will be explored that account for how communities socially understand and build risks as a base line for designing risk reduction collective and individual strategies.

**Activity 13.3** Development of a methodological and results document for each country.

Searching, selecting and adjusting methodologies to analyse social risk perception will lead to its further implementation in the field. As a result, a major interest analysis to understand not only social risk perception in a regional scale, but also similarities, differences and distinctive characteristics of each countries communities. With this information, a document will be developed with common results on both sides of the river.

**Output 13 inputs and budget:** Consultancies, workshops, field visits, focal groups and interviews. USD 200.000.-

**Output 14.** Support and labour reconversion strategies were promoted for the vulnerable population.

Labour reconversion strategies for people inhabiting high vulnerability areas and relocated houses is envisage for vulnerability reduction. An assessment will be carried out on families 'productive activities and capacities for the development of new entrepreneurships according to their potentialities. This strategy will be based on locating productive activities separately from vulnerable areas, improvement of such activity by professional training and labour formalization (i.e. regulation of waste classifying and commercialization). Stable and sustainable income generation will be fostered for reducing their vulnerable and exclusion conditions. Social follow up and subsidies will be sustained in time.

The activities considered in Output 14 "Support and labor reconversion strategies were promoted for the vulnerable population" will also be a direct social benefit for vulnerable communities since they will provide adapted and resilient opportunities for new entrepreneurships according to their potentialities and sustainable income sources in order to reduce their vulnerability and enhance their quality of life.

**Activity 14.1** Labour reconversion strategies and resettled families productive activities improvement. Paysandú, Uruguay.

Floods not only affect housing conditions of vulnerable families, but also productive and livelihood activities held on the locations (breeding, brick making, waste classification and commercialization). These activities' reconversion is crucial for relocated families recovery, vulnerability reduction and resilience building.

The project aims to enhance resettlement policies currently performed in several flood risk areas that are occupied by vulnerable poor families. These families typically have very little training, with no formal employment and usually perform informal activities to secure a minimum income, one of the most usual activities is informal waste classification within their own houses. When families are resettled, new job opportunities and higher income activities are expected, so to improve their livinghoods in an integrated approach, not only to have a new non-floodable house but also new alternatives in terms of jobs and income in order for those families to be encouraged to stay in their new safe houses and not to be tempted to come back to occupy floodplains looking for their previous

income activities. The general approach to lower flood risk when dealing with highly vulnerable communities is to improve their capacities in a holistic way, since much of the time the families are located in flood prone areas due to their low income and possible work activities performed in the floodplains.

**Activity 14.2** Socio occupational training and labour reconversion projects´ development. Entre Ríos, Argentina.

Entre Ríos Ministry of Social Development has implemented the “Common House Keepers” project, which is inspired in Pope Francis Laudato encyclical, in order to integrate youngsters with psychosocial vulnerability through training and dignifying job opportunities regarding environmental caring activities.

This activity consists on an extension of an ongoing programme led by the Ministry of Social Development of Entre Ríos province, whose beneficiaries are people that present high socioeconomic vulnerability. In the Project´s framework, this programme will focus on vulnerable people that have undertaken relocation processes, aiming to enhance their living conditions in their new locations, avoiding their dependence on the river´s resources (fishing, brick making, straw weaving, selling regional articles, providing services in touristic areas) that have to be suspended during overflows.

The activity is orientated to tutoring the beneficiaries (approximately 100) in the development of sustainable occupational projects by developing and capitalizing knowledge, capacities and skills that will allow them to increase their income and improve their quality of life.

The activity includes training and socio occupational activities for a period of 12 months. During this period, beneficiaries take part in four training sessions per week of 3 hour duration (48 hours monthly approximately). These hours are destined to training on crafts, jobs, productive projects development and issues related to socio environmental and community development. This scheme is complemented by a monthly economic incentive (approximately AR\$5.000) that the beneficiaries receive by participating on the training sessions during 12 consecutive months. It is to stand out that this economic incentive is proportionate to the person´s assistance to training sessions and activities. Also, the programme includes the provision of the necessary tools for the implementation of the productive projects that are developed during the programme.

After the 12 month period, each beneficiary develops the resulting productive or occupational project with the necessary tools for its execution. Also, the programme promotes the commercialization networks enhancement that potentiate the results through social and regional local economy markets.

**Output 14 budget:** USD 400.000.-

**Output 15.** Social networks have been strengthened by exchanging best practices on CCA, and local risk management strategies.

Knowledge management as well as experiences and lessons learnt exchange will contribute to achieve more effective and sustainable results and a more efficient allocation of resources. It will also promote criteria standardization and the construction of a regional approach. Expected outputs can be very valuable for other basins with similar problems and will especially contribute to La Plata river basin´s strengthening.

**Activity 15.1:** Local, national and regional networks have been strengthened by knowledge and awareness acquisition regarding vulnerable coastal cities, ecosystems and NPA´s role in CCA.

Aiming to promote communities and social organizations participation in spaces that contribute to improving governance and actions sustainability, the strengthening of participative spaces including Project's contents into their working fields is envisaged (CSOs, NGOs, Business chambers, Universities, Farrapos Advisory Commission, Argentina's Private Protected Areas Network, among other stakeholders).

In this sense, different exchange instances and methodologies will be developed, such as publications, workshops, digital platforms, among others. These will contribute and promote Knowledge Management, Lessons Learnt and Best Practices exchange, as well as participation, capacities building and awareness raising.

**Output 15 budget:** USD 300.000.-

**Output 16.** Communication, education and dissemination strategies have been implemented for vulnerability reduction.

For resilience building within communities, in the CCA and disaster risk management framework, it is utmost important for communities to become familiar with their territories, their potentials and restrictions, that they understand the risks they are exposed to, exacerbated by

□ consequences. Access to information and knowledge is essential to know the risks, face them and participate in the vulnerability reduction processes.

Communication, education and dissemination strategies envisaged in Output 16 will also represent benefits for vulnerable communities since they create awareness regarding potential risks, their management and reduction instruments as well as possible solutions and adaptation measures reducing their vulnerability conditions.

From a broader point of view, the development of the cities and works planning instruments, considering future climate scenarios will significantly contribute to improve the populations' life quality and their socio territorial integration. These activities include land management instruments, sectorial plans, vacant land and ecosystem services recovery, among others.

**Activity 16.1** Formal and non formal education experiences development for a sub national CC approach

Enablers, teachers and educator's training will be destined towards complex issues such as CCA and integrated disaster risk management on different levels and educational fields. In order to achieve this goal, the development of different pedagogic and didactic strategies, including educational and dissemination materials with trainees is envisaged. This activity is crucial for generating awareness in different areas and age groups (teachers, children, youngsters, students, professionals, community referents, among others).

**Activity 16.2** Communication campaign implementation for local communities to CC effects, adaptation importance and EWS awareness raising.

Access to relevant public information and communication for local communities will be a transversal and permanent aspect during the Project's implementation, besides being a particular activity itself. Communication campaigns will be plans for each country, according to the target public, their perceptions and media consuming habits in order to suit them to the general purposes CCA and disaster risk reduction awareness raising), and the specific objectives set by each country or community,

**Activity 16.3** Successful experiences dissemination regarding social vulnerability reduction.

Social vulnerability reduction best practices will be identified and gathered for their dissemination by means of different graphic and digital supports in order to promote the implemented strategies' ownership within communities. This will develop a positive image towards communities, reinforcing their identity and sense of belonging in the local context.

**Activity 16.4** Field missions and experiences exchange

These aspects constitute key tools and motivate communities and socialize CC understanding. These will be programmed using collective regional spaces and at least three best practices exchange workshops (one each year) in cities yet to be selected.

**Activity 16.5** Communication and dissemination strategies and actions promoting ecosystems and NPA relevance regarding resilience for CC.

In order to strengthen the cultural change that implies the incorporation CCA and ecosystem's role in such adaptation, the development and dissemination of publications, videos and other contents (physical, web, communication media) are envisaged, especially within NPAs (signage, trails, interpretation and information centres). Also lectures, open workshops, etc focused on key stakeholders.

**Activity 16.6** Strengthening for the development of methodological guides on project communication and management that are implemented as part of CCA strategies. Río Negro Department, Uruguay.

**Output 16 inputs and budget:** sixty workshops, four consultants with experience on CC and disaster risk management for the envisaged activities' implementation. One consultant for dissemination methodological guide and material development. USD 300.000.-

## **B. Innovative solutions to climate change adaptation.**

57. The envisaged innovative solutions contemplate the following approaches:

58. Regional approach considering the lower Uruguay river's basin territory and its transboundary condition, as a critical element for the achievement of sustainable solutions as opposed to local disseminated actions.

59. A sustainable and resilient city conception, that integrates urban infrastructure based on constructions and ecosystems, contemplates social, economic and cultural diversity in its design and actively incorporates citizen participation.

60. The government's policies and actions regarding human settlements, habitat and housing is based on a rights approach that integrates and prioritizes both constitutionally and legally consolidated rights as well as those denominated as "new agenda rights". This new agenda considers, among other aspects, gender, intergenerational relations, disability, sexual and cultural diversity dimensions. It is also a government's priority, the inclusion of diffuse rights into the public agenda and governments actions regarding urban, housing and habitat development, health and healthy environment, suitable and accessible potable water and sanitation. Therefore this initiative contemplates the effective incorporation of rights into public policies, particularly

housing, habitat and urban development and the construction of institutionalism is encouraged according with such definitions.

61. The risk comprehensive management, that considers severe climate events as a priority and management instruments based on EWS and prevention.
62. Ecosystems based adaptation, considering their conservations and/or restoration importance in order to reduce CC impacts and preserve ecosystemic services and benefits.
63. Communities based adaptation, considering local capacities and participative strategies' enhancement for social resilience building, with a human rights, gender and generations approach.
64. As a significant experience for urban adaptation, the Resettlement National Plan of Uruguay, was awarded with the Momentum of Change Lighthouse Activity for the Urban Poor by the UNFCCC Secretariat during the 20th Conference of the Parties in Lima in 2014, it was considered as an innovative adaptation strategy that could be strengthened by additional funding and also be use as a reference for other countries with similar urban flood risks. Under this plan, the resettlement of families with poverty conditions that were initially settled in flood prone areas was considered, based on three fundamental components: socio territorial integration, generation the opportunity to access a decent house in secure urban areas with complete services supply; access to Social Protection System promotion; fostering their integration into health, education and training for a greater occupational insertion and income improvement among others; and the recovery of vacant land for collective non residential uses such as public parks after relocations were completed.  
( [http://unfccc.int/secretariat/momentum\\_for\\_change/items/8692.php](http://unfccc.int/secretariat/momentum_for_change/items/8692.php) )

### **C. Economic, social and environmental benefits of the project**

65. Social benefits: The development of the cities and its planning instruments, considering future climate scenarios will significantly contribute to improve the populations' life quality and their socio territorial integration. Examples of this are the urban infrastructure works for reduction of the overflows impacts and the recovery of vacant land as a result of relocations that will generate new public spaces for the cities.
66. Especially for the actions included in components 2 and 3, during the field mission (December 4-8, 2017), a survey was conducted to identify the profile of the vulnerable groups of each of the target locations. To do this, interviews were conducted randomly with inhabitants of the target areas, and with key stakeholders. Identifying the vulnerable communities of each of the locations, the activities of these components were agreed upon, in order to contribute to cities' resilience and reduce the vulnerability conditions of the population affected by climate change. Both through the construction of sustainable infrastructure adapted to the adverse effects of CC, and of adaptation actions based on the needs of communities and ecosystems, vulnerable communities are the target group of the activities and products proposed to achieve the expected results. And as we have mentioned, the activities were elaborated prioritizing the

rights, gender and generational approach. On the other hand, the strengthening of institutions and the consideration of the CC in territorial policies, plans and programs, will have an effect on vulnerable communities indirectly, but with the objective of incorporating mechanisms and instruments that allow facing the effects of climate variability also reduce the vulnerability conditions of these groups.

67. In the case of Uruguay, the whole adaptation approach for flood risk urban environment comes first from the definition of the flood risk map, where high risk and mid risk areas are determined and in this regard socio-economic conditions of the population play an important part of this determination. In this regard, the project relates to three areas identified in flood risk maps:
  - Enhancing the resettlement strategies of the national and subnational government towards the most vulnerable families in high risk flood prone areas by supporting resignification actions, labor training, and provision of new secure land with adapted services.
  - Enhancing the adaptation of mid risk housing towards middle vulnerability population.
  - Enhancing the resignification of flood prone areas with recreational parks towards the whole population of the city, and also by preventing high vulnerable communities to settle in flood prone areas.
68. Social vulnerability monitoring regarding climatic events will contribute to the development of social policies that aim for resilience building in the most affected communities, with a human rights, gender and generations approach.
69. Also, relocated communities will have new integration opportunities within the cities, access to new decent housing and public services and labour reconversion through training and the development of new ventures that enhance their quality life.
70. Financial opportunities (revolving funds, insurances) offered by the Project, will enable the mid risk flooding affected population to improve their houses.
71. Adaptation measures based on communities, that contemplate education, communications and awareness strategies, as well as existing social networks strengthening, will contribute to promote a more resilient and integrated population. This means that communities will be familiar with climatic threats, prevention strategies and EWS regarding new severe climatic events.
72. Economic benefits: The implementation of financial mechanisms for housing improvements, as well as labour reconversion opportunities for relocated communities represent direct economic benefits. As the same time, the implementation of adapted infrastructure generates indirect economic benefits avoiding costs from emergency response regarding extreme events. The enhancement of improved houses, represent additional economic benefits for both owner and the neighbourhood. Also resignified waterfront areas can bring more economic benefits to the city in terms of tourism and coastal recreational activities.
73. Environmental benefits: The basin based regional approach and ecosystem based adaptation measures constitute the most significant environmental aspects of the Project. NPA strengthening and connectivity, ecosystemic services and benefits mapping, as well as coastal and green areas recovery interventions will contribute to ecosystems and diversity conservation and enhancement. Land management plans will promote the effective use of natural resources

through vacant land recovery that will be transformed into natural parks or buffer areas for water excess and environmental services promotion.

74. Impact mitigation and compliance with the law: The Project will comply with all the applicable local and national regulations regarding Environmental and Social Screening, Assessments and Monitoring including participation and consultation and access to public information requirements. It will also comply with CAF and AF Environmental and Social Policies and an Environmental and Social management instrument will be developed for the whole Project's implementation and administration. Synergies considerations and regional approach are critical regarding these aspects. A screening of risk analysis regarding the AF Principles was undertaken (See section G) where no significant risk were identified and prevention and mitigation measures were described. An exhaustive risk analysis will be developed for each AF principle during the Full Proposal development with particular prevention and mitigation measures for each Principle.

#### **D. Cost-effectiveness of the proposed project**

75. The envisaged activities result cost-effective under the following considerations:
76. Strengthening National and Sub-National capacities through the development of planning and management instruments with a CC approach will enable more effective and efficient actions. The articulation of instruments such as EWS and regional risk management plans between countries contribute to a comprehensive vision of the problem providing more effective and sustainable solutions and measures, avoiding the need to review and adjust them at national and/or local level.
77. Moreover, maintaining an ongoing dialogue between countries and exchanging best practices and successful experiences, will favour replicating positive implemented experiences. Joint work among the different involved stakeholders from each country will prevent duplicating efforts and the use of resources, enhancing possible synergies.
78. Re-significating, vacant land from relocations not only contributes to the provision of new public spaces for the population, but also prevents re settling and the need of undertaking future relocations if floods affected newly settled vulnerable groups. With these actions, avoiding potential emergency response costs will be possible since the affected community won't occupied flood prone areas. On the other hand, new settlements with resilient infrastructure will
79. increase their sustainability and reduce further negative effects for their inhabitants, providing them with better life conditions and opportunities, making them more resilient to climate change.
80. Supporting measures, such as promoting new working skills in the affected communities, reinforce relocations sustainability and communities capacity to improve their lifestyles and earnings, building resilience against extreme events.
81. Ecosystem based adaptation measures, such as coast restoration, have proved to be of lower monetary investment and much more effective by enhancing and recovering ecosystemic services and its benefits. This kind of measures also increases community's awareness about

climate change reinforcing sustainability. The cross-border approach significantly contributes to increase the effectiveness and efficiency of the proposed measures.

82. A capacity building and knowledge management strategy increases the community capacities promoting resilience and empowerment. Promoting a unified vision and strategy at the regional level promotes more efficient and sustainable measures in the entire area affected by CC, potentially achieving economies of scale when implementing such measures.
83. A detailed cost-effectiveness analysis will be undertaken during the Full Proposal elaboration.

## **E. Describe how the project is consistent with national or sub-national sustainable development strategies**

84. The Project will be fully aligned and contributes to Argentina and Uruguay's objectives and priorities regarding the countries' policies and plans.
85. As previously mentioned, Uruguay has constituted a National Policy on Climate Change until 2050 and has presented, on November 2017, its first National Determined Contribution (NDC) regarding Paris Agreement. The Project's contribution to the referred policy's different dimensions is to be stressed. Regarding social dimension it considers: promotion of the populations' adaptation and resilience capacity promotion regarding CC and climatic variability emphasizing on social and climate most vulnerable groups; disaster risk management strengthening in local, departmental and national levels by means of different institutions and community coordination, articulating legal and tax instruments and the promotion of cities, communities, human settlements and sustainable and resilient infrastructure regarding CC. Considering the environmental dimension the following stand up: natural ecosystems' conservation, recovery and restoration and ecosystemic services and benefits provision based on adaptive management; vulnerability reduction in face of CC impacts on coasts and riversides by means of ecosystem based adaptation actions that minimize losses and damages.
86. Considering Uruguay's first NDC, the Project will foster a number of priorities and adaptation measures towards CC that are included in it. The most relevant are: re-signification of floodable zones by the assignment of new uses; at least eight floodable cities will count with a floods EWS; adaptation measures promotion in at least 30% of the cities with over 5.000 people; at least seven departments will count with regional, departmental or municipal local adaptation plans, at least six NPA that include CC in their management plans; and at least 20% of the Uruguay river, La Plata river and Atlantic Ocean's coast has an adaptive management with priority of most vulnerable sections.
87. Sustainable territorial planning is a priority for Uruguay's government, counting since 2008 with a Land Planning and Sustainable Development Act. This law promotes a comprehensive approach of planning and enables, among other aspects, to respond to CC effects, being local land management plans one of its instruments. Therefore, it can be affirmed that the present Project is consistent with this policy, since it expects these plans to consider CC.

88. Another Project's relevant aspect is related to climatic risk management and EWS that is considered in Uruguay's policy on this matter. On year 2009 the National Emergency System was established by law, in order to protect people, significant assets and the environment in face of disaster situations. In this framework, an EWS has been developed for a number of cities, especially those vulnerable to floods and protocols have been developed for the comprehensive climate risk management's different stages.
89. The Project is also aligned with national policy on biodiversity, considering the Law that creates, in year 2000, the National Protected Areas System which provides a fundamental tool for NPA's planning and management. Also, its regulating Decree incorporates their management plans enabling the incorporation of CCA elements.
90. Regarding water resources, Uruguay has a Water National Policy approved in 2009. It establishes that water resource management will aim for their sustainable utilization and will contemplate climate variability and extreme events situations in order to mitigate negative impacts, especially on populations. Also, the National Water Plan from year 2017, incorporates comprehensive water management instruments (basins, aquifers, urban waters) in which climatic risk approach is fundamental.
91. Uruguay was also recently awarded (January 2018) by the Green Climate Fund Readiness Programme a support to develop a National Adaptation Plan on Cities and Infrastructure that will also catalyse previous actions and experiences into a new systemic approach to CCA in cities, being the Uruguay river flood prone cities some of the prioritized areas for such NAP.
92. Considering Argentina's NDC, CCA is its main priority, taking into account the negative effects that have already affected the territory. In this context, Argentina includes in its NDC adaptation aspects, according to articles 7.10 and 7.11 of Paris Agreement. Within the Climate Change National Cabinet, the development process for the National Adaptation Plan (NAP) has been started, which will respond to identified priorities by the different sectors, jurisdictions (through COFEMA and municipal representatives) and civil society, academy and private sector relevant stakeholders. The NAP, which will have sub national and sectorial chapters, will promote the identification of adaptation priorities at national level, in order to generate an institutional and concept framework that will enable the design and implementation of local adaptation plans by other stakeholders. It is to remark that Argentina is undertaking to adaptation projects for the livestock sector with AF funding (a total of USD 9.936.817). These projects fund concrete adaptation measures in highly vulnerable communities: one on the country's Nor east for family agriculture adaptation and resilience building, and the other in Buenos Aires' Southwest for climatic resilience and sustainable land management.
93. Federal Plan for Flood Control is being implemented by the Ministry of Public Works and partially funded by de Hydrological Fund for the reduction of flood's effects and the development of water infrastructure. The proposed activities will foster this Federal Plan and will complement it with lessons learnt, pilot experiences and best practices.
94. National Plan for Disaster Risk Reduction form SINAGIR has been considered and is supported by the Project.

95. Regarding RAMSAR Convention on Wetlands, to which Argentina adheres by laws N°23.919 and N°25.335, the Strategy for La Plata Basin Wetland Conservation and Sustainable Use will be supported by the adaptation initiatives based on ecosystems included in the Project. Technical cooperation among basins will be enhanced by the activities of knowledge management, lessons learnt and information a best practices exchange.
96. Additionally, the following local projects, policies and plans will be supported and capitalized, among others:
- Local Plan for Land Management and Sustainable Development in Paysandú and its micro region,
  - Local Plan for Land Management and Sustainable Development in Salto and its micro region
  - Fray Bentos and influence area Local Plan,
  - Urban Water Plan for Salto city,
  - Entre Ríos Environmental Diagnose, Territorial Strategic Plan,
  - Development Plan for Concordia,
  - Strategic Plan for Concepción del Uruguay,
  - Environmental Urban Development Plan for Colón,
  - Entre Ríos Provincial Strategy on low carbon and climate change resilient development.

## **F. Describe how the project meets relevant national technical standards**

97. The Project will comply with all the applicable local and national regulations regarding Environmental and Social Screening, Assessments and Monitoring including participation and consultation and access to public information requirements. It will also comply with CAF and AF Environmental and Social Policies and an Environmental and Social management instrument will be developed for the whole Project's implementation and administration. The Project will also consider national and local laws regarding technical standards, procurement, NPA, land management, construction codes, among others.
98. Relevant National legislation and regulations is presented:
- For Argentina:**
99. Law 25.675: Environmental National Policy. Environment General Law
100. Minimum standards National Law for a sustainable and adequate environmental management, biological diversity preservation and protection and the implementation of sustainable development (Art 1°).
101. It designates the following instruments for environmental policy and management: territorial planning, environmental impact assessment, monitoring system for the development of anthropogenic activities, environmental education, environmental information and diagnose system, economic regime for sustainable development promotion. (Art 8)

102. All construction or activity developed in the National territory, which is feasible of affecting significantly the environment or any of its components, or the communities' health will undergo an environmental impact assessment before its implementation. (Art 11)
103. Procedure starts with the presentation of an environmental affidavit stating if the construction or activity will have any effect on the environment. The competent authorities will state the need of and environmental impact assessment (EIA) which requirements will be established in a separate law for each jurisdiction. When required, an EIA will be developed and environmental impact statement will be issued approving or disapproving such construction or activity.(Art 12).
104. Authorities will be responsible for the diffusion of the environmental conditions and the effects that ongoing or envisaged anthropogenic activities could have on the environment. ((Art 18) Authorities should institutionalize consulting and audiences procedures as mandatory requirements for the approval of activities that could cause significant negative effects on the environment. Participants opinion or objections will not be binding (...) (Art. 21)
105. Decree 4977 regulates the above mentioned law establishing activities categorization, minimum requirements for EIA, Environmental Management Plans, Environmental Audits, community and stakeholder's participation among others.
106. Entre Rios subscribes to the above mentioned law by Resolution 038/10 and recognizing Municipalities competence regarding territorial planning and environmental certifications.
107. Law 25831: Access to public information:
108. This law establishes minimum standards and procedures for environmental protection in order to guarantee the right to access environmental public information.
109. Law 25688: Environmental regime for water management:
110. Establishes minimum requirements for water preservation and rational use. This law will be considered in the design and implementation of public services and coastal defences and their corresponding EIAs.
111. Law 25916: Urban Waste Management:
112. Establishes minimum standards for environmental protection regarding urban waste management. Entre Ríos Province subscribes and establishes its Urban Waste Management system by Law 10311.
113. Law 24051 Hazardous Waste Management:
114. Sets minimum requirements for Hazardous Waste Management including its generation, manipulation, transport and final disposure. Entre Rios subscribes to the national regulations by Law 8880. Note that no hazardous waste significant generation or manipulation is envisages for the Project. Nevertheless, some construction activities may lead to the generation of a minimum amount of non domestic waste. The corresponding EIA will state the guidelines for each particular case regarding these regulations.

115. Law 22.351 – National Parks, Natural Monuments and National Reserves

**For Uruguay:**

116. General Law for Environment Protection (Nº 17.283, December 28th 2000): Establishes the environmental policy's principles and environmental managements instruments (EIA, SNAP, among others).
117. National Policy on Climate Change to 2050 (November 3rd 2017):
118. Its goal is to promote adaptation and mitigation in Uruguay in face of Climate Change, contributing to the countries sustainable development.
119. Natural Protected Areas National System creation and management law (Nº17.234 February 22nd 2000), and its Regulating Decree (Nº52 from 2005)
120. National Water Policy Law (Nº 18.610 October 2nd 2009):
121. It establishes that all population has right to access potable water and sanitation. Also, it establishes guidelines and instruments for water resources management, conservation and protection. On Article 8, it states that, for bi national water resources sustainable management coordination, technical cooperation, and consumers' participation during all stages of planning, management and control should be fostered.
122. Land Planning and Sustainable Development Law (Nº18.308 June 18th 2008):
123. Sets the general regulating framework for land management and sustainable development, defines planning, participation and acting competences and instruments. Orientates land management towards the achievement of national and general interests. Its regulating Decree 221/2009 sets that all land management should integrate the environmental dimensions through an Environmental Strategic Assessment.
124. National Emergency System Law (Nº 18.621 October 25th 2009):
125. Creates an National Emergency System which goal is to protect people, significant assets and environment in face of the eventual or real distaste situation through the coordination of the State with the adequate use of public and private available resources, in order to foster the national sustainable development.
126. Law on decentralization and citizen participation; (Nº 19.272 September 18th 2014): Sets Government's third level stating that all every population over 2.000 people will constitute a Municipality and its territorial circumscription should conform a unity, with social and cultural personality, with common interests that justify the existence of representative political structures that enable citizen participation.
127. Environment Law (Nº16.466 January 19th, 1994):

128. States the Environmental Impact Assessment and Environmental Authorizations regime. Regulating Decree 349/2005
129. Law on Right to Public information Access (N°18.381 October 17th, 2008):
130. Promotes administrative functions' transparency in all public organisms and warrants the fundamental right of people to Access public information.
131. Natural Protected Areas National System Law 17.234 from 2000 and modifications:
132. Set the framework for the development and management of the Natural Protected Areas National System (SNAP).

## **G. Describe how the project complies with the Environmental and Social Policy of the Adaptation Fund.**

***Briefly describe in the space below how the Project mainstreams the Principles 1:***

### ***Compliance with the Law***

133. The project integrates compliance with the Laws in both countries. Both countries have several laws, regulations and specific procedures to manage environmental and social projects like this one.
134. At the local level, both countries have a municipal government with a set of competences established by law, such as development planning, management and control of land use, public sanitation services, among others related to mobility, public transport, permits of construction and community development. The project document supports all local regulations related to the specific areas of this project.
135. The Project is articulated through compliance with the different regulations as described in Chapter II. F.

#### Argentina

- Law 25.675: National Environmental Policy. General Law of the Environment
- Law 25831: Access to public information
- Law 25688: Regime of Environmental Management of Waters
- Law 25916: Urban Solid Waste Management
- Law 24051 Hazardous Waste Management

#### Uruguay

- General Law for the Protection of the Environment (N° 17.283 del 28 de December del 2000):

- National Climate Change Policy to 2050 (3 de November de 2017): Its objective is to promote adaptation and mitigation in Uruguay to the challenge of climate change, contributing to the country's sustainable development.
- Law for the creation and management of the National System of Protected Natural Areas (Nº17.234 of 22 of February de 2000), and its Regulatory Decree (Nº52 de 2005).
- Law on National Water Policy (Nº 18.610 del 2 de October de 2009):
- Law on Territorial Planning and Sustainable Development (Nº18.308 del 18 de June de 2008):
- Law for the creation of the National Emergency System (Nº 18.621 del 25 de October de 2009):
- Law on decentralization and citizen participation (Nº 19.272 del 18 de September de 2014):
- Environment Law (Nº16.466 del 19 de January de 1994):
- Law on the right of access to public information (Nº18.381 del 17 de October de 2008):

Finally, CAF as implementing entity will mainstream the compliance with all the laws. The project has an organization structure with a Project Board and a Project Unit responsible for making management decisions and monitor the compliance with all current regulations.

***Briefly describe in the space below how the Project mainstreams the Principle 2:***

***Access and equity***

The project is designed and implemented in a way that does not impede but rather promote the access of any group to essential services and basic rights.

For the design of the Project during the Pre Concept phase, a consultation process was carried out at the sub national level with the local authorities to evaluate what the existing needs in the region communities were. Then in the process of formulating the note of agreement a consultation process was carried out through informative workshops with the local communities both those directly benefited and those who could have co-benefits of the project. This ensured that the design of the project will not discriminate in any way the communities.

Likewise, the project states that it will design in its Full Proposal phase the communication mechanisms between the project and the communities. This is reflected above all in component 4 (Priority measures to increase social resilience) where it works directly with the community and social organizations where social vulnerability monitoring and analysis instruments are developed with a human rights, gender and generations perspective.

Methodologies of analysis, estimation or identification of the social perception of risk for the construction of resilience will be implemented, support and reconversion strategies will be promoted for the vulnerable population, social networks will be strengthened through the exchange of ACC strategies and experiences. local risk management and communication, education and dissemination strategies will be implemented to reduce vulnerability.

***Briefly describe in the space below how the Project mainstreams the Principle 3:***

***Marginalized and vulnerable groups***

The Project has a relevant participative approach and incorporates specific actions to involve marginalized and vulnerable groups. During the design of the Project, a stakeholder's analysis was undertaken in order to map their respective socio economic conditions in Concepción del Uruguay, Paysandú, Colón, Concordia and Salto (Annex 5).

***Briefly describe in the space below how the Project mainstreams the Principle 4:  
Human rights***

Both countries have ratified the core international human rights treaties. The Human Development Report (UNDP, 2016) show Uruguay in ranking 54/188 qualified as High Human Development and Argentina in ranking 45/188 qualified as Very High Human Development. Human development is all about human freedoms: freedom to realize the full potential of every human life, not just of a few, nor of most, but of all lives. This project would help with these realizations, even though the project are going to be develop in poverty areas with a lot of needs, the principle of universalism of the human rights will be translation into practice in the specific subjects, such as: adaptation measures, reduce vulnerability, reduce the risks of future disasters and help the people of this neighbourhoods to have voice and autonomy and also to be prepared for future disasters among others.

The project will mainstream a human rights-based approach, by ensuring the compliance with the realization of human rights, as established in the Universal Declaration, as well as,

the other international instruments related with human rights. The project would contribute the development of the capacities of the “duty bearers” to fulfil his duties and with the “rights holders” to claim their rights.

Promotion of human rights in the project will be achieved by creating awareness among all involved stakeholders and implementing entities in the project operations, including design, execution, monitoring, and evaluation, about the Universal Declaration of Human Rights as an overarching principle in the implementation.

***Briefly describe in the space below how the Project mainstreams the Principle 5:  
Gender equity and women´s empowerment***

The gender approaches taken in the presented proposal are substantiated by international and national legislation.

The Project aims to strengthen gender equity since women and men have different capacities and vulnerabilities. In this sense, the Project will be an opportunity to increase women and men´s vulnerability knowledge for assessing and analyzing if there is a significantly different risk because of gender aspects that allows to find concrete answers that support the breach reduction.

***Briefly describe in the space below how the Project is likely to improve the Principle 6:  
Core labour rights***

Both countries have ratified the eight core labour conventions, and in general face similar challenges like child labour and discrimination in respect to employment and occupation.

The Project mainstreams core labour rights in all the actions and at different levels. Argentina and Uruguay have mechanisms and laws related to labour rights. During the implementation, this Project will find the best mechanisms to mainstream this principle. CAF will act as an implementing entity. In this case, all the contracts hired will have to consider CAF´s regulations. CAF follows strictly core labour conventions, avoiding child labour and any kind of discrimination.

The constructions mitigation measures will strictly follow the general conditions for contracts of civil works as well as the applicable labour legislation of each country. Also and specific output

and activities have been put in place regarding job opportunities for vulnerable communities, in this regard an effort will be made to enhance capacities of working men and women in vulnerable communities to move to formal and less vulnerable livelihoods.

***Briefly describe in the space below how the Project considers the Principle 7: Indigenous peoples***

In this Project, there are no identified Indigenous communities present.

***Briefly describe in the space below how the Project considers the Principle 8: Involuntary resettlement***

The Concept Note clearly indicates that all resettlement support processes are community based and that there is not going to be any type of involuntary resettlement to be carried

out and/or be supported by the Project.

***Briefly describe in the space below how the Project considers the Principle 9: Protection of natural habitats***

There are numerous Natural Protected Areas (national, local and private) in the area of Project implementation. They present different degrees of progress in their management and conservation, institutional agreements, projects and initiatives.

Pilot adaptation programs will be designed for their implementation in order to promote a useful adaptation methodology in areas with ecosystemic relevance, especially in Natural Protected Areas (NPAs) in order to promote the conservation of biodiversity in the context of threats climatic. These programs should consider the mapping and evaluation of environmental services in such a way that the relationship between ecosystems and human activities contributes to the reduction of climate risks in the community and economic spheres.

Exchange activities will take place between the National Parks of El Palmar (Argentina) and Esteros de Farrapos and Islas del río Uruguay (Uruguay) and the intention of a formal agreement between the National Parks Administration (APN) of Argentina and the MVOTMA-SNAP (System of Protected Areas of MVOTMA) of Uruguay.

Works will be identified, designed and executed to adapt vulnerable infrastructure (for tourism, livestock and beekeeping) in protected areas. Evaluation and adjustment of executed works.

In this sense, the project will work in an articulated manner in the improvement, conservation and promotion of the adaptation based on ecosystems as a measure of primordial adaptation for the development of the region.

***Briefly describe in the space below how the Project considers the Principle 10: Conservation of biological diversity***

Both countries where intervention will be undertaken are Parties to the Convention on Biological Diversity and have National Biodiversity Strategies.

The project will consider conserving biological diversity during the implementation of ecosystem based adaptation measures through fostering the adoption of native plant species. This will be

promoted for the component 2 and 3 where re signification of spaces as lineal parks and conservation of natural habitats will be developed.

***Briefly describe in the space below how the Project considers the Principle 11:  
Climate Change***

Both countries have ratified the Convention, the Kyoto Protocol and the Paris Agreement. Argentina and Uruguay have presented their First Nationally Determined Contributions (NDCs). The Project will manage the total amount of greenhouse gases emitted from the project implementation by undertaking rapid greenhouse gas emissions calculation using

internationally recognized methodologies.

The process of construction of re signification spaces will not exceed the suggested limits of CO<sub>2</sub> taking into account that they are the construction of green spaces with flood capacity and with the objective of being recreational areas, and may even work as carbon sinks. In component 2, where re signification of vacant spaces will be performed, pollution levels could be generated by vehicle displacements for construction materials that will be local or have a very low to minimal carbon footprint.

***Briefly describe in the space below how the Project considers the Principle 12:  
Pollution prevention and resource efficiency***

The Project will not generate greater pollution taking into account that they are workshops, consultancies for the generation of documents and the conservation and restoration of protected areas. In component 2, where some type of pollutant could be generated, it would be the waste of the construction works of the parks and resettlement areas.

***Briefly describe in the space below how the Project considers the Principle 13:  
Public health***

In general, the submitted proposal does not hold an implication of negative impacts on public health. The release of pollutants produced during the transport of material will be kept minimum and water or soil contamination as well is not expected to occur for this type of infrastructure construction; the other outputs and activities would not affect public health.

However, since community health and safety can be directly affected by noise, vibration, dust creation, traffic, emissions and air quality, implementing bodies will be informed of such impacts from construction work and try to minimize the impact on public health during the process.

To minimize disturbances on the public during building construction, not only the process of transport (i.e. building material delivery and other goods and services) will be managed but particular attention will be placed on the safety and health of workers along with communities residing around the construction site.

***Briefly describe in the space below how the Project considers the Principle 14:  
Physical and Cultural Heritage***

In both countries where the Project will be carried out, there are sites with historical, cultural, artistic, traditional or religious values that may be affected by the increase in coastal erosion.

In both National Parks, a work of exchange, joint learning and construction between the teams and actors of both locations is proposed. Advance in the development of a bi national park, as a biological ecosystem corridor, from a regional scale, and at the local level. New measures

aimed at revegetation and management of invasive alien species. It is also proposed to work on adaptation measures in a coordinated manner, through the development of maps, atlases, censuses, baselines, integrating a more urban rural interface in an integral format. Also try to protect the Jesuit Ruins that are inside El Palmar National Park and that are in danger of collapse due to the erosion of the coastal zone, such as the areas of Nuevo Berlín and Farrapos.

In this sense, the Project will seek the conservation of historical sites of high cultural and tourist value of both countries through the implementation of ecosystem adaptation measures under component 3.

***Briefly describe in the space below how the Project considers the Principle 15:  
Lands and Soil Conservation***

The increase in average annual precipitation and extreme rainfall has generated a series of changes in the hydrological system of the basin, due to the decrease in the capacity of infiltration and storage of water in the soil system, the decrease in volume stored in the underground layers by erosion and compaction, as a result of urbanization, inadequate practices in agriculture, afforestation with exotic species and deforestation of the natural forest. As a result, there is an increase in coastal erosion at times of maximum precipitation and an increase in droughts at times of low rainfall.

One of the cities with the greatest erosion problems is Concordia. For the above, it will seek to generate protection against the erosion of the coast and several repairs in the water treatment plant in the city of Concordia, Argentina. In this sense, the project, in contrast to generating a negative impact, will work on the conservation of the margins with measures of ecosystem adaptation mainly.

## **H. Describe if there is duplication of project with other funding sources**

136. There is no duplication with projects with other funding sources. On the contrary, the proposed actions and measures complement the efforts that both countries are undertaking, especially those regarding land management plans strengthening, resettlement programs and existing EWS institutionalization.
137. Argentina has been working on the disaster risk management promotion through interinstitutional initiatives such as the current Risk Management Work Commission formed by specialist from different entities that are related to knowledge and scientific investigation with the support and coordination of the Ministry of Science, Technology and Productive Innovation's (MINCYT) Technological Articulation Secretariat. Its main goal is to organize and coordinate the Science, Technology and Innovation National System in order to generate a suitable articulation among the System's members for the effects of contributing to natural disaster related emergencies prevention.
138. On 2016, Inter American Development Bank (IADB) approved the Emergency Program for an Immediate Response to the Flooding in Argentina (AR-L1245) in order to support the transition process of the affected people towards the recovery of their social and economic regular activities, through the rehabilitation of road and water infrastructure regarding flood protection, public use buildings such as damaged schools and evacuation centres. Also, it expects to contribute with the basic services re establishment such as water and electric

energy in the affected areas, and finally cooperate with the remediation of areas that are susceptible of potentiating vectors' effects.

## Uruguay

139. In Uruguay, the Climate Change National Policy in force since 2017, frames the guidelines for sectorial policies regarding adaptation, such as water resources, land planning, housing and biodiversity. Currently, the country is developing a National Adaptation Plan for Cities and Infrastructure (NAP Cities) supported by the Green Climate Fund (GCF) Readiness Programme, which focuses on identifying vulnerabilities and actions in urban areas and infrastructures throughout the country.
140. On the other hand, since 2005 the Housing and Habitat Policy has been consolidated as a State policy, with leading five-year plans. The Housing Five-year Plan 2015-2019 establishes the consolidation of the Land Policy that generates sustainable conditions for the Housing and Habitat Plan as a particular priority. Additionally, another priority is to continue with the efforts to revert the problem of precarious housing from a "right to the city" point of view, and working in a intersectoral environment. In this way, MVOTMA and sub-national governments developed housing plans for the relocation of those communities living in floodable areas. These actions are executed with national funds and are complemented with IADB funding through the Planning and Budget Office from the Republic's Presidency.
141. Regarding risk disaster management, since 2015, the SINAE, through the Euroclima Program funded by various agencies, has started to develop a Disaster Risk Management Plan based in the Regional Plans.
142. Also, since the approval of the Water National Policy, a Water Plan has been developed which defines programs and projects that address water and sanitation infrastructure aspects in the different departments and particularly the definition of risk maps and infrastructure solutions in vulnerable cities regarding floods.
143. From the ecosystems point of view, the following interventions are taking place:
144. "Landscapes and National protected Areas System" project from MVOTMA with funding from UNDP and GEF, that include a pilot site that surrounds Montes de Queguay, Esteros de Farrapos e Islas del Uruguay and Esteros y Algarrobales del río Uruguay NPAs.
145. Also, the "Protected areas and surroundings value chains and governance" project, also by MVOTMA, along with UNDP and the French Fund for Global Environment (FFEM) and the "Biological corridor in Uruguay's west littoral" by CEADU with the European Union. None of these projects represent duplication, but opportunities for synergies.

## **I. Describe the learning and knowledge management component**

146. The Project understands that a regional approach is crucial for facing the CC effects and for implementing sustainable and resilient adaptation measures facing the changes in the
147. hydrological regime of a share driver. Government authorities, institutions and organizations, as well as civil society, community based organizations and educational institutions play different and important roles in the identifications, design and implementation of such measures.
148. In this sense, information, best practices, lessons learnt Exchange and integrations as well as knowledge management are key tools that promote participation and ownership, innovation and efficient allocation of resources and efforts.
149. Regarding disaster risk management, workshops and training for local and regional governments are envisaged, addressing positive experiences on land management, strategies for the development of sectorial plans regarding risk management and EWS, among others. These workshops and trainings will constitute learning and knowledge exchange spaces in order to gather information, unify criteria and set regional strategies. Training for officers, legislators, communication media and communicators, among others, to strengthen technical capacities and create regional knowledge. Validation workshops will contribute with first hand substantial information.
150. Plans, protocols and maps that include CC perspective will form part of resulting documents: land management and sectorial plans, disaster risk management plans, EWS, protocols, ecosystemic services and benefits maps, risk and vulnerability maps, damage and loss assessment methodologies, among others.
151. Regarding vulnerability reduction and resilience building, various workshops will be developed for local and regional governments, community organizations, educational institutions, among others. These workshops seek to generate knowledge, exchange adaptation experiences (financial, normative) and sustainable and resilient infrastructure (urban and housing), vulnerability reduction strategies and the design of pilot programs and projects.
152. Documentation, organization, standardizations and systematization of this information in digital platforms, will contribute to the proposed activities' efficiency and effectiveness and the sustainability of their results. Alliances, networks and information exchange tools and protocols (observatories, publications, monitoring indicators) will be established in order to sustain this exchange in time, and to update such information and knowledge. Awareness, communication and dissemination plans and actions will be focused in local communities (formal and non formal education, publications, field missions).
153. As complement of these tools, information Exchange and dissemination among other basins and complementary projects will be encouraged.

## J. Describe the consultative process

154. During the Field Mission and the project validation workshops (December 4-8, 2017), officials of the CAF team, of the MAyDS, of the MVOTMA, of the Province of Entre Ríos, of the cities of Concepción del Uruguay, Paysandú, Colón, Concordia, Salto, Río Negro, San Javier, representatives of social organizations, private organizations, neighbors, and the consultant in charge of the formulation of the Project participated. In addition, a specialist participated in the survey to identify the profile of vulnerable groups in each of the participating locations. To this end, interviews were conducted with inhabitants randomly selected from the intervention areas, participants of the validation workshops (representatives of NGOs, businessmen, merchants, housewives, etc.), and interviews were held with key stakeholders.
155. Validation workshops with civil society and especially with the affected population, were structured to encourage vulnerable groups and key project stakeholders to express their opinions regarding the intervention and that all of them be documented in order to be considered in the design of the project draft. In ANNEX 5, the second consultation process has been systematized, which complements the first consultation instance held in July 2017 (ANNEX 4). In each city, working meetings were held with authorities and representatives of the Municipality in the morning, followed by a field visit of the areas and in the afternoon a Workshop was held with the community.
156. The following paragraphs summarize the information included in these three annexes:  
Annex 4: “Systematization of the Consulting Process. July 2017”; Annex 5: “Systematization of the Consulting Process. December 2017” and Annex 8 “Stakeholder Mapping and Socio Economic assessment of cities, gender and vulnerable groups”
157. Regarding the stakeholders map development, the material forwarded by the different involved jurisdictional levels regarding each output was reviewed, on-site. Skype and telephone interviews were held with over 50 key stakeholders from civil society and the different levels of involved governments in both countries as well as the private sector. The map’s objective is to recognize the stakeholders’ main roles regarding the Project, and to identify possible actions that social and institutional stakeholders could undertake, outlining a network of interinstitutional partnerships regarding the intervention proposal. The stakeholders map defines the role - mission that each organization plays regarding the Project; competences- concrete actions that the stakeholder is responsible for; authority -the level and formality of the stakeholders influence I; their positioning –the stakeholders attitude towards the Project, that can be in favour, neutral or against; and the type of expectation regarding the Project – high, medium or low.
158. The workshops held during the development of the Pre Concept Note were:

- two workshops ,on July 17th and 24th, with the participation of Argentinean and Uruguayan authorities, and
- two workshops in vulnerable cities of the Uruguay river with the participation of national, departmental, provincial and local authorities; one in Concordia (Argentina) and one in Paysandú (Uruguay) (see [Annex 4](#)). Participants from Argentina were representatives of the cities of Gualeguaychú, Concordia, San José, Liebeg and Concepción del Uruguay, and Uruguayan participants were from Artigas, Salto, Paysandú and Río Negro Departments.
- These workshops included an induction block on the AF characteristics, collaboration between AF and CAF and between AF and both countries, as well as illustrative examples of other AF projects. Aspects eligible for the Project that had been previously identified by each city were discussed in groups. The attendees were over 100 representatives of different technical and political areas from different levels of government .

159. For the Concept Note development, the Project promoted different participating spaces for public institutions, academy and social organizations. A field mission was undertaken between December 4<sup>th</sup> and 8<sup>th</sup> with the participation of CAF, MAyDS, MVOTMA and Entre Ríos Province representatives, from the cities of Concepción del Uruguay, Paysandú, Colón, Concordia, Salto, Río Negro, Fray Bentos, Bella Unión, San Javier, as well as social and private organizations, neighbours, the consultants in charge of the Concept Note development and of the vulnerable stakeholders analysis. The cities of Concordia, Colón and Concepción del Uruguay in Entre Ríos Province, Argentina and the cities of Salto and Paysandú from Uruguay were visited.
160. Consultation/ validation workshops (see [Annex 5](#)) were developed with the following objectives: i) validating with vulnerable groups and stakeholders/beneficiaries the Project's proposals; ii) documenting and attending vulnerable groups opinions according to AF requirements; iii) validating new proposals from the beneficiaries and iv) generating opinion and validation spaces with beneficiaries, key stakeholders and vulnerable groups.
161. During the sessions, the Project's logical framework summary was provided to the attendees, the AF funding scheme and the activities to be developed were explained. During the group work, an observer recorded concerns and commentaries from the participants. In the plenary session, each group exposed and documented their exchanges. Finally, next steps were explained and the event's closure was carried out.
162. Also, meetings with technical teams and field visits were undertaken in locations where interventions are envisaged (listed below). Requirements were recorded and the proposals were reviewed jointly with officers and technicians in charge.
- Cantera 25 de Mayo neighbourhood, Concepción del Uruguay (with previous visit to South Defence5)
  - Unión Portuaria, Ledesma y Paysandú neighbourhoods
  - El Palmar National Park, Colón
  - Water treatment plant and eroded adjacent coast, Concordia
  - Muelle Negro and linear area Sauzal stream, Salto

163. For Argentina, the activities conducted by GNCC will become key tools to incorporate key stakeholders throughout the Project. The process not only contemplates national agencies and ministries, but also includes subnational governments, communities, private sector and CSO among others. COFEMA and the Federal Water Council (COHIFE) work in a similar way, including representatives from each province. The Project will capitalize the described mechanisms, as well as other institutional arrangements in order to achieve stakeholders participation and commitment.
164. Between 2016 and 2017, there have been several meetings with local governments and key stakeholders to develop specific proposals for each locality and provide evidence of this participative process in order to prepare materials that were used in support to the development of the Concept Note.
165. Numerous bi national proposals are being developed, regarding risk and protected areas management. There are also different tools and partnerships from MERCOSUR and Mercociudades that contribute to undertake joint interventions for the Basin.
166. This South Defense is completed and similar to the North Defense, under construction. Parks, boardwalks, equipment and lighting allocated in these vacant lands were visualized that work as reservoirs during strong rains.
167. Furthermore, a Community Relations Plan will be developed that includes a Key Stakeholders Participation Plan, Complaint Mechanisms and Consultation Processes. It will be enriched from the actions above described and will address the following aspects:
- Previous consultation
  - Stakeholders mapping
  - Key stakeholders identification
  - Dissemination of the following Projects aspects: detailed Project's description, list and explanation for each probable impact; prevention, minimizing, mitigation and compensating measures for those impacts;
  - Monitoring and Complaint and Claiming Plan, establishing a mechanism so any person that feels harmed can inform the responsible person.

## **K. Provide justification for funding requested**

168. The Project seeks to contribute to resilience and adaptation of vulnerable coastal cities and ecosystems of the Uruguay river in both Argentinean and Uruguayan margins, by the development of instruments, tools and experiences for planning and adaptation to climate change and climate variability. In this sense, the Project will contribute to further strengthen existing national processes of policy design and implementation and strategies development for facing climate change. It also fosters the implementation of concrete actions and the generation of experiences based on such solutions, that could be replicated in other cities of both countries, increasing these best practices outreach.
169. On the other side, the Project will generate dissemination and assessment actions for society allocating relatively reduced funds, but still have a wide outreach and a positive and

synergic effect on capacities for greater resilience. Adaptation Fund's support, will enable the implementation of a strategy integrated and suitable to the regions specific conditions, that

170. covers from policy planning to specific actions implementation, their monitoring and assessment, and the corresponding articulation with other nationally implemented actions. As a parallel result, this project will allow to generate knowledge and strengthen capacities of the target populations.
171. In particular, AF funds will be allocated into the four Project's strategic components: i)
172. Territorial adaptation and flood risk management policies, plans and instruments, ii) Priority measures for floodable cities' resilience increment, iii) Priority measures for adaptive conservation of vulnerable coastal ecosystems and iv) Priority measures for increasing social resilience.
173. The complete proposal will look into the description of the base line, as well as the additionality regarding the Project's implementation.

#### **Component 1: Territorial adaptation and flood risk management policies, plans and instruments**

##### Baseline (without Project):

Currently, territorial planning and management instruments, as well as sectorial plans for basic infrastructure and services and the NPA management plans have different degrees of progress and implementation, lack of a relevant integration of future CC scenarios.

The region also lacks of unified and coordinated EWS and Disaster Risk Management instruments that include CC perspective.

Relevant local and regional institutions related to these areas (land management, services, legislation, among others) also present different capacities and knowledge regarding risk management and CCA. There are no common criteria, parameters or systems in the region for flood related impact, damage and loss assessment, especially on urban areas. the development and improvement of Disaster Risk Management instruments and EWS are fundamental for preventing and mitigating the negative social, economic and environmental effects from CC, particularly regarding floods.

No significant negative impacts were identified during the Concept Note development. Most possible negative impacts may derive from construction works and are related to: noise and dust generation during construction, waste and effluent generation, traffic and circulation interference, among others. In this sense, each construction work within the Project's framework will undergo and Environmental and Social Impact Assessment including Monitoring, Impacts Prevention and Mitigation, Waste Management and Contingencies Plans in accordance to local regulations and considering both AF and CAF Environmental and Social Policies. Also, an Environmental and Social management instrument will be developed for the whole Project's implementation and administration.

Regarding ESP Principles such as "Access and Equity", "Marginalized and Vulnerable Groups", "Gender Equity and Women's Empowerment", the Project was designed with a significant participation and inclusion approach. Several participation and validation instances have and will be undertaken. Also, a stakeholder's map and a socio-economic assessment has been developed in order to identify all vulnerable and marginalized people and include this aspect during the activities design, as described above (see social benefits section).

Regarding gender considerations, data will be discriminated regarding all consultative and participative instances. Also, gender approach will be considered in the communication, diffusion and awareness raising design as well as in the activities regarding labour reconversion, social risk perception, among others.

The Concept Note states that the project is not going to directly perform any resettlement of high flood risk communities, but the activities proposed in this Project will support previously resettled communities or ongoing resettlements in processes led and funded by both governments. These activities include securing public services and infrastructure for new resettlements, social vulnerability monitoring and social risk perception, recovery of vacant flood prone areas for preventing new informal occupation that may lead to further resettlements, for public use and as buffer zones, labour reconversion solutions for previously resettled people, communication, education and dissemination strategies, among others.

With AF funding (with Project)

Territorial and NPA planning and management plans as well as sectorial plans, will be reviewed and updated including CC and future scenarios perspective. They will be conferred a shared regional approach through knowledge and experiences exchange.

Updated EWS will be implemented, and coordination and communication channels will be generated in order to increase their efficiency and contribute to prevention measures and disaster management. Workshops and training will be implemented in order to generate capacities within the institutions to develop resilient and sustainable adaptation measures and regional solutions. Shared methodological guides will be developed for impact, damages and losses estimation and assessment, envisaging the possibility together and systematize the information regionally.

**Component 2 – Priority measures for increasing floodable cities’ resilience:**

Baseline (without Project):

An important portion of the land where the communities relocated as an effect of the floods use to inhabit remains vacant, leading therefore to potential informal relocation processes. Also, some cities present flood prone land very close to urban centres, which can be attractive for spontaneous or new informal settlements if alternative uses are not promoted.

Urban infrastructure (roads, services, etc.) is not adapted to new or future CC scenarios, making it mostly ineffective. Vulnerable communities do not have access to such services, which increases their vulnerability to extreme events. They have also more exposure to pollution and unhealthy conditions.

With AF funding (with Project)

The planned recovery of vacant land, not only will avoid informal occupation or re-occupation of high flood risk areas but will also provide citizens with new public spaces and the recovery of ecosystemic services that will contribute to CCA. The implementation of adapted infrastructure will ensure its availability and services access for the population. It will also reduce compensation and recuperation expenses for local governments.

Financial adaptation measures will significantly reduce the vulnerability of the cities, increasing the resilience of local communities.

**Component 3 – Priority measures for adaptive conservation of vulnerable coastal ecosystems:**

□ **Baseline (no Project):**

Currently, ecosystemic services, benefits and connectivity are not fully known nor are taken into account regarding CCA and peoples quality of life. Often, this leads to the adoption of inefficient or counterproductive measures that can exacerbate CCs effects or reduce the ecosystemic services (water regulation, coastal defence, etc.) and its resilience.

Productive activities, as well as infrastructure implementation has sometimes severely affected ecosystems, reducing their services and benefits towards CC.

□ **With AF funding (with Project)**

The identification and mapping of ecosystemic services and benefits will significantly contribute in land planning and management, risk reduction and management, resilience building and people's quality of life.

Additionally, the identification and assessment of non climatic drivers (erosion, soil sealing, deforestation), and the delivery of sustainable and ecosystem based solutions in order to recover ecosystems and their services and benefits, will considerably reduce flood risks and their negative effects.

**Component 4 - Priority measures for increasing social resilience:**

□ **Baseline (without Project):**

Currently, local governments lack collected, documented and systematized information on the communities' vulnerability conditions in order to identify priority and effective measures for its reduction.

Affected and relocated communities, families and institutions' vulnerability has increased and their resilience has decreased due to the impact on their economic and livelihood activities.

□ **With AF funding (with Project)**

Activities related to vulnerability analysis and monitoring will allow local governments to identify priorities and implement effective solutions for its reduction. Also, they will be able to assess these measures results and incorporate them to the lessons learnt for future replications.

Labour reconversion measures will reduce the communities' economic vulnerability and will increase the affected people and institutions resilience.

The communication and dissemination strategy will be based on the perception of risks related to CC, raise awareness on the importance of CCA, of preventive and mitigating measures. It will prioritize increasing communities ability to face CC effects and reducing their vulnerability.

## **L. Sustainability of the project outcomes**

174. The Project is aligned with national and subnational policies that have been strengthened over the last years and that offer an ideal opportunity for the development and implementation of local actions. Once the Project has progressed, these actions can feed back new strategic lines regarding those policies locally and nationally. Long term planning instruments that consider CC and future scenarios will be prioritized, contributing to the Project's sustainability.

175. Additionally, the incorporation of adaptation in subnational processes such as land management, promotes the consideration of locally-designed solutions and decision making with a long term preventive approach. Also government administration will be strengthened by the generation and inclusion of capacities in the CC field and flood management.
176. In this sense, the Project is based in national and local authorities responsible for local development and CCA. Local governments constitute key stakeholders for the Project's activities' implementations, but also regional governments, national organisms, academic institutions and CSO will be included. Institutional coordination is envisaged, and the creation of networks that will maintain the Project in the institutional agendas.
177. Regarding concrete actions, ecosystemic based adaptation measures are considered as the most resilient and, therefore, sustainable, as well as adapted infrastructure. Likewise, NPA strengthening is included in processes that already have budget allocation and maintenance staff, as well as community support which grant these solutions sustainability beyond AF's funding.
178. Financial measures such as revolving funds, insurances, labour reconversion, will contribute to the economic sustainability of ACC, especially in the mid and high risk areas of the vulnerable cities. Particularly, the revolving fund which is designed for assisting the flood affected communities, for housing and productive infrastructure adaptation, will be available for other affected people, with the subsidy return on behalf of the beneficiaries.
179. Finally, the communication strategy and plan, along with education related activities, will also contribute to results sustainability since they increase information, knowledge and awareness on CC, risk reduction, and resilience building. This strategy will also be designed with a gender approach in order to ensure women's access to relevant information.

**M. Provide an overview of the environmental and social impacts and risks identified as being relevant to the project / programme.**

130. A preliminary analysis on the Project’s impacts and risks regarding AF’s Environmental and Social Principles is presented bellow. A detailed impact assessment and mitigation plan will be developed during the Full Proposal development. (See Annex 6 for complementary information)

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
<i>Compliance with the Law</i>		<p>This is a main principle which applies to all projects.</p> <p>Some interventions included in components 2 and 3 may require specific environmental administrative authorizations. For example:</p> <p>Output 7. Vulnerable vacant land from resettlements has been recovered and re signified to prevent informal re occupation and Output 8. Technical assistance and sustainable urban and public services infrastructure have been implemented in new resettlements on secure land.</p> <p>For this, it is important that in phase of developing the full proposal the activities that need them start the processing of the permits, registries, licences, etc.</p>
<i>Access and Equity</i>		<p>As it is not defined the mechanism of identification of the beneficiaries in the concept phase during the full proposal development there should be a mechanism to define this.</p>

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
		For example Output 14. Assistance and labour reconversion strategies have been promoted for vulnerable population needs to present the mechanism of access to beneficiaries.
<i>Marginalized and Vulnerable Groups</i>	Vulnerable groups of the Project's implementation area are identified. Projects actions (vacant land re signification and labour reconversion) are designed in order to benefit such groups.	
<i>Human Rights</i>		This is a main principle which applies to all projects.  Eventhough both countries have signed the human Rights Declaration, thereis no protocol that implies how this will be monitor with the diferetn operational contractors. This has to be defined in the ESMP during the full proposal design.
<i>Gender Equity and Women's Empowerment</i>	The Project seeks to strengthen gender equity since women and men have different capacities and vulnerabilities. The Project will be an opportunity to improve knowledge regarding men and women's vulnerability in order to assess if there are significantly risk differences related to gender issues and find concrete solutions that support the breach reduction.  During the concept note development the project focused that both women and men 1) have equal opportunities to participate as per the AF gender policy; 2) receive comparable social and economic benefits; and 3) do not suffer disproportionate adverse effects during the development process.	

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
<i>Core Labour Rights</i>		<p>This is a main principle which applies to all projects.</p> <p>Some interventions included in components 2 and 3 may require specific operational contractors that have to comply with the International Labour Organization (ILO).</p> <p>For this reason during the concept note formulation the ESMP has not been developed and shall be done during the Full Proposal phase.</p>
<i>Indigenous Peoples</i>	<p>In the area of influence there are no indigenous people. For this reason. No risks or adverse impacts is envisaged.</p>	
<i>Involuntary Resettlement</i>	<p>The Project does not include activities that may lead to involuntary resettlements.</p> <p>None of the activities presented will or have a risk of resettlement.</p> <p>Resettlement policies in relation to flood risks in the rio Uruguay region in the last couple of decades have involved social participation and community base approaches, in the hypothetical case that an involuntary relocation risk takes place in relation to the Project, there are a group of existing mechanisms and procedures that apply in order to avoid it.</p> <p>Governments of Uruguay and Argentina have developed a very social mechanism for the needed resettlements.</p>	
<i>Protection of Natural</i>		<p>Project's objectives include ecosystem and NPA</p>

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
<i>Habitats</i>		<p>strengthening and vulnerability reduction. El Palmar and Esteros de Farrapos National Parks are included among other protected areas.</p> <p>The Projects activities within protected areas should consider specific regulations and should be evaluated by competent authorities.</p> <p>Output 10. Ecosystemic services and co benefits have been identified and assessed, including CCA and Uruguay river's ecosystems connectivity and Output 11. New ecosystem-based adaptation measures have been designed and implemented are related directly with this principle.</p> <p>However, as at the moment of the Concept Note, the areas of the intervention where not defined, it is not clear of possibility of risk.</p>
<i>Conservation of Biological Diversity</i>		<p>The Project's interventions will consider ecosystemic approaches in the NPA and land management plans, as well as new adaptation strategies bases on ecosystems.</p> <p>Output 10. Ecosystemic services and co benefits have been identified and assessed, including CCA and Uruguay river's ecosystems connectivity and Output 11. New ecosystem-based adaptation measures have been designed and implemented are related directly with this principle.</p> <p>However, as at the moment of the Concept Note, the possible species of the intervention where not defined, it is</p>

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
		not clear of possibility of risk.
<i>Climate Change</i>		<p>The project belongs to the “building materials” sector mentioned in the Guidance document for which a greenhouse gasses emission calculation is required.</p> <p>As at the moment of the Concept Note, the possible species of the intervention where not defined, it is not clear of possibility of risk.</p>
<i>Pollution Prevention and Resource Efficiency</i>		<p>Risk of designing and implementing the project in a way that does not meets applicable international standards for maximizing energy efficiency and minimizing material resource use, the production of wastes, and the release of pollutants.</p> <p>As at the moment of the Concept Note, the possible species of the intervention where not defined, it is not clear of possibility of risk.</p>
<i>Public Health</i>		As there are not defined the activities or designs of the project, the screening of public health was not able to be done.
<i>Physical and Cultural Heritage</i>		<p>Risk of a project designed and implemented in a way that may cause damage or harm any cultural sites.</p> <p>The project will try to protect cultural sites that are in danger because of the river erosion caused by the increment of the river level and inundations. However, as at the moment of</p>

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
		the concept design was not clear the detail and type of measure that is going to be used, at this stage this causes risk to the principle.
<i>Lands and Soil Conservation</i>	<p>The Project has been design to strengthen this kind of soil, with envisaged activities for preventing erosion progress in the coast of Uruguay river.</p> <p>The Project itself has the potential to reduce the risk of landslides caused by fragile soils in the river.</p> <p>The Project per se, aims to reduce the risk of soil erosion in Uruguay's river by implementing green infrastructure.</p> <p>The Project will comply with the regulations and requirements to avoid any type of problem related to the construction of gabions if needed.</p>	

131. As a result of this analysis, minor risks and environmental and social impacts have been identified. Principle 1, Compliance with the Law will require close follow up during the Project's implementation. In this sense it is classified as category C according to the established ESP. (See [Annex 7](#))

## PART III: IMPLEMENTATION ARRANGEMENTS

### A. Arrangements for project that has been considered.

#### I- Organizations involved in the Project:

##### i) Regional/Bi national Level:

- Project's Bi-National steering Committee (BNC)
- Salto Grande Mixed Technical Commission (CTMSG)
- Uruguay river Administrative Commission (CARU)\*

\*Regarding CARU's role in the Projects implementation, contact has been made among both Ministries and CARU's respective national delegations. Also, CARU members have participated in the consultation workshops. Nevertheless, CARU's specific role has not been determined formally at this stage, which will be formally addressed in a formal joint decision between CARU and the Projects proponents for the Full Proposal. One of the considered roles is clearly related to the hydrological models aspects. The Project has been forwarded to CARU by note 245/17 and has been presented to the water sub commission on Report N°9 with the instruction to contact the Project's responsible in order to deliver contributions to the Project.

##### ii) National Level:

- Argentina's Ministry of Environment and Sustainable Development (MAyDS).
- Uruguay's Ministry of Housing, Land Planning and Environment (MVOTMA).

The framework document for this proposal is the "*Memorandum of understanding for environmental and sustainable development cooperation*", subscribe on May 4th, 2017 between MVOTMA and MAyDS. This document sets as cooperation priorities climate change, coastal areas, NPAs and biodiversity conservation among both Ministries.

\*\*Argentina's Ministry of Foreign Affairs and Cult, General Directorate for the Environment, and Uruguay's Ministry of Foreign Affairs, Environment Direction, could be included in the Project's governance model, this definition will be clearly identified in the Full Proposal.

##### iii) Sub national Level: Provincial/Departmental and Municipal

- For Uruguay:
  - Departmental governments of Artigas, Salto, Paysandú and Río Negro.

□ For Argentina:

Provincial Government of Entre Ríos.

Municipal (local) Governments of Colón, Concordia, Gualeguaychú, Federación, Islas del Ibicuy and Concepción del Uruguay.

## **II- Expected Coordination Guide/System**

A Bi-National steering Committee (BNC) will be established for the Project, with executive nature constituted by one (1) representative from the Argentinean Government through the MAYDS, one (1) representative from the Uruguayan Government through the (MVOTMA), and one (1) representative of CAF.

\*\* Argentina's Ministry of Foreign Affairs and Cult, General Directorate for the Environment, and Uruguay's Ministry of Foreign Affairs, Environment Direction, could also join the BNC.

The BNC will be maximum authority of the Project, where decisions are taken by consensus and annual operative plans, procurement plans, etc. will be approved by consensus.

The BNC will invite representatives of National Executing Units and from the Regional Office, who will have the roll of informing to the members of the CDB on the advances and proposals regarding the Project's activities.

## **III- Operative Structure:**

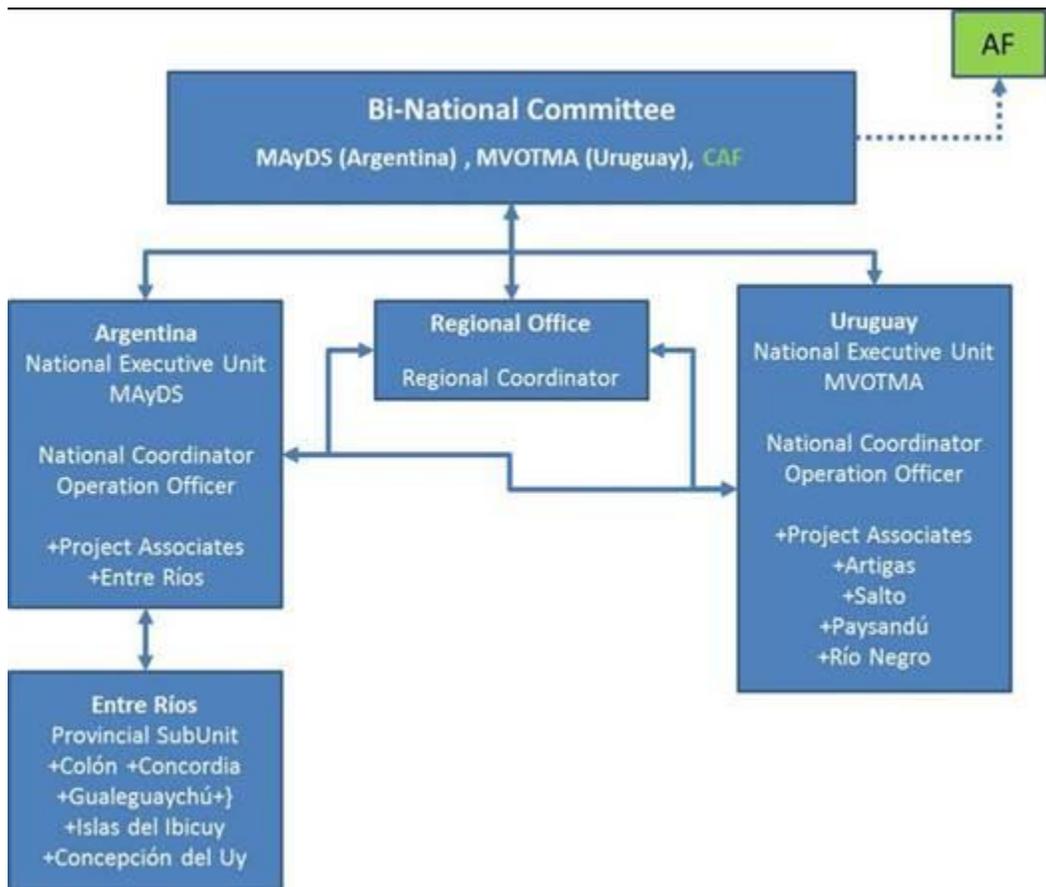
A Regional Office (RO) will be constituted for the implementation of binational Project's outputs and activities. It will submit the annual plans for the bi national outputs to the BNC for its approval. The RO will be directed by a Regional Coordinator who should interact with CAF and will articulate activities with the National Coordinators. The Regional Coordinator will be designated by the Project's BNC.

Both MVOTMA and MAYDS will create a national executive unit (NEU) within their structure.

Each NEU's coordination will be under a National Coordinator (one for Uruguay and one for Argentina) that will report to the BNC and that will coordinate with the Regional Coordinator. National coordinators will be selected by each country. Argentina will also create a provincial subunit based in Entre Rios, which will be coordinated by the Argentine National Coordinator.

Each NEU's coordination will be supported a National Operational Officer (one for Uruguay and one for Argentina) that will report to the National Coordinator and will interact with CAF for execution and administrative matters, and both National Operational Officers will be selected by the BNC.

CAF will receive the funds through their Special Funds Direction (DAFE). Each country will receive their funds through each CAF's country office who will determine the disbursement mechanisms.



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

Identified risks	Type	Risk appraisal	Mitigation measures
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Identified risks	Type	Risk appraisal	Mitigation measures
Changes in national and/or departmental governments may lead to lack of support of the Project's activities.	Political	Low	Project's actions are supported in the Climate Change National Policies, developed jointly with political and social stakeholders. Besides, there is a strong institutionalization regarding CC issues in the GNCC and SNRCC's framework, in which national and subnational governments are represented.
Lack of compromise on behalf of local communities may lead in the intervention's failure.	Social	Low	The Community Relations Plan will be developed during the introduction phase, but it is known that governments have been continuously working with affected groups since floods are their main concern. Community stakeholders have been consulted from the first stages, including them in the Project's implementation.
Insufficient financial resources to implement Project's activities.	Financial	Low	A detailed budget will be developed during the Full Proposal preparation. Project's implementation will be supervised in order to identify promptly financial breaches.

**C. Describe the measures for environmental and social risk management, in line with the Environmental and Social Policy of the Adaptation Fund.**

132. This section will be developed during the Full Proposal preparation.

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

133. Project's M&E Plan will be undertaken according to CAF's standard requirements, as agreed with the AF. A preliminary guideline is listed below. Annual Progress Reports will be developed with the inclusion of the AF's Results Tracker.

134. Independent midterm and terminal assessments will be developed in order to assess the Project's progress and lessons learnt.

135. M&E Plan's budget will be developed during the Full Proposal preparation

Type of M&E activity	Responsible parties	Budget USD (does not include Project team)	Frequency
Project's direct monitoring and quality verification including progress and financial reports, revisions, technical assistance and risk management	<ul style="list-style-type: none"> <li>• National Regional Coordinators</li> <li>• BNC</li> <li>• CAF</li> </ul>	Team's support costs were included in the Project's execution	Quarterly, biannual and annual as required
Assessments (Independent, midterm and terminal)	<ul style="list-style-type: none"> <li>• National Regional Coordinators</li> <li>• CAF</li> <li>• BNC</li> <li>• Independent consultants.</li> </ul>	50.000	Midterm and terminal
Audit	<ul style="list-style-type: none"> <li>• National Regional Coordinators</li> <li>• BNC</li> <li>• CAF</li> </ul>	40.000	Annual at year's end

Type of M&E activity	Responsible parties	Budget USD (does not include Project team)	Frequency
Induction meeting, field missions, CDB meetings	<ul style="list-style-type: none"> <li>• National and Regional Coordinators</li> <li>• BNC</li> <li>• CAF</li> </ul>	50.000	Induction meetings within the first two months and bi annual. Other meetings and field missions when required

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

136. This section will be developed during Full Proposal preparation

**E. Demonstrate how the project / programme aligns with the Results Framework of the Adaptation Fund**

Project Objective(s) <sup>3</sup>	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
<p>GENERAL OBJECTIVE: Build resilience in coastal vulnerable cities and ecosystems of the Uruguay river by the development of instruments, tools and experiences for adaptation planning and implementation as well as managing climate change and variability impacts and risks.</p>	<p>Will be developed for Full Proposal</p>	<p>1: Exposure to climate risks reduced</p>		

<sup>3</sup> The AF used OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply

Project Objective(s) <sup>3</sup>	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
<p><b>SPECIFIC OBJECTIVES</b></p> <p>1. To reduce vulnerability conditions and contribute to build CC and variability resilience in vulnerable coastal communities and ecosystems from Uruguay river, including adaptation measures based on communities and ecosystems, while focusing on human rights, gender and generations.</p>	<p>Will be developed for Full Proposal</p>	<p><b>1:</b> Exposure to climate risks reduced  <b>3:</b> Strengthening of CCA awareness, ownership and local climatic risk reduction  <b>4:</b> Increase of adaptation capacities of relevant basic public services and infrastructure  <b>5:</b> Increase in the ecosystems resilience regarding CC response and variability induced stress</p>	<p>1. Relevant information regarding threats and risks was developed and disseminated among stakeholders in due time  3.1. Percentage of informed population on adverse CC impact forecast and adequate response measures  4.1. Adapted infrastructure  5. Strengthened or conserved environmental services and natural resources regarding CC and climatic variability</p>	
<p>2. Promote institutional strengthening by the inclusion of CC mid and long term future scenarios in land management public policies, plans and programs for the vulnerable cities and ecosystems</p>	<p>Will be developed for Full Proposal</p>	<p><b>2:</b> Strengthened institutional capacities for CC risk reduction regarding damages and losses  7. Improved regulations and policies to promote and strengthen resilience measures</p>	<p>2. Increase of the governments' officers capacities to respond and mitigate climatic extreme events impacts.  7. CC priorities have been included into the national development strategies</p>	
<p>3. Promote an integrated</p>	<p>Will be developed for Full Proposal</p>	<p><b>2:</b> Strengthened institutional capacities for CC risk</p>	<p>2. Increase of the governments' officers</p>	

Project Objective(s) <sup>3</sup>	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
climatic risk management in the Project's cities and ecosystems fostering the implementation of EWS.		reduction regarding damages and losses	capacities to respond and mitigate climatic extreme events impacts.	
4. Reduce cities vulnerability by implementing sustainable adapted infrastructure	Will be developed for Full Proposal	4. Increase of adaptation capacities of relevant basic public services and infrastructure	4.1. Adapted infrastructure	
5. Promote CCA through exchanges in urban, ecosystemic and socio cultural best practices and experiences and knowledge management.	Will be developed for Full Proposal	3: Strengthening of CCA awareness, ownership and local climatic risk reduction	3.2 Percentage of population implementing appropriate adaptation responses	

**F. Include a detailed budget with budget notes, broken down by country as applicable, a budget on the Implementing Entity management fee use, and an explanation and a breakdown of the execution costs.**

137. This section will be developed during Full Proposal preparation

**G. Include a disbursement schedule with time-bound milestones.**

138. This section will be developed during Full Proposal preparation

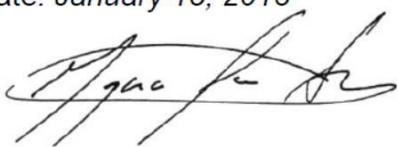
## PART IV: ENDORSEMENT BY GOVERNMENTS AND CERTIFICATION BY THE IMPLEMENTING ENTITY

### A. Record of endorsement on behalf of the government<sup>7</sup>

*Provide the name and position of the government official and indicate date of endorsement for each country participating in the proposed project / programme. Add more lines as necessary. The endorsement letters should be attached as an annex to the project/programme proposal. Please attach the endorsement letters with this template; add as many participating governments if a regional project/programme:*

*Endorsement by Ministry of Environment and Sustainable Development - Argentina*  
*Endorsement by Ministry of Housing, Land Planning and Environment - Uruguay*

 <p style="margin-top: 20px;"><i>Lucas Di Pietro Paolo</i>  <i>Adaptation to Climate Change Director</i>  <i>Ministry of Environment and Sustainable Development - Argentina</i></p>	<p>Date <i>January 15, 2018</i></p>
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<p><i>Ignacio Lorenzo</i>  <i>Director of Climate Change</i>  <i>Ministry of Housing, Land Planning and Environment</i>  <i>Uruguay</i></p>	<p>Date: <i>January 15, 2018</i></p> 
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<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.

## 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 the "**Regional Project Climate change adaptation in vulnerable coastal cities and ecosystems of the Uruguay River (Argentina and Oriental Republic of Uruguay)**" proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans of Argentina and the Oriental Republic of Uruguay and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.



*Ligia Castro de Doens*  
Implementing Entity Coordinator

Date: *January 15 2018*

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lcastro@caf.com

Project Contact Person: Carolina Cortés

Tel. And Email: +59323988437 – acortes@caf.com

## **ANNEXES:**

- Annex 1:Acronyms and abbreviations
- Annex 2:Consulted bibliography
- Annex 3:Maps
- Annex 4:Systematization of the consultation process July 2017
- Annex 5:Systematization of the consultation process December 2017
- Annex 6:Social and Environmental Risks Screening and Risk Identification
- Annex 7: Screening matrix to verify compliance with the Adaptation Fund's Environmental and Social Policy
- Annex 8:Stakeholder Mapping and Socio-Economic assessment of cities, Gender and vulnerable groups
- Annex 9:Request for Project Formulation