



## ADAPTATION FUND

# PRE-CONCEPT FOR A REGIONAL PROJECT/PROGRAMME

## PART I: PROJECT/PROGRAMME INFORMATION

Title of Project/Programme:	Reducing climate vulnerability and flood risk in coastal urban and semi urban areas in cities in Latin America
Countries:	Chile and Ecuador
Thematic Focal Area <sup>1</sup> :	Disaster risk reduction and early warning systems
Type of Implementing Entity:	Regional Implementing Entity (RIE)
Implementing Entity:	CAF, Development bank of Latin America
Executing Entities:	Ministry of the Environment (Chile), Ministry of the Environment (Ecuador)
Amount of Financing Requested:	13.910.400 (in U.S Dollars Equivalent)

**Project / Programme Background and Context:** Latin America (LA) is the most urbanized region in the world, with 80% (UN Habitat, 2012) of its almost 600 million people living in cities, and with 111 million people living in informal settlements, in conditions accentuated by poverty and inequality that make them highly vulnerable to disasters. Many of the cities in the LA region are experiencing rapid growth and frequently without any planning (Planet of Cities, 2015), often located on the coasts, in ecosystems that experience quickly climate change's adverse effects (IPCC, 2007)). This proposed project focuses on reducing vulnerability in the face of flooding and landslides in three (3) urban coastal settings in Latin America, by supporting specific adaptation actions and strengthening early warning systems and drawing lessons and experience which will be useful to other coastal cities.

The urban settings are Antofagasta and Taltal in Chile, and Esmeraldas in Ecuador. These cities are highly vulnerable to flooding and mass movements caused by intense rainfall associated with El Niño and extreme weather events. It is probable that with climate change these events will become more frequent and intense, therefore increasing even more the threat to human population and private and public infrastructure (e.g., water and sanitation). Antofagasta is Chile's fifth most populated city (ca., 390.000 inhabitants) and Taltal is a small coastal village (ca., 10.322 inhabitants) (estimate 2014, National Institute of Statistics, INE, for its acronym in Spanish) located about 195 km south of Antofagasta. Both sites are located in the coastal plain of the Atacama Desert, the climate is dry with very low rainfall (about 1,7 mm/year). However, they have been subject to intense mudflows, the strongest recorded was in 1991 and was caused by unexpected and unusual heavy rain (recorded rainfall about 42 mm). The balance was 92 dead and 16 missing persons and about USD 70 million in losses. The most recent mudflow occurred in march 2015 and was related to the development phase of the current 2015/2016 El Niño. According to a study done by the National Emergency Bureau of the Ministry of the Interior and Public Security of Chile (ONEMI, 2015), there are records of 21 torrential rain events that caused mudflows in the cities of Antofagasta and Taltal. Alluvial episodes in the coastal area of northern Chile coincided with the development phase of moderate to strong El Niño events (Vargas et al., 2000). Esmeraldas has a population of about 174,125 inhabitants, and has severe problems of un-planned urban expansion and deficient public services and infrastructure. The city is located in a tropical and humid area (average rainfall about 738 mm/year), at the mouth of the Esmeraldas river, and is highly vulnerable to flooding, mudflows and landslides. The main threats related to climate change are (i) increased sea level – it is estimated that by 2100 between 3% and 6% of the city will be permanently flooded --, and (ii) stronger and more frequent El Niño (torrential rain and flooding) and La Niña (drought) conditions. In January 2016, heavy rain, related to the current El Niño event, caused landslides, river overflow and severe flooding.

**Table 1.** General Vision: Number disaster related to the climate in EC & CH, and economic and human impacts 1980 - 2013.

COUNTRY	# DISASTERS	TOTAL ECONOMIC LOSS (USD 1000s)	AVERAGE YEARLY LOSS (AS A % OF GDP)	# FATALITIES	# PERSONS AFFECTED	AVERAGE YEARLY # PERSONS AFFECTED (PER 1000 INHAB)
Chile	30	2317934	0.034	653	1110352	2.63
Ecuador	30	1983881	0.095	1066	915104	2.42

Source: Vulnerability and Adaptation to Climate Change Index in the Latin American and Caribbean Region, elaborated for CAF by Maplecroft (2014). <http://scioteca.caf.com/handle/123456789/509>

Table 1 shows the similarities between Chile and Ecuador regarding the number of disasters related to the climate in the period covering 1980 to 2013, likewise, it can be noted that, although there are differences regarding incomes and gross domestic product (GDP) in both countries, on average, the yearly number of affected persons due to said disasters is very similar: **Chile 2.63% and Ecuador 2.42%**.

**Table 2.** Vulnerability Index and its components

CITY	VULNERABILITY INDEX	EXPOSURE INDEX	SENSITIVITY	ADAPTIVE CAPACITY INDEX
Antofagasta	8.48	9.31	5.76	9.40
Esmeraldas	1.94	3.61	2.34	4.44

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

According to the Vulnerability and Adaptation to Climate Change Index in the Latin American and Caribbean Region (CAF/Maplecroft 2014), on a scale of 1 to 10 (the low end points toward extreme vulnerability, and the high end to low vulnerability), Esmeraldas presents a vulnerability index of 1.94 (extreme). The vulnerability index for the city of Antofagasta placed at 8.48. No data for Taltal is recorded, which opens an opportunity for coastal cities to share experiences in order to increase their resilience to the adverse effects of climate change within the framework of this project. It is evident that the cities in Chile demonstrate less vulnerability, and this is in part due to the fact that adaptive capacity indices are influenced by the GDP levels (in 2012, Chile had the highest per capita GDP in Latin America and Antofagasta has Chile's highest per capita income). In contrast, Esmeraldas has a much lower per capita income, about 57% of the population is poor by unsatisfied basic needs, and the municipality has limited financial resources. Nonetheless, the adaptive capacity is composed of diverse elements related to institutional capacity, technical capacity, and natural resources security.

For CAF, coordinating a project that requires the reduction of vulnerability in coastal urban centres defined by diverse conditions and heterogeneous realities is a challenge, as well as an opportunity to identify and analyse the variables that ought to be adjusted for the success of the measures to be implemented, which goes far beyond simply having the necessary financial resources, and this is demonstrated when differences in the vulnerability indices are observed in the data but similarities also for being small and mid-sized coastal cities, exposed to similar risks and having similar management options. On the other hand, the connection with initiatives in progress, such as the CAF's Cities with a Future, will permit this linkage for continuity in the medium and long term. The proposed project will document and disseminate key learnings on mainstreaming and implementing risk-based approach to adaptation in coastal cities with three different social and economic contexts. This in turn, will be useful to other coastal cities of Latin-America.

**Project / Programme Objectives: To reduce vulnerability to climate-related flooding in three coastal cities by mainstreaming a risk-based approach to adaptation, building collaboration and networking, and developing a culture of adaptation.** The project strategy is to generate learnings on risk-based adaptation through on-the-ground implementation of measures in three social and economic scenarios (component 1), to strengthen human and social capitals to advance towards a culture of adaptation (component 2), and finally to build a community of learning among the stakeholders of the three coastal cities and to distil and disseminate lessons to the region (component 3).

**Component 1. Priority actions to increase resilience. Objective:** To increase resiliency to climate-related floods, mudflows and landslides by mainstreaming a risk-based approach to adaptation. The three cities have development and emergency plans and have identified key actions to protect their citizens and infrastructure. However, risk-based adaptation has not been fully integrated into local planning, businesses and society at large. In addition to infrastructure measures (e.g., flood defences), there is a need to integrate other measures like rebuilding / restoring natural ecosystems (e.g., mangrove areas in Esmeraldas), enhance citizen's awareness to risk, or improve budgetary allocations to adaptation-related activities. This component will focus on designing and implementing adaptation measures (e.g., flood control works, early warning, and emergency response) within the common context of a risk-based approach to adaptation. Four lines of work will be developed, (i) non- structural measures, (ii) infrastructure measures, (iii) early warning systems, and (iv) emergency response. Indicative actions are presented below; details will be developed during project preparation: landslide and flood control works in prioritized micro-basins or protection of potable water network, update master plans, green infrastructure actions (e.g., riverside reforestation, corridors and parks) and rebuilding / restoring natural ecosystems., dDesign and implementation of climate monitoring and early warning systems (e.g., rainfall and river level monitoring stations coupled with warning messages through SMS and local radio stations), improve signalling of evacuation routes and safe areas, strengthen plans and procedures for large scale evacuations. Key stakeholders of the three sites will share their learnings and best practices, with emphasis on the design and implementation of adaptation measures which are appropriate to the local social and economic conditions.

**Component 2. Strengthen capacities for adaptation. Objective:** To improve local capacities to implement risk-based adaptation measures in the coastal zone. This component will focus on providing common tools to technical staff in the three cities and to raise awareness and understanding of local population and government personnel responsible for adaptation measures. Training events will be used to provide knowledge and tools to local governments and authorities to design and implement adaptation measures and actions to address emergencies and expedite post-emergency rehabilitation and reconstruction. Training will provide a common base for practitioners in the three cities and will support implementation of component 1 of the project. A trainer of trainers' approach will be used, to facilitate that trainees will be able to train others. Training materials and guidelines will be posted on-line to facilitate their use and dissemination. Training events will include in-person workshops and web-based seminars. To raise awareness, public communication and education strategies will be prepared and implemented. This will include the adaptation and implementation of the "narrators" experience developed in Japan. Narrators is a tool to maintain a living memory of past events and to transfer knowledge to new generations. It was developed and applied in the city of Nishinomiya after the devastating 1995 Great Hanshin Earthquake. A pilot of the narrators' methodology was tested in Valdivia (Chile) between 2012 and 2014. It is foreseen that the narrators' methodology will build on the rich oral tradition of coastal communities.

**Component 3. ICTs and partnership between coastal cities in Latin America. Objective:** To facilitate learning and collaboration on risk-based adaptation in coastal cities. This component will provide the means to document and share lessons and experience and to facilitate stakeholders' collaboration on each site and among the three sites. A regional on-line platform will be developed to share experiences and learnings. This will be a combination of a website to host and facilitate access to information, blogs to document experiences, micro-videos (probably a YouTube channel), and web-based collaboration tools. At site level, networking and collaboration will be facilitated to contribute to the construction of social capital. The aim will be that key stakeholders get in contact and develop communication channels and constructive relationships. In addition, study visits to each site will allow for the exchange of experiences and strengthening collaboration among sites. Finally, an integration committee will be formed to oversee and guide implementation through a learning approach. CAF, in its role as a development bank, will orient key participating stakeholders for accessing diverse sources of financing to support the implementation of risk-based adaptation measures.

### Project / Programme Components and Financing:

Project Components	Expected Outcomes	Expected Outputs	Countries	(US\$)
<b>Component 1. Priority Actions to increase resilience.</b>				<b>10,230,000<sup>2,3</sup></b>
<b>SC 1.1.</b> Non-structural measures	Enhanced plans and green infrastructure reduces vulnerability to floods, landslides and mudflows in three coastal cities	<ul style="list-style-type: none"> <li>- Green infrastructure plans</li> <li>- Updated Rainwater Master Plan incorporating micro-basins in Antofagasta and Taltal Riverside reforestation pilots</li> <li>- Mangrove area protection and expansion (Esmeraldas)</li> </ul>	Chile Ecuador	1,500,000 1,000,000
<b>SC 1.2.</b> Infrastructure measures	Reduced vulnerability to floods, landslides and mudflows in three coastal cities (ca., 574.000 people protected)	<ul style="list-style-type: none"> <li>- Construction of works (rainwater channels, control works), in prioritized micro-basins.</li> <li>- Acquisition of software for analysis, design and prioritization (for example ArcGIS, Aquaveo WMS or Mike She and/or flood).</li> <li>- Mitigation works for landslide control.</li> </ul>	Chile Ecuador	3,938,000 2,292,000
<b>SC 1.3.</b> Early Climate Warning System	Improved climate monitoring and means to alert the local population	<ul style="list-style-type: none"> <li>- Installation of an Early Climate Warning System (emergency Room) and means to alert residents in case of emergency (e.g., sirens, SMS, radio broadcast).</li> <li>- Increased number of monitoring stations with broaden monitoring parameters.</li> <li>- Meteorological radar system (Chile)</li> <li>- River level monitoring network (Ec.)</li> <li>- Implement online platform for meteorological data.</li> </ul>	Chile Ecuador	600,000 400,000
<b>SC 1.4.</b> Emergency response	Improved means to respond to floods, landslides and mudflows	<ul style="list-style-type: none"> <li>- Strengthened emergency committees (inter-agency coordination system).</li> <li>- Signal evacuation routes</li> <li>- Flood evacuation maps</li> </ul>	Chile Ecuador	350,000 150,000
<b>Component 2. Strengthen capacities for adaptation.</b>			Chile, Ecuador	<b>1,300,000</b>
<b>SC 2.1.</b> Capacity strengthening-local government.	Local governments with improved capacity to design and implement adaptation measures	- Course plans and materials for risk-based adaptation.	Chile and Ecuador	200,000
<b>SC 2.1.</b> Capacity strengthening of local residents	Local population and government personnel with increased awareness of climate-related risks (floods, landslides,	- Three public communication and education strategies designed and implemented.	Chile Ecuador	350,000 150,000
		- Narrators experience in three cities.	Chile Ecuador	400,000 200,000

<sup>2</sup> The final number and type of work will depend on the results of the studies and costs associated to the built of the works required.

<sup>3</sup> Of the total, between 10-15% are considered for studies, the rest for mitigation projects for flood control.

Project Components	Expected Outcomes	Expected Outputs	Countries	(US\$)
	mudflows)			
<b>Component 3. ICTs and partnership between coastal cities in Latin America.</b>			Chile, Ecuador	<b>1,000,000</b>
<b>SC 3.1.</b> ICTs and partnership between coastal cities in LA.	Learnings are documented and shared.	<ul style="list-style-type: none"> <li>- Design/implement a regional on-line platform</li> <li>- Case study documents of key learnings and best practice</li> <li>- Training / workshops through web-based collaboration tools</li> <li>- Site level events</li> </ul>	Chile, Ecuador	750,000
<b>SC 3.2.</b> Study visits to demonstration sites	Guarantee the direct contact and learning from the implementation processes.	Implement a series of study visits to each site, including participation of other interested countries.	Chile Ecuador; Visitors: LA	150,000
<b>SC 3.3.</b> Integration Committee	Guarantee the exchange of experiences and lessons learned among project executors	1 Annual report of evaluation, feedback and lessons learned from each project	Chile, Ecuador	100,000
4. Project/ Programme Execution Cost				<b>350,000</b>
5. Total Project/ Programme Cost				<b>12,880,000</b>
6. Project/ Programme Cycle Management Fee charged by the Implementing Entity (8%)				<b>1,030,400</b>
<b>Amount of Financing Requested</b>				<b>13.910.400</b>
<b>Project Duration: 5 years (60 months)</b>				

## PART II: PROJECT / PROGRAMME JUSTIFICATION

**The project / programme components, particularly focusing on the concrete adaptation activities, how these activities would contribute to climate resilience, and how they would build added value through the regional approach, compared to implementing similar activities in each country individually.** Chile and Ecuador coincided on the advantage of joining efforts simultaneously towards shared, common, articulated approaches in technical, institutional and management issues in the frame of this Project. Coincidences were found on the development and use of joint approaches, exchange of experiences, capacity building and cooperation mechanisms in subjects that go beyond political boundaries, and that call for local solutions to seek from wider integrated approaches. Among priority themes brought up the following were found: priorities measures to increase the resilience in similar coastal cities and reinforcement of institutional capacities.

**How the project would promote new and innovative solutions to climate change adaptation, such as new approaches, technologies and mechanisms.** An innovative factor stands out in component 2 through the adaptation and implementation of pilots of the Japanese “narrators” experience in Antofagasta, Esmeraldas, and Taltal. In 2013, a delegation of Japanese experts comprised by the NGO LEAF, Dr. Takahashi Manabu (geologist) and the University of Ritsumeikan in Kyoto, shared with relevant stakeholders in Valdivia (Chile) the “narrators” project’s experiences. Through a workshop, the Japanese delegation emphasized how important it is that local communities come to know in a topographical sense the areas they live in, because “knowing your territory means saving your life”. The principal motor behind the “narrators” project are elderly residents who are selected to recount and describe where they live and to tell about lessons learned from disaster events. Another innovative factor is the use of information and communications technology to support collaboration and knowledge dissemination. This platform could serve as a tool for dissemination and replication of experiences, for defining agreements and synergies among key stakeholders in various cities in Latin America, serving at the same time as a space for learning about opportunities that both CAF and other international funds offer both in matters of financing as well as climate change.

**The cost-effectiveness of the proposed project / programme, explaining how the regional approach would support cost-effectiveness.** Cost-effectiveness analysis encompasses two alternatives: 1) that the adaptation measures be carried out in cities in Chile and Ecuador, aligned in this regional project or 2) that isolated projects be executed in cities in Latin America. The effectiveness of the execution of adaptation measures under collaboration agreements and experience exchange between different cities in the region (Alternative 1), the learning curve will reflect that the communities and institutions will learn much more and more quickly that in a scenario of isolated adaptation projects (Alternative 2). On the other hand, CAF’s coaching, a financial institution with more than 40 years in the region, will provide the opportunity to offer within Alternative 1 a channel for communication that will drive even more the collaboration and knowledge of the different realities and similarities which as regards vulnerability present themselves in cities in Latin America, as well as knowledge of the financing opportunities which can be accessed.

**How the project / programme would be consistent with national or sub-national sustainable development strategies, including, where appropriate, national or sub-national development plans, poverty reduction strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist. If you wish and if applicable, you can also refer to regional plans and strategies where they exist.** The executing entities are

the primary environmental authorities on the national level in Chile and Ecuador. For all cities, the project alignment with several plans and programs at the regional and local levels have been verified by the responsible authorities, such as Chile and Ecuador's National Adaptation to Climate Change Plans, National Climate Change Strategy 2012–2025 for Ecuador; Sectorial Vision of the Land Use and Development Plan for the Esmeraldas Canton from the Environmental System to 2022, the Chile's National Climate Change Action Plan 2016-2021 (being elaborated) and Chile's Strategic Plan for Disaster Risk Management.

**The learning and knowledge management component to capture and disseminate lessons learned.** The project will develop communication and awareness actions targeting at-risk communities, concerning risk management in the project's framework and the sustainability of the project's results. The integration committee's role has already been described in the capture and outreach dynamic of the lessons learned.

**The consultative process, planned to be undertaken during project preparation, with particular reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy of the Adaptation Fund.** CAF will carry out a Preliminary Environmental and Social Assessment and from this assessment a specific S&E Management Plan will be prepared for the activities in each city. The Management Plan will include guidelines for the consultation, for the relationship with vulnerable groups and for gender issues and for the environmental aspects that are merited. Compliance will be obligatory and will be monitored and supervised by CAF (These guidelines will take into account the demands of the AF's E&S Policy, and CAF's E&S Safeguards).

**How the sustainability of the project/programme outcomes would be taken into account when designing the project / programme.)** The sustainability of the outcomes will be guaranteed by the commitment of the local authorities, the improved awareness around disaster risk and adaptation, which is an integral component of the project. During the project's preparation process, holding meetings is contemplated in each municipality considered in the initiative, in order to present the project to municipal authorities. Also, workshops will be held with the community to present the project. Likewise, a committee represented by involved institutions and the community will be formed, in which two representative institutions from Chile and Ecuador, respectively, will act as coordinators. Representatives from other institutions and from the community will be collaborators and advisors. The committee's main objective will be to carry out the follow-up of the project's implementation. The consultation and involvement of the vulnerable communities will be done through meetings and visits in which data will be collected by interviews to learn about the residents' perception of the project, as well to find out their needs. The "Narrators" program will be key for direct contact with the community.

**How the project would provide economic, environmental and social (E&S) benefits:** In each city, the project will provide to the most vulnerable communities different economic, social and environmental benefits. In Esmeraldas, the studies for the relocation of families at risk will allow tools to reduce their risk exposure and benefit from a better quality of life. The studies will include the E&S Policy subject to related national legislation and, in accordance with the E&S Policy of the Adaptation Fund.

**How would the project meet relevant national technical standards, and how would it comply with the Environmental and Social Policy of the Adaptation Fund?** Contained in the answers to the previous item and the item referring to the consultation process. The implementing environmental authorities of each of the developments in each city will ensure compliance with the standards and regulations, to be verified by CAF.

**Duplication of project / programme with other funding sources:** In none of cases is there any duplication of funding sources.

**Justification for requested funding based on reasoning of the total cost of adaptation:** The investments proposed in this project, given their focus on adaptation actions, can contribute both to reducing the vulnerability of communities at risk, as well as to positioning in the planning and management schemes the value and prioritization of adaptive management for balanced development. Such investments have an opportunity value, as such implementation under other financing frameworks may have to wait one or more administrative cycles (4 to 8 years), until its promoters succeed among their local authorities. Strengthening the capacities of the strategically positioned authorities is a way to boost the development of adaptation activities.

**The environmental and social impacts and risks identified as being relevant to the project/programme:** The project has been categorized as B with respect to potential E&S impacts that it could generate. In the subsequent development of the proposal this will formally confirmed and the possible existence of pertinent E&S risks from project activities will be evaluated. At present, it is expected that there may be some risks in the following aspects: 1. Institutional and political instability; 2. Project acceptance on the part of the population.

### **PART III: IMPLEMENTATION ARRANGEMENTS**

Both, Chile and Ecuador, have considered the local governments as well as the institutions to be relevant in the formulation of the project's current initial concept. Considering this a regional initiative, the NIE from Chile wasn't included. During the implementation phase, each country will proceed based on the structures established as committees and national risk management authorities. The creation of a committee with the participation of the indicated entities from each country is proposed with the main objective being that of monitoring the project's implementation.

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

**A. Record of endorsement on behalf of the government<sup>4</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 annexes to the project/programme proposal.

<p><i>Gladys Santis, Adaptation Officer, Climate Change Office, Ministry of Environment of Chile</i></p>	<p>Date: <i>July 27, 2015</i> Reviewed on <i>January 8, 2016</i></p>
<p><i>Daniel Vicente Ortega Pacheco, Minister, Ministry of Environment of Ecuador</i></p>	<p>Date: <i>July, 24, 2015</i> Reviewed on <i>January 8, 2016</i></p>

**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

<p>I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans (Regional Development Strategy of the Metropolitan Region of Santiago 2012-2021 (Chile); Regional Strategy for the Conservation of Biodiversity RMS 2015-20 (Chile); Plan for Adaptation to Climate Change within Biodiversity 2014 (Chile); National Plan for Good Living 2013-2017 (Ecuador); National Climate Change Strategy 2012-2025 (Ecuador) and subject to the approval by the Adaptation Fund Board, <u>commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund</u> and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.</p>	
<p><i>Ligia Castro</i> <i>Dirección de Ambiente y Cambio Climático</i> Implementing Entity Coordinator</p>	
<p>Date: <i>January 8, 2016</i></p>	<p>Tel. and email: <a href="mailto:lcastro@caf.com">lcastro@caf.com</a> <i>+57.1.743.7355</i></p>
<p>Project Contact Person: <i>María Carolina Torres</i></p>	
<p>Tel. and Email: <a href="mailto:mctorres@caf.com">mctorres@caf.com</a> / 52 (55) 1102 6904.</p>	

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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.



ADAPTATION FUND

**Letter of Endorsement by Government**



Government of Chile  
Ministry of Environment

Santiago de Chile, January 8, 2016

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

**Subject: Endorsement for Regional Project *Reducing climate vulnerability and risk of flooding in coastal urban and semi urban areas in Latin American cities***

In my capacity as designated authority for the Adaptation Fund in Chile, I confirm that the above regional project proposal is in accordance with the government's national priorities in implementing adaptation activities to disaster risk reduction and early warning systems of Chile.

Accordingly, I am pleased to endorse the above project/programme proposal with support from the Adaptation Fund. If approved, the project will be implemented by CAF-banco de Desarrollo de America Latina and executed by Ministry of Environment.

Sincerely,

Ms. Gladys Santis  
Adaptation Officer  
Climate Change Department  
Ministry of Environment of Chile



ADAPTATION FUND

**Letter of Endorsement by Government**

Government of Ecuador  
Ministry of Environment

Quito, 08<sup>th</sup> January, 2016

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

**Subject: Endorsement for Regional Project Reducing climate vulnerability and flood risk in coastal urban and semi urban areas in cities in Latin America**

In my capacity as designated authority for the Adaptation Fund in Ecuador, I confirm that the above regional project proposal is in accordance with the government's national priorities in implementing adaptation activities to disaster risk reduction and early warning systems of Ecuador.

Accordingly, I am pleased to endorse the above project/programme proposal with support from the Adaptation Fund. If approved, the project will be implemented by CAF-banco de Desarrollo de America Latina and executed by Ministry of Environment.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Daniel Ortega', written over a horizontal line.

Dr. Daniel Ortega  
Minister of Environment




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

- A. Record of endorsement on behalf of the government<sup>1</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 annexes to the project/programme Disaster risk reduction and early warning systems proposal.

<p><i>Gladys Santis, Adaptation Officer, Climate Change Office, Ministry of Environment of Chile</i></p>	<p>Date: July 27, 2015 Reviewed on January 8, 2016</p>
<p><i>Daniel Vicente Ortega Pacheco, Minister, Ministry of Environment of Ecuador</i></p>	<p>Date: July, 24, 2015 Reviewed on January 11, 2016</p>

- 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

<p>I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans (Regional Development Strategy of the Metropolitan Region of Santiago 2012-2021 (Chile); Regional Strategy for the Conservation of Biodiversity RMS 2015-20 (Chile); Plan for Adaptation to Climate Change within Biodiversity 2014 (Chile); National Plan for Good Living 2013-2017 (Ecuador); National Climate Change Strategy 2012-2025 (Ecuador) and subject to the approval by the Adaptation Fund Board, <u>commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund</u> and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.</p>	
	
<p><i>Ligia Castro</i> Dirección de Ambiente y Cambio Climático Implementing Entity Coordinator</p>	
<p>Date: January 8, 2016</p>	<p>Tel. and email: <a href="mailto:lcastro@caf.com">lcastro@caf.com</a> +57.1.743.7355</p>
<p>Project Contact Person: María Carolina Torres</p>	
<p>Tel. and Email: <a href="mailto:mctorres@caf.com">mctorres@caf.com</a> / 52 (55) 1102 6904.</p>	

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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.