Adaptation Fund Board
Project and Programme Review Committee
Twenty-Second Meeting
Bonn, Germany, 20-21 March 2018

Agenda Item 9 c)

PROPOSAL FOR (CHILE, COLOMBIA, PERU)
Background

1. The strategic priorities, policies and guidelines of the Adaptation Fund (the Fund), as well as its operational policies and guidelines include provisions for funding projects and programmes at the regional, i.e. transnational level. However, the Fund has thus far not funded such projects and programmes.

2. The Adaptation Fund Board (the Board), as well as its Project and Programme Review Committee (PPRC) and Ethics and Finance Committee (EFC) considered issues related to regional projects and programmes on a number of occasions between the Board’s fourteenth and twenty-first meetings but the Board did not make decisions for the purpose of inviting proposals for such projects. Indeed, in its fourteenth meeting, the Board decided to:

   (c) Request the secretariat to send a letter to any accredited regional implementing entities informing them that they could present a country project/programme but not a regional project/programme until a decision had been taken by the Board, and that they would be provided with further information pursuant to that decision

   (Decision B.14/25 (c))

3. In its eighth meeting in March 2012, the PPRC came up with recommendations on certain definitions related to regional projects and programmes. However, as the subsequent seventeenth Board meeting took a different strategic approach to the overall question of regional projects and programmes, these PPRC recommendations were not included in a Board decision.

4. In its twenty-fourth meeting, the Board heard a presentation from the coordinator of the working group set up by decision B.17/20 and tasked with following up on the issue of regional projects and programmes. She circulated a recommendation prepared by the working group, for the consideration by the Board, and the Board decided:

   a. To initiate steps to launch a pilot programme on regional projects and programmes, not to exceed US$ 30 million;

   b. That the pilot programme on regional projects and programmes will be outside of the consideration of the 50 per cent cap on multilateral implementing entities (MIEs) and the country cap;

   c. That regional implementing entities (RIEs) and MIEs that partner with national implementing entities (NIEs) or other national institutions would be eligible for this pilot programme, and

   d. To request the secretariat to prepare for the consideration of the Board, before the twenty-fifth meeting of the Board or intersessionally, under the guidance of the
working group set up under decision B.17/20, a proposal for such a pilot programme based on consultations with contributors, MIEs, RIEs, the Adaptation Committee, the Climate Technology Centre and Network (CTCN), the Least Developed Countries Expert Group (LEG), and other relevant bodies, as appropriate, and in that proposal make a recommendation on possible options on approaches, procedures and priority areas for the implementation of the pilot programme.

(Decision B.24/30)

5. The proposal requested under (d) of the decision above was prepared by the secretariat and submitted to the Board in its twenty-fifth meeting, and the Board decided to:

a. Approve the pilot programme on regional projects and programmes, as contained in document AFB/B.25/6/Rev.2;

b. Set a cap of US$ 30 million for the programme;

c. Request the secretariat to issue a call for regional project and programme proposals for consideration by the Board in its twenty-sixth meeting; and

d. Request the secretariat to continue discussions with the Climate Technology Center and Network (CTCN) towards operationalizing, during the implementation of the pilot programme on regional projects and programmes, the Synergy Option 2 on knowledge management proposed by CTCN and included in Annex III of the document AFB/B.25/6/Rev.2.

(Decision B.25/28)

6. Based on the Board Decision B.25/28, the first call for regional project and programme proposals was issued and an invitation letter to eligible Parties to submit project and programme proposals to the Fund was sent out on 5 May 2015.

7. In its twenty-sixth meeting the Board decided to request the secretariat to inform the Multilateral Implementing Entities and Regional Implementing Entities that the call for proposals under the Pilot Programme for Regional Projects and Programmes is still open and to encourage them to submit proposals to the Board at its 27th meeting, bearing in mind the cap established by Decision B.25/26.

(Decision B.26/3)

8. In its twenty-seventh meeting the Board decided to:
a. Continue consideration of regional project and programme proposals under the pilot programme, while reminding the implementing entities that the amount set aside for the pilot programme is US$ 30 million;

b. Request the secretariat to prepare for consideration by the Project and Programme Review Committee at its nineteenth meeting, a proposal for prioritization among regional project/programme proposals, including for awarding project formulation grants, and for establishment of a pipeline; and

c. Consider the matter of the pilot programme for regional projects and programmes at its twenty-eighth meeting.

(Decision B.27/5)

9. The proposal requested in (b) above was presented to the nineteenth meeting of the PPRC as document AFB/PPRC.19/5. The Board subsequently decided:

a) With regard to the pilot programme approved by decision B.25/28:

(i) To prioritize the four projects and 10 project formulation grants as follows:

1. If the proposals recommended to be funded in a given meeting of the PPRC do not exceed the available slots under the pilot programme, all those proposals would be submitted to the Board for funding;

2. If the proposals recommended to be funded in a given meeting of the PPRC do exceed the available slots under the pilot programme, the proposals to be funded under the pilot programme would be prioritized so that the total number of projects and project formulation grants (PFGs) under the programme maximizes the total diversity of projects/PFGs. This would be done using a three-tier prioritization system: so that the proposals in relatively less funded sectors would be prioritized as the first level of prioritization. If there are more than one proposal in the same sector: the proposals in relatively less funded regions are prioritized as the second level of prioritization. If there are more than one proposal in the same region, the proposals submitted by relatively less represented implementing entity would be prioritized as the third level of prioritization;

(ii) To request the secretariat to report on the progress and experiences of the pilot programme to the PPRC at its twenty-third meeting; and

b) With regard to financing regional proposals beyond the pilot programme referred to above:

(i) To continue considering regional proposals for funding, within the two categories originally described in document AFB/B.25/6/Rev.2: ones requesting up to US$ 14 million, and others requesting up to US$ 5 million, subject to review of the regional programme;
(ii) To establish two pipelines for technically cleared regional proposals: one for proposals up to US$ 14 million and the other for proposals up to US$ 5 million, and place any technically cleared regional proposals, in those pipelines, in the order described in decision B.17/19 (their date of recommendation by the PPRC, their submission date, their lower “net” cost); and

(iii) To fund projects from the two pipelines, using funds available for the respective types of implementing entities, so that the maximum number of or maximum total funding for projects and project formulation grants to be approved each fiscal year will be outlined at the time of approving the annual work plan of the Board.

(Decision B.28/1)

10. According to the Board Decision B.12/10, a project or programme proposal needs to be received by the secretariat no less than nine weeks before a Board meeting, in order to be considered by the Board in that meeting.

11. The following project pre-concept document titled “Enhancing adaptive capacity of Andean communities through climate services” was submitted by the World Meteorological Organization (WMO), which is a Multilateral Implementing Entity of the Adaptation Fund.

12. This is the first submission of the pre-concept project proposal, using the three-step approval process established for regional projects. The present submission was received by the secretariat in time to be considered in the thirty-first Board meeting. The secretariat carried out a technical review of the project proposal, assigned it the diary number LAC/MIE/DRR/2018/2, and completed a review sheet.

13. The secretariat is submitting to the PPRC the summary the final technical review of the pre-concept for a regional project, both prepared by the secretariat, along with the final submission of the proposal in the following section. The proposal is also submitted with changes between the initial submission and the revised version highlighted.

14. Lastly, the World Meteorological Organization has submitted a Project Formulation Grant Request, which is also available as an addendum to this document.
Project Summary

Chile, Colombia, Peru – Enhancing Adaptive Capacity of Andean Communities through Climate Services (ENACACS)

Implementing Entity: WMO
Project/Programme Execution Cost: USD 650,000
Total Project/Programme Cost: USD 6,850,000
Implementing Fee: USD 548,000
Financing Requested: USD 7,398,000

Project Background and Context:

The Andean region has considerable water resources but unevenly distributed over time and location due to strong seasonal to interannual precipitation variability and local weather. Countries in the region are under the influence of the ENSO phenomenon and the InterTropical Convergence Zone (ITCZ), which is strongly modulated by the sea surface temperatures in the tropical Pacific.

Colombia, Peru and Chile have requested support to implement the Global Framework for Climate Services (GFCS) and develop climate services for reducing the vulnerability of key societal and economic sectors and building resilience to climate change. This project proposal responds to these requests and provides support by WMO and regional partners to these countries. The present project will assess the impacts of climate variability and change on water, which in turn will provide information for subsequent assessments of climate impacts in other sectors and systems, in particular, food security and food production, hydropower generation and competitive uses of water (e.g. by cities, towns and for irrigation), and ecosystem and biodiversity preservation.

Component 1: Identification of stakeholders, climate information requirements, and communication channels for service delivery (USD 1,200,000)

This component aims at establishing or strengthening multi stakeholder platforms to support co-design and co-production of tailored climate services.

Component 2: Improved regional-national operational climate monitoring and forecast system for improved adaptation and decision-making (USD 1,750,000)

Activities under this component will focus on strengthening the technical capacity of the National Meteorological and Hydrological Services (NMHSs) of Colombia, Peru and Chile to generate and disseminate tailored hydroclimate information and services to anticipate and respond to weather and climate hazards.

Component 3: End-to-end service through customization of climate information, communication and user feedback system (USD 1,450,000)

This component aims at sustaining the provision and use of regional climate information, and end-to-end climate services through a demand-driven approach and stakeholder capacity development.
**Component 4: Capacity building (development and improvement) – (USD 1,200,000)**

This component aims at improving the capacity of the NMHSs to generate high quality and high relevant climate products, at improving the capacity of the RCC to access regionally optimized climate date and forecasts from the WMO Global Producing Centers, and at improving the capacity of cities and communities to mainstream climate information in risk management.

**Component 5: Quality assurance and documentation of socio-economic benefits (USD 600,000)**

This component aims at developing guidelines on the production and use of climate services, and at developing adaptation plans based on socio-economic benefits measured by impacts on the use of climate and weather information.
ADAPTATION FUND BOARD SECRETARIAT TECHNICAL REVIEW
OF PROJECT/PROGRAMME PROPOSAL

PROJECT/PROGRAMME CATEGORY: Pre-Concept for a Regional Project

Countries/Region: Chile, Colombia, Peru
Project Title: Enhancing adaptive capacity of Andean communities through climate services
Thematic focal area: DRR
Implementing Entity: World Meteorological Organization
Executing Entities: National Meteorological and Hydrological Services of Colombia (IDEAM), Chile (DMC) and Peru (SENAMHI) and the WMO regional Climate Centre for Western South America (CIIFEN)
AF Project ID: LAC/MIE/DRR/2018/2
IE Project ID: Requested Financing from Adaptation Fund (US Dollars): 7,398,000
Reviewer and contact person: Martina Dorigo
Co-reviewer(s): Christian Severin
IE Contact Person(s): Jean-Paul Gaudechoux

<table>
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<tr>
<th>Review Criteria</th>
<th>Questions</th>
<th>Comments 3 February 2018</th>
<th>Comments 20 February 2018</th>
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<tr>
<td>Country Eligibility</td>
<td>1. Are all of the participating countries party to the Kyoto Protocol?</td>
<td>Yes.</td>
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<td></td>
<td>2. Are all of the participating countries developing countries particularly vulnerable to the adverse effects of climate change?</td>
<td>Yes, the participating countries are developing countries and the region is under the influence of El Nino Southern Oscillation (ENSO) phenomenon and the Inter Tropical Convergence Zone (ITCZ). This impacts the spatial-temporal distribution of precipitation, cloud cover, availability of solar and wind resources, as well as food production and agricultural waste. Climate Change is accelerating the progressive retreat of the glaciers in the Andes that host more than 95% of the world’s tropical glacier, providing water for drinking, small farms, etc.</td>
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<td>Project Eligibility</td>
<td>1. Have the designated government authorities for the Adaptation Fund from each of the participating countries endorsed the project/programme?</td>
<td>Yes, letters of endorsement from the DA of Chile, Colombia and Peru have been received.</td>
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<td>2. Has the pre-concept provided necessary information on the problem the proposed project/programme is aiming to solve, including both the regional and the country perspective?</td>
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<td>Partly, the overall issue that is to be addressed is described adequately. This project aims at assessing the impacts of climate variability and change on water (and consequently on other sectors and systems in particular food security and production). This will be reached by strengthening the capacities of the regional center and the National Meteorological and Hydrological Services (NMHSs) to better meet the needs of their countries and to achieve the relevant operational connections required to for an optimal climate information system. The project activities seem to focus more on the national planned investments, nevertheless without a stronger set of regional activities that ties the national activities together, this investment may as well be funded through three separate national proposals. <strong>CR 1:</strong> Please strengthen the regional set of activities and description of the regional/national linkages. Please include activities that will elevate the national investments into regional capacity. Such as development of regional data sharing mechanisms, including agreements to host and maintain such mechanism.</td>
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<td>CR 1: Addressed. The proponent provided additional information on the regional scope of the planned activities. Moreover, additional information with regard to the operational system was provided. From the additional information provided it is noted that the existing regional climate outlook forum, is a regional integration mechanism executed by the International Research Center on el Niño (CIIFEN) that has been providing regionally integrated climate forecasts uninterruptedly since 2003 in the region. This will be used to strengthen south-south cooperation to enhance the capacities of other NMHSs. However, in the development of the concept further describe or include information regarding the already existing/or to be signed agreement to host and maintain such mechanism in the long-term.</td>
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<td><strong>3. Have the project/programme objectives, components and financing been clearly explained?</strong></td>
<td>Yes, however taking into account comment CR 1, please consider also to reduce the number of outputs listed, some outputs are formulated as activities and some might be overlapping. <strong>CR 2:</strong> Please consider simplifying the project components table. Also, please further elaborate on the M&amp;E project component. Is this referred to the project cycle management fee or to activities to be taken as part of project implementation? This is unclear. If it is the former, these costs should be included as part of the Management Fee.</td>
<td><strong>CR 2:</strong> Addressed. The projects components table was simplified. Additionally, it is noted that the M&amp;E for this project is included in the management fee. Under this component “Quality Assurance and Documentation of Socio-economic Benefits” you might want to consider, in the concept note preparation, to produce the socio-economic benefits assessment based on the impacts of the use of climate and weather information, also as a regional publication, to better disseminate lessons learned.</td>
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4. Has the project/programme been justified in terms of how:
   - it supports concrete adaptation actions?
   - it builds added value through the regional approach?
   - it promotes new and innovative solutions to climate change adaptation?
   - it is cost-effective?
   - it is consistent with applicable strategies and plans?
   - it incorporates learning and knowledge management?
   - it will be developed through a consultative process with particular

Concrete adaptation actions:
The project aims at strengthening the capacities of the regional centre and the NMHSs to better meet the needs of their countries. The resulting strengthened operational system will support climate services delivery in selected local communities affected by climate change.
At concept stage further elaborate on how the project will support the delivery of climate services in the selected communities (periodicity, tools such as the mentioned local radios, accessibility). How the communities will be selected, has a vulnerability assessment been conducted?

Regional approach:
Partly, please see comment CR1 under point 2. There is a lack of explanation of the regional activities and how the different sets of national investments will further regional cooperation to increase adaptation capacity across the participating countries and communities.

Innovative solutions: the project entails innovative deliverables such as:
   i) improved use and access to weather and data, remote sensing and modelling, to use by intensive and extensive agriculture;
   ii) services provided to the energy sector (databases, forecasts and scenarios for long term climatic variables, instrument calibration, etc.); and
   iii) water use based on resource monitoring and impact-oriented forecasts.

Cost-effectiveness: the proposed initiative should be cost-effective by having an enhanced on-going collection, updating and processing of the data at regional level, in delivering forecasts model outputs to countries, and tailoring products for country-level decision support systems.
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<th><strong>Reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy of the Adaptation Fund?</strong></th>
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<td>At concept stage please elaborate on how this initiative would build upon the current CLIMANDES initiative implemented by WMO in Peru.</td>
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**Consistency with strategies and plans:** yes, consistency with plans and strategies at national level is documented.

**CR 3:** Please include also, if applicable, information of this proposal consistency with regional strategies.

**Learning and knowledge management:**

The proposed set of investments present a good opportunity setting up regional “Communities of practice”, in which the stakeholders will be able to share experiences and learn from each other. Moreover COPs, will also be a good mechanism to capture and distil lessons learned and best practices.

**Consultative process:** the proposal was developed by national institutions, CIIFEN and WMO following national consultations.

**CR 4:** Please provide details on the consultations conducted so far (date, institutions). As a reminder, in the proposal stage consultations at community level, taking into account the most vulnerable groups, and including gender considerations have to be conducted.

**Sustainability:** The climate service provision value chain will set up an example for the larger region that could be later scaled up to other countries supported by CIIFEN, such as: Bolivia, Ecuador and Venezuela. This project could also set an example to be scaled up in other world regions.

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**CR 3:** Addressed.

**CR 4:** Addressed, more details on the consultations conducted with national stakeholders in the 3 countries have been provided. In the concept stage information on consultations at community level should also be provided, taking into account and incorporating considerations from the most vulnerable groups, including women and youth (if possible).
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<th>5.</th>
<th>Does the pre-concept briefly explain which organizations would be involved in the proposed regional project/programme at the regional and national/sub-national level, and how coordination would be arranged? Does it explain how national institutions, and when possible, national implementing entities (NIEs) would be involved as partners in the project?</th>
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<td>Yes, partners have been identified at regional and national level in Colombia, Chile and Peru. CIIFEN, the WMO Regional Climate Center based in Ecuador, will support WMO and national institutions for project implementation of the regional activities. The NMHSs in each participating country will be leading national consultations and climate information co-production.</td>
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<td>The engagement of the NIEs in Chile (AGCI) and Peru (PROFONANPE) is not contemplated in this regional proposal.</td>
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<td><strong>CR 5:</strong> Please explain the reason, and if possible seek collaboration with them, and explain their role in the programme implementation arrangements.</td>
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<td>As a suggestion, you might want to think what are the opportunities to engage with private sector, other than on an ad-hoc basis, but throughout the project implementation? (i.e. output 3.5: private institutions are involved to support and contribute in the climate information communication chain). Please consider if the private sector can be part of project steering committee.</td>
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<td><strong>CR 5:</strong> Addressed. It is noted that that this programme will seek collaboration with the NIEs in Peru and Chile, on which more information will be provided at the concept stage.</td>
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<th>6.</th>
<th>Is the requested project / programme funding within the funding windows of the pilot programme for regional projects/programmes?</th>
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<td>Yes, the total requested funding is USD 7,398,000.</td>
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<th>7.</th>
<th>Are the administrative costs (Implementing Entity Management Fee and Project/Programme Execution Costs) at or below 20 per cent of the total project/programme budget?</th>
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<tr>
<td>Yes, the administrative costs correspond to 1,198,000 USD or 17.49% of the total project’s budget.</td>
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<td>Eligibility of IE</td>
<td>8. Is the project/programme submitted through an eligible Implementing Entity that has been accredited by the Board?</td>
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| Technical Summary | The objective of the proposed project is to reduce vulnerability and strengthen resilience of Andean communities in Peru, Colombia and Chile to climate change by increasing the ability of the countries to better manage water for more efficient cropping, irrigation and power generation. The initial technical review finds that while the planned project activities are described relatively clearly, the justification and added value for implementing those as a regional project was not very strong. The following comments should be addressed:  
**CR 1:** Please strengthen the regional set of activities and description of the regional/national linkages. Please include activities that will elevate the national investments into regional capacity. Such as development of regional data sharing mechanisms, including agreements to host and maintain such mechanism;  
**CR 2:** Please consider simplifying the project components table. Also, please further elaborate on the M&E project component. Is this referred to the project cycle management fee or to activities to be taken as part of project implementation? This is unclear. If it is the former, these costs should be included as part of the Management Fee;  
**CR 3:** Please include, if applicable, information of this proposal consistency with regional strategies;  
**CR 4:** Please provide further information on the consultations that already took place, detailing the institutions consulted and dates;  
**CR 5:** As part of the programme coordination strategy, please seek the involvement of the National Implementing Entities (NIEs) in Chile and Peru and detail how they will take part into the project.  

**Final review:**  
The final technical review finds that the all the issues identified under the initial technical review of the current submission have been sufficiently addressed. It is recommended, however, that the proponent elaborates on the following points in the submission of the concept note: |
- In the development of the concept further describe or include information regarding the already existing/or to be signed agreement to host and maintain the regional data sharing mechanism in the long-term;

- In the concept stage information on consultations at community level should be also be provided, taking into account and incorporating considerations from the most vulnerable groups, including women and youth (if possible).

| Date:               | February 21, 2018 |
Letter of Endorsement by Government

December 27th, 2017

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

Subject: Endorsement for "Enhancing Adaptive Capacity of Andean Communities through Climate Services (ENACACS)"

In my capacity as designated authority for the Adaptation Fund in Chile, I confirm that the above regional project/programme proposal is in accordance with the government’s national priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the country.

Accordingly, I am pleased to endorse the above project/programme proposal with support from the Adaptation Fund. If approved, the project/programme will be implemented by the World Meteorological Organization (WMO) and executed by the National Meteorological and Hydrological Services of: Colombia (IDEAM), Chile (DMC) and Peru (SEMANHI), and the WMO regional Climate Centre for Western South America (CIIFEN).

Sincerely,

[Signature]
Gladys Santis
Adaptation Officer
Ministry of Environment
Government of Chile
Estimado Jose Franklyn,

Por medio del siguiente oficio envío adjunto la carta de apoyo en calidad de Punto Focal del País ante el Fondo de Adaptación.

Cordialmente,

ANGELICA MARÍA MAYOLO OBREGÓN
Jefe de la Oficina de Asuntos Internacionales

Anexo: Endorsement letter "Enhancing Adaptive Capacity of Andean Communities through Climate Services"

Proyectó: Angélica María Mayolo Obregón
Revisó: Angélica María Mayolo Obregón
Lima,  
8 ENE. 2018

Letter N° 01 -2018-MINAM/VMDERN/DGCCD

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

Subject : Endorsement the Pre-Concept for a Regional Project: “Enhancing Adaptive Capacity of Andean Communities through Climate Services (ENACACS)”

Dear Sirs:

In my capacity of Designated Authority for the Adaptation Fund in Peru, I confirm that the above regional project proposal is in accordance with the government’s national and subnational priorities; specifically with the National Designated Contributions (NDC) in thematic areas of water and agriculture in adaptation; reducing adverse impacts risks by climate change in our country.

Accordingly, I am pleased to endorse this project proposal with support from the Adaptation Fund, as it has been being. If approved, the project will be implemented by the World Meteorological Organization (WMO) and executed by The National Service of Meteorology and Hydrology of Peru.

Sincerely yours,

Rosa Morales Saravia  
Head of the General Directorate of Climate Change and Desertification  
Ministry of the Environment  
Designated Authority
PRE-CONCEPT FOR A REGIONAL PROJECT/PROGRAMME

PART I: PROJECT/PROGRAMME INFORMATION

Title of Project/Programme: Enhancing Adaptive Capacity of Andean Communities through Climate Services (ENACACS)
Countries: Chile, Colombia, Peru
Thematic Focal Area: Disaster risk reduction and early warning systems
Type of Implementing Entity: MIE
Implementing Entity: World Meteorological Organization (WMO)
Executing Entities: National Meteorological and Hydrological Services of Colombia (IDEAM), Chile (DMC) and Peru (SENAMHI), and the WMO regional Climate Centre for Western South America (CIIFEN)
Amount of Financing Requested: 7,398,000 (in U.S. Dollars Equivalent)

Project / Programme Background and Context:

The Andean region has considerable water resources but unevenly distributed over time and location due to strong seasonal to interannual precipitation variability and local weather. Countries in the region are under the influence of the ENSO phenomenon and the InterTropical Convergence Zone (ITCZ), which is strongly modulated by the sea surface temperatures in the tropical Pacific. The status of El Niño or La Niña exerts strong control over the spatial-temporal distribution of precipitation, cloud cover, availability of solar and wind resources, as well as food production and agricultural waste (biomass), with significant socio-economic consequences. The Colombian electric system, for example, depends heavily on the availability of water. The 2015-2016 El Niño reduced the Colombian hydroelectric resource to 43% of its historic values for the period of September 2015 to March 2016. The deficit led to higher operational costs and larger CO₂ emissions than in typical years. In Peru, seventy-two percent (72%) of national emergencies are related to drought, heavy rain, floods, frost, and hail. According to the National Convention of Peruvian Agriculture (Conveagro) the floods in April 2017 caused losses of near US$ 645 million in the agriculture and livestock sectors. These natural disasters are becoming more frequent in the context of climate change. Central regions in Chile are regularly affected by severe drought -on occasions the water shortage has exceeded 50%- but, since 2010, this area has experienced an uninterrupted sequence of dry years (30 to 70% rainfall deficit) that have coincided with the warmest decade on record. The precipitation deficit diminished the Andean snowpack and resulted in amplified declines (up to 90%) of river flow, reservoir volumes and groundwater levels. Climate change is accelerating the progressive retreat of the tropical glaciers in the Andes that host more than 95% of the world’s tropical glaciers and that provide water for drinking, small firms, hydroelectric power generation and transnational mining operations. In the past 30 years the glaciers have lost more than 30% of their ice and snow which will lead to severe water shortages in the future.

Colombia, Peru and Chile have requested support to implement the Global Framework for Climate Services (GFCS) and develop climate services for reducing the vulnerability of key societal and economic sectors and building resilience to climate change. This project proposal responds to these requests and provides support by WMO and regional partners to these countries. The present project will assess the impacts of climate variability and change on water, which in turn will provide information for subsequent assessments of climate impacts in other sectors and systems, in particular, food security and food production, hydropower generation and competitive uses of water (e.g. by cities, towns and for irrigation), and ecosystem and biodiversity preservation.

Regional similarities and shared climate impacts and vulnerabilities make regional cooperation essential for addressing the dynamics of climate variability and change at both national and local scales. The proposed actions to strengthen climate services-information for in the region national adaptation involve a coordinated regional climate information-producing and -sharing architecture able to deliver operational climate monitoring and prediction products in support of long-term climate services for local communities adaptation at community and local level decision making, using national standards, focusing onto mitigate the climate influence over the interconnections related to water use and availability. The proposed approach contributes to improve water, food

1 Thematic areas are: Food security; Disaster risk reduction and early warning systems; Transboundary water management; Innovation in adaptation finance.
and energy resources management as part of overall ongoing climate adaptation, mitigation and sustainable development efforts.

**Project / Programme Objectives:**

The overall objective of the project is to reduce vulnerability and strengthen resilience of Andean communities in Peru, Colombia and Chile to climate variability and change by increasing the ability of the countries to better manage water for more efficient cropping, irrigation and power generation, including improved adaptation to weather and climate extremes.

The identified action areas are:

- Colombia: Upper Magdalena River Basin (Departments of Tolima, Huila and Cundinamarca)
- Peru: catchments affected by El Niño events including the Tumbes and Piura rivers in the north, and Rímach and Huallaga rivers,
- Chile: central region of the country (Valparaiso to Maule regions) where important catchments like Aconcagua, Tinquiquia and Maule are located.

The sub-objectives of the project, which are in line with the project components below and the Adaptation Fund outcomes, are:

- Increased resilience of the Andean communities through better climate risk management and improved access to and use of weather and climate information, for defining and enhancing adaptation strategies and planning to ensure food and energy security during periods of water scarcity as result of climate variability and change
- Increased strengthened technical capacity of the National Meteorological and Hydrological Services (NMHSs) of Colombia, Peru and Chile to generate and disseminate tailored hydroclimate information and services to anticipate and respond to weather and climate hazards
- Sustained provision and use of regional climate information, and end-to-end climate services through a demand-driven approach to-and stakeholder capacity development
- Improved participation and communication of local communities and diverse stakeholder populations

**Project / Programme Components and Financing:**

<table>
<thead>
<tr>
<th>Project/Programme Components</th>
<th>Expected Outputs/Outcomes</th>
<th>Expected Outputs/Activities</th>
<th>Amount (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Identification of stakeholders, climate information requirements needs, and communication channels for service delivery</td>
<td>Detailed mapping of water, energy and disaster risk demand climate impacts, and societal stakeholder’s needs</td>
<td>1.1 Community climate and impact assessments, 1.2 Needs assessment of climate impacts, climate information needs and water demand for sectors and communities (national)</td>
<td>1,200,000</td>
</tr>
<tr>
<td></td>
<td>Sustained delivery of weather and climate-related advisories to and weather Information System based locking existing systems and providing decision-support decision making and early warnings for water authorities, agriculture and energy support products to sectorial users/processors</td>
<td>1.3 Climate Information System including Decision Support products: Improving capacity for production of and access to high precision, timely, relevant climate advisory services as required by users (national)</td>
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<td></td>
<td>- Established or strengthened multi-stakeholder platforms to support co-design and co-production of tailored climate services</td>
<td>1.4 Integrated EWS for drought/floods, extreme events, and sectorial impacts</td>
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<td></td>
<td>- Warning at local level and decision making support on water and disaster risk management for drought and exceptional rainy periods</td>
<td>1.5 Improved access to climate information and alerts for least developed communities</td>
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<td></td>
<td>- Improved identification of schemes for integrated water and drought management and monitoring</td>
<td>1.6 Identification of schemes for integrated water and drought management and monitoring</td>
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<td></td>
<td>- Establishment of 1.7 Institutional agreements to share information and tools</td>
<td>1.7 Institutional agreements to share information and tools</td>
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<td></td>
<td>- National Frameworks for Climate Services and hold regular National Climate Forums (national)</td>
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<tr>
<td>2. Improved operational climate monitoring and forecast system supporting co-generation of product and services for improved adaptation and regional-nationa</td>
<td>Climate and hydrological databases interoperable and accessible Updated national data management systems and archives, and integrated regional hydrological and meteorological database</td>
<td>1.8 Data rescue, homogenization of dataset in digital form (national)</td>
<td>1,750,000</td>
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<td></td>
<td>- Improved climate predictions and projections by establishing an optimized cascading system involving the regionalization of the global forecast</td>
<td>- Gridded regional datasets and data exchange regional Launched regional Long-Range Forecast (LRF) from Global LRF products and verification (regional)</td>
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<td>- Information and validation of climate change projections (regional)</td>
<td>- Consensus statements through the Regional Climate Outlook Forum (RCOF) (regional)</td>
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<tr>
<td>Decision-making</td>
<td>3. End-to-end value chain/service customization of climate information, communication, service delivery, and user feedback system</td>
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<tr>
<td><strong>Benefits</strong></td>
<td><strong>Socio-documentation of Assurance</strong></td>
<td></td>
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<tr>
<td><strong>Products</strong></td>
<td>Improved forecast products through a co-generation effort.</td>
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<tr>
<td><strong>Processes</strong></td>
<td>Improved sector decision making process.</td>
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<tr>
<td><strong>Observation networks</strong>, including better data management.</td>
<td><strong>3.1 Baseline of existing communication channels and current users.</strong>  <strong>Design and co-development of climate advisory products (national)</strong></td>
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<tr>
<td><strong>2. Improved weather and hydrological forecasts and extreme event alerts.</strong></td>
<td><strong>3.2 Educational Training activities for NMHSs, sectoral ministries, schools, rural communities, women and youth (regional and national) activities in rural schools</strong></td>
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<tr>
<td><strong>2.3 Tailored seasonal forecast for specific sites.</strong></td>
<td><strong>3.3 Traditional knowledge and community management are integrated into water management.</strong>  <strong>Women and youth have access to climate information.</strong></td>
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<td><strong>2.4 Coordinated climate projections/scenarios.</strong></td>
<td><strong>3.4 Local radios and television (national) provide tailored information for rural communities.</strong>  <strong>Collection of best practices and lessons learned (national and regional).</strong></td>
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<td><strong>2.5 Insertion of climate vulnerability/risks in risk management.</strong></td>
<td><strong>3.5 Mobilization of micro-hydropower operators (national).</strong>  <strong>Mobilization of resources mobilized communities and industries benefiting from the project to sustain capacity building efforts (regional and national).</strong></td>
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<tr>
<td><strong>2.6 Improved weather and hydrological forecasts and extreme event alerts.</strong></td>
<td><strong>3.6 Insertion of climate vulnerability/risks consideration in local land use, development and territory management plans</strong>  <strong>Regional and National Climate Forums (regional and national).</strong></td>
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<tr>
<th>4. Capacity building (development and improvement)</th>
<th>5. Monitoring and evaluation/Quality Assurance and documentation of socio-economic benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regional Information System is widely used beyond the core project stakeholders.</strong>  <strong>Climate Services Toolkit (CST).</strong></td>
<td><strong>Documentation of methodology, lessons of products and best practices.</strong>  <strong>An M&amp;E system is in place for the project.</strong></td>
</tr>
<tr>
<td><strong>National Climate Information System</strong> Agricultural associations with high income and energy operators participate in Helpdesk (CISH).</td>
<td><strong>Specific indicators for feedback analysis.</strong>  <strong>Development of guidelines on the production and use climate services (regional and national).</strong></td>
</tr>
<tr>
<td><strong>Participatory approaches are designed for disaster risk management, water, energy and food security, and are run by stakeholders and key actors.</strong>  <strong>Improved capacity of NMHSs to generate high quality and high relevant climate products.</strong></td>
<td><strong>Publication of results.</strong>  <strong>Collection and evaluation of project Socio-economic impact assessment on the use of weather and climate information for disaster risk.</strong></td>
</tr>
<tr>
<td><strong>Improved capacity of RCC to access and regionally optimized climate data and forecasts from the WMO Global Producing Centers.</strong></td>
<td><strong>Improved capacity of Local-cities and communities to take into account mainstream climate information in risk management.</strong>  <strong>The risks associated with drought and extraordinary rain periods for planning and response, and risks are reduced.</strong></td>
</tr>
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</table>

**Total costs:**
- **3.1 Baseline of existing communication channels and current users.**  **Design and co-development of climate advisory products (national)**: 1.450.000
- **3.2 Educational Training activities for NMHSs, sectoral ministries, schools, rural communities, women and youth (regional and national) activities in rural schools**: 1.200.000
- **3.4 Local radios and television (national) provide tailored information for rural communities.**  **Collection of best practices and lessons learned (national and regional).**: 600.000
PART II: PROJECT / PROGRAMME JUSTIFICATION

Project Components: the regional scale of the project

Colombia, Chile and Peru, and other Andean countries, share regional climate characteristics. As described in the Project Background and Context and Moreover, according to latest IPCC assessment report, changes in stream flow and water availability have been observed due to the retreat of the Andean glaciers. A regional approach allows for common needs and measures to be identified, supported by an operational system for climate services involving regional and global climate centers as well as National Meteorological and Hydrological Services (NMHSs). The forecast system worldwide is based on operational global and regional numerical weather prediction models fed by data and observations exchanged internationally by NMHSs and regional and global centers. Outputs from these models are analyzed and further downscaled to national scales by NMHSs, and tailored for supporting specific decisions in climate sensitive sectors (see figure). Examples include information on variability of inflow for reservoir operations, soil moisture for selection of crops and water availability for irrigation. Countries in Western South America are supported in this regard by a WMO Regional Climate Center (RCC), the International Research Center on El Niño (CIIFEN), based in Ecuador. CIIFEN, has the goal to strengthen NMHSs capacities to provide better climate services to users in various sectors of the region, especially in food security, water resources, energy, and climate risks. Its mandate is based on GCFS. The activities of CIIFEN and RCC-WSA are regional and scalable at national level through the NMHSs. Some regional activities are aimed to strengthening mechanisms for the operational exchange of meteorological data, the consolidation of regional databases, and analysis of vulnerability to climate change in transboundary basins that optimize resources and creates synergies of national efforts. The RCC plays a pivotal role in Examples include information on variability of inflow for reservoir operations, soil moisture for selection of crops and water availability for irrigation. Countries in Western South America are supported in this regard by a WMO Regional Climate Center (RCC), the International Research Center on El Niño (CIIFEN), based in Ecuador. supporting NMHSs to This project aims at strengthening the capacities of the regional center, NMHSs and partners to better meet the needs of their countries and to achieve the relevant operational connections required to for an optimal climate information system, including the deployment of a Climate Services Toolkit (CST), which facilitates access by NMHSs to relevant climate data and products from CIIFEN and WMO global centers and to tools with which NMHSs can create value-added data and products. The CST deployment will be accompanied by hands-on support from CIIFEN and third-party NMHSs with advanced climate services capabilities. The resulting strengthened operational system will support climate services delivery in selected local communities affected by climate variability and change. The resulting service provision value chain will set an example for the larger region that could be later scaled up to cover the other countries in the region supported by CIIFEN: Bolivia, Ecuador, and Venezuela.

The regional climate outlook forum is a regional integration mechanism involving six NMHSs of western South America on a monthly and uninterrupted basis since 2003 to provide regionally integrated climate forecasts. This integration mechanism will be used to strengthen south-south cooperation where countries contribute with experts to enhance the capacities of their peers in other NMHSs. The RCC-WSA members are the directors

| 6. Project Management (9.5%) | 650,000 |
| 7. Total Project/Programme Cost | 6,850,000 |
| 8. Project Cycle Management Fee (Implementing Entity-WMO) 8% | 548,000 |
| Amount of Financing Requested | 7,398,000 |
of the NMHSs who signed the following regional strategic actions:
1. Strengthening capacities for climate data management.
2. Capacity building for seasonal prediction.
3. Strengthening of climate services to priority sectors.
4. Positioning and visibility of NMHSs as permanent and official entities in the respective countries.
5. Resource mobilization and technical cooperation for the operation of the RCC.

This project aligns with this regional strategy
The project will facilitate the development of national frameworks to establish a systematic dialogue between users and providers for addressing the demand for tailored climate services addressing these areas. The countries’ NMHSs are already engaged in user consultations for climate services to identify needs and priorities, and IDEAM (Colombia) has recently launched a National Framework for Climate Services (NFCS). This project will facilitate the establishment of a NFCS in Peru and Chile and will ensure that these mechanisms are serving as platform for promoting effective collaboration and cooperation at national level as well as rigorous monitoring and evaluation.

Promotion of new and innovative solutions
Expected innovative deliverables through this project include (further information will be included at the concept note stage):

- Improved use and access to weather and water data, remote sensing and model outputs, for use by both intensive and extensive agriculture sectors, from those highly organized to small-scale agro-associations.
- A wide portfolio of services to the energy sector, namely databases, forecasts and scenarios for medium and long term climatic variables, assessment, compliance with international standards of the hydro-meteorological networks, instrumentation calibration, training, research;
- Optimization of decision-making on water use based on resource monitoring, expected climate scenarios and impact-oriented forecasts. This will be particularly important to solve potential conflicts in water use between agriculture, energy and environment using multipurpose infrastructures, taking into account flood protection.

NMHSs are increasingly coordinating with other national and local authorities, private institutions and NGOs to deliver weather/climate advisories and warnings for extreme events. Climate information co-production will constitute core activities among them. CIIFEN, as the Regional Climate Center for the Western South America (RCC-WSAS), will lead the implementation of the regional aspects of the project and provide support to the NMHSs.. CIIFEN will share products, methods, technologies and knowledge as necessary to put the regional component of the operational system in place, and support the countries to develop the necessary capacities for their continued operation and delivery of associated services.

Cost Effectiveness
The project will build on the existing global and national climate services information system coordinated by the WMO and national authorities involved in the project. That system will produce and deliver authoritative climate information products through existing operational mechanisms, technical standards, communication and authentication.

Duplication of effort and maximum efficiency of intervention will be avoided by strengthening CIIFEN. The impact and cost-effectiveness will be reflected in enhanced on-going collection, updating and processing of data at the regional level, in delivering of reanalysis and forecast model outputs to countries, in providing technical assistance in model downscaling outputs and developing tailored products for country-level decision support systems.

Consistency with national or subnational strategies
The Project will be consistent with national sustainable development strategies, among them:
- Colombia: National Development Plan 2010-2014 (Prosperidad para todos), National Climate Change Adaptation Plan, Green Growth envelope strategy and Law 1715 of 2014, which encourages the diversification of energy supply with other non-conventional renewable sources (wind, biomass, among others), and Nationally Determined Contribution (NDC) to the Paris Agreement
- Peru: National Strategy to Fight Desertification, National Plan on Disaster management (PLANAGERD), National Strategy on Water Resources, National Adaptation Plan for Agricultural Sector 2012-2021, and NDC (developed by a Multisectoral Working Group formed by thirteen Ministries and the National Center of Strategic Planning)
- Chile: Climate Change National Action Plan 2017-2022, Climate Change Adaptation Plan Agriculture Sectoral Plan, Energy Agenda, and NDC

Learning and Knowledge management
A learning and knowledge management component to capture and disseminate lessons learned will be provided by CIIFEN and the Regional Climate Outlook Forums which is a platform for regular interactions between climate specialists and user agencies in a regional/national context. The climate services information system will comprise a set of tools, including an online web interface and sharing platform to facilitate access and networking. Lessons learnt from knowledge management in other projects in the region like CLIMANDES (https://public.wmo.int/en/projects/climanides) phase I and II, and PRASDES (http://www.prasdes-ciifen.org/), will facilitate the dissemination of best practices.

**Consultative Process**

This proposal was developed by national institutions, CIIFEN and WMO in Colombia, Chile and Peru following a series of national consultations in Colombia, Chile and Peru. CIIFEN has wide experience to engage different audiences which include authorities, local stakeholders, and small communities. The following regional activities emerged after consultations: Regional Climate Information to strengthen risk management in the agriculture sector (2007-2009); https://www.researchgate.net/publication/255754566_Technical_Guide_IADB_Final; Regional information to support public policies on climate change and biodiversity in the Andean countries (2011-2013); http://geoportal.ciifen.org/es/; Regional Andean Programme to enhance weather, climate services and development-PRASDES (2012-2016); http://prasdes-ciifen.org/. Colombia, Peru and Chile have organized-conducted national consultations processes on Climate Services requirements and other with target stakeholders as documented here below.

**Colombia:** The Climate Services for Resilient Development (CSRDi) Partnership already conducted a stakeholders meeting in Bogota in 2015, the output white paper on “Options for Climate Services Investments in Colombia” was published in early 2016. The official launch of the National Framework of Climate Services held in 1-3 November 2017 provided the basis for the development of a National Plan for implementing Climate Services. Prior to that event, meetings with sectors representatives of agriculture, energy, disaster risk reduction and water took place in September-October 2017 (see report: http://www.wmo.int/pages/prog/wcp/meetings/presentations/Bogota2010-0311-2017/Report-SeasonalForecast_Bogota_2017_final.pdf).


**Chile:** Several workshops were organized by DMC during July 2017 with the aim to meet users and learn about their climate information demand. The participant entities were: Dirección Meteorológica de Chile (DMC), Subdepartamento de Informacion, Monitoreo y Prevención (IMP), Ministerio de Agricultura (MINAGRI), Dirección General de Aguas (DGA), Ministerio de Energía (MEN), de la Unidad de Gestión de Riesgos y Emergencias Energéticas and Ministerio de Medio Ambiente (MMA). The reports of the meetings can be found here. http://164.77.222.61/climatologia/ on climate information delivery meetings. Local stakeholders consultations will be undertaken in two ways, indirectly, by involving relevant sectorial stakeholders as agriculture associations or extension agents, training them to make the consultations, or directly by consultations at community level using well tested techniques such as Roving Seminars, and Community Participatory Approaches of Climate Field Schools (for agriculture).

**Sustainability of the project**

The participating NMHSs are standing entities within their national governments. The project sustainability will be guaranteed by DMC, IDEAM and SENAMHI in their roles of government agencies supported by public funding with officially mandated duties. In Peru, policies for adaptation to climate change in agriculture are spearheaded by the Ministry of Agriculture and Irrigation (MINAGRI) in coordination with the Ministry of Environment (MINAM) and with the support of the Regional Governments (GOREs). The National Service of Meteorology and Hydrology of Peru (SENAMHI) provides climate and environmental data. Similar arrangements are in place in Colombia and Chile.

**Economic, social and environmental benefits**
Investments in risk reduction and preventive adaptation measures based on authoritative climate information spanning the historical recurrence and the future new trends should result in economic benefits for local communities and the whole nation given the potential avoided costs associated with lack of preparedness. The experience of Project CLIMANDES I and II in Peru on the estimation of the socioeconomic benefits (SEB) of climate services adapted to users in pilot areas of the Andes, will be shared with the Project.

The effective end-user climate services through capacity building, communication and awareness will guide resource allocation at community, municipality and national level thus increasing resilience and improve the wellbeing of vulnerable populations over longer term. By engaging local government authorities and community members in identifying climate information needs linked to monitoring, forecasts and alerts, the project will lay the foundation for environment-related behavioral patterns and attitudes of future generations.

The exhaustive description of social and environmental benefits will be provided in the final proposal, after due assessments and consultations are carried out with the respective authorities.

Compliance with Adaptation Fund Environmental and Societal Policy

The project will be compliant with the Environmental and Social Policy (ESP) of the Adaptation Fund and will avoid negative impacts relating to the environmental and societal principles identified by the Fund. The proposed project seeks to fully align with Adaptation Fund's Environmental and Social Policy (ESP). For the concept note, the entire project, project components and activities will be screened to identify potential environmental and social risks and impacts using the 15 Adaptation Fund Principles.

With the information available at this stage the project is expected to fall into low risk category C. Information required to further assess this classification will be provided at the concept stage.

Overlap with other funding sources and engagement with NIEs

The project will not duplicate efforts of other initiatives or funding sources. Instead the project will seek synergies with on-going and planned initiatives, and will seek engagement with the NIEs in Chile (AGCI) and Peru (PROFONAPE), regional/national institutions, and MIE (like FAO) in the region, and tap on the experiences and knowledge of completed projects and programs, which will lead to greater efficiency of resources use and maximize the final benefits and impacts. There are no regional projects that bring these countries together to address common climate related phenomenon, and apply similar approaches. Specifically, lessons will be drawn from the sample initiatives in each country.

PART III: IMPLEMENTATION ARRANGEMENTS

CIIFEN will support WMO and National Institutions for the project implementation. NMHSs will play a major role in developing partnerships for the project implementation by taking the lead on national consultations and climate information co-production. CIIFEN is expected to lead the project implementation at the regional “common” level as well as to provide support to IDEAM, SENAMHI and DMC given their long experience in project implementation with regional institutions like the Inter-American Development Bank, World Bank, Latin America Development Bank, European Commission etc...

- Colombia: National Hydrometeorological Institute IDEAM, Ministry of Agriculture and Rural Development (MADR), Agriculture and Livestock Institute (ICA), Agriculture and Livestock Research Institute (CORPOICA), Rural Agricultural Planning Unit (UPRA), Tropical Agriculture Research Centre (CIAT), Energy National Operation Centre (CNO), Energy Market Experts (XM), Mine and Energy Planning Unit (UPME), Irrigation Management National Unit (UNGIRD) and several private agricultural associations FEDEARROZ, FENALCE.
- Chile: National Meteorological Service (DMC), Water General Directorate (DGA), Ministry of Agriculture (MINAGRI), Ministry of Environment (MMA) and Information, Monitoring and Prevention Unit at Ministry of Energy (MEN),
- Peru: National Hydrometeorological Service (SENAMHI), Ministry of Environment (MINAM), National Centre for Estimation, Prevention and Risk Disaster Reduction (CENEPRED), Regional Directorate for Agriculture (DRA) of Piura Regional Government, Ministry of Agriculture and Irrigation (MINAGRI), Ministry of Energy and Mining (MINEM) with Electric General Directorate.
PART IV: ENDORSEMENT BY GOVERNMENTS AND CERTIFICATION BY THE IMPLEMENTING ENTITY

A. Record of endorsement on behalf of the government

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.

<table>
<thead>
<tr>
<th>Name and Position</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>Gladys Santis, Adaptation Officer, Ministry of Environment, Government of Chile</td>
<td>27th December, 2017</td>
</tr>
<tr>
<td>Mabel Morales Saravia, General Director of Climate Change, Desertification and Water Resources, Ministry of Environment, Government of Peru</td>
<td>8th January, 2018</td>
</tr>
<tr>
<td>Angélica Maria Mayolo Obregon, Head of the Office of International Affairs, Ministry of Environment and Sustainable Development, Government of Colombia</td>
<td>11th January, 2018</td>
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</table>

B. Implementing Entity certification

Provide the name and signature of the Implementing Entity Coordinator and the date of signature. Provide also the project/programme contact person’s name, telephone number and email address.

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans.

**Colombia:** National Development Plan 2010-2014 (Prosperidad para todos), National Climate Change Adaptation Plan, Green Growth envelope strategy and Law 1715 of 2014 encourages the diversification of energy supply with other non-conventional renewable sources (wind, biomass, among others) and Nationally Determined Contribution (NDC).

**Peru:** National Strategy to Fight Desertification, National Plan on Disaster management (PLANAGERD), National Strategy on Water Resources, National Adaptation Plan for Agricultural Sector 2012-2021 and Nationally Determined Contribution (NDC) and Nationally Determined Contribution (NDC).

**Chile:** Climate Change National Action Plan 2017-2022, Climate Change Adaptation Plan Agriculture Sectoral Plan, Energy Agenda and Nationally Determined Contribution (NDC) 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.

Mary Power,
Director Development and Regional Activities Department
World Meteorological Organization
Signature

Implementing Entity Coordinator
<table>
<thead>
<tr>
<th>Date: 15th January, 2018</th>
<th>Tel. and email:</th>
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<tr>
<td></td>
<td>+41 22 730 8003</td>
</tr>
<tr>
<td></td>
<td><a href="mailto:mpower@wmo.int">mpower@wmo.int</a></td>
</tr>
<tr>
<td>Project Contact Person: Jean-Paul Gaudechoux and Jose Camacho</td>
<td>Tel. And Email: +41 79 514 4261; +41 730 22 8357, <a href="mailto:jpgaudechoux@wmo.int">jpgaudechoux@wmo.int</a>; <a href="mailto:jcamacho@wmo.int">jcamacho@wmo.int</a></td>
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