

# Project Performance Report

## Overview

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| Period of Report (Dates)                                            | 2/2/2022 - 2/1/2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Project Title                                                       | Enhancing adaptive capacity of Andean communities through climate services                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Project Summary                                                     | 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 Inter Tropical 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. |
| Database Number                                                     | AF00000124                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Implementing Entity (IE)                                            | World Meteorological Organization                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Type of IE                                                          | Multilateral Implementing Entity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Country(ies)                                                        | Regional (Chile, Colombia, Peru)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Relevant Geographic Points (i.e. cities, villages, bodies of water) | <ul style="list-style-type: none"> <li>• Chile: (i) The Aconcagua River Basin in central Chile and (ii) the Chilean electricity sector from Arica to Chiloé.</li> <li>• Colombia: (i) the Río de las Piedras Basin and (ii) the Los Cerrillos region, both in the Municipio of Popayán.</li> <li>• Peru: (i) The middle and upper basins of the Rímac River near Lima, and (ii) the Huallaga River basin in the eastern slopes of the Andes and the “Selva” region.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Name of Implementing Entity Focal Point                             | Mr. Raul Polato                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

## Project Milestones

|                                                                             |            |
|-----------------------------------------------------------------------------|------------|
| AFB Approval Date                                                           | 7/8/2019   |
| IE-AFB Agreement Signature Date                                             | 11/13/2019 |
| Start of Project/Programme                                                  | 2/2/2021   |
| Actual Mid-term Review Date (if applicable)                                 |            |
| Original Completion Date                                                    | 2/1/2025   |
| Revised Completion Date after approval of extension request (if applicable) | 2/1/2026   |

### Were there any approval condition for this Project?

Yes

| List each approval condition, if any, and report on the status of meeting them |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| Category of condition                                                          | Environmental and Social Safeguards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Condition or Requirement                                                       | <p>1. (Environment and Social Safeguards) Brief action plan describing how the project will take action in line with the Free, Prior and Informed Consent principle, to establish bottom-up participation and consultation of the Indigenous groups</p> <p>2. (Environment and Social Safeguards) Revision of the environmental and social impact assessment and plan to include a comprehensive risk identification and assessment in line with the ESP principles of the Fund, rather than by project activity.</p> <p>3. (Gender) Revision of the project outputs, as well as the results framework and budget to reflect the gender baseline assessment as a specific activity</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Current Status                                                                 | Condition met and cleared by the AFB Sec                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Planned actions, including a detailed time schedule                            | <p>1. Brief Action plan describing how each EE will comply with AF ESP and National regulation on Free, Prior and Informed Consent, was prepared and annexed to Project Document Annexes as Annex 6. "Countries Action Plans for Bottom-up Participation and Consultation with Indigenous Groups". The Annex reports how EE will proceed with a detailed national workplan and associated project outputs. During the period of PPR1 field activities with local communities have been limited by COVID19 restrictions. Nevertheless, in each country preparation activities were performed, such as the Identification of communities and coordination with national institution representing them, the invitation to participate to the project sent to communities' leaders/focal points, plus the the Registration of proposed Project activities at Ministerio del Interior and certification of presence of indigenous communities at the area, in the specific case of Colombia. National roadmaps will be implemented as soon as COVID19 measurers will be relieved, as they are particularly strict in the case of rural/remote communities and indigenous people.</p> <p>2. Such a revision was carried out, generating a "Revised Project Document" dated 7th of November 2019. It is annexed to project document as Annex 3</p> |

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|  | <p>"Environmental and Social Impact Assessment (ESIA) and Environmental and Social Risk Management Plan (ESMRP) for Project ENANDES (Chile, Colombia and Peru)". Both ESIA and ESRMP were carried out by TRANSFORMA, a Colombian non-profit organization that envisions and enables systemic changes towards making sustainable and regenerative development a reality, working hand in hand with EEs. As a result of the screening process this consultancy found that 12 out of the 15 principles do apply to the ENANDES project, and that 9 of the 12 applicable principles ought to be considered in the assessment stage. Results of both a desk phase and a consultation process were taken in to account when rating identified overarching risks. As a result of this process most of the identified overarching risks were considered moderate and each of them has different levels of impact and probability of occurrence. Detailed information can be found in the above mentioned Annex 3. The same document highlights "Measures to Avoid, Minimize or Mitigate Potential Risks" as well as "Monitoring Indicators and Institutional Arrangements" and a "Suggested methodology for screening and risk assessment for potential new activities that can result during the implementation of the project". 3. Such a revision was carried out, generating a "Revised Project Document" dated 7th of November 2019. In the new version of the project doc, a specific mention to Gender Baseline was added to Output 2.1 "Output 2.1: Knowledge and action networks have been implemented that facilitate the design, production, delivery, and use of climate information and services; relevant strategic partners have been engaged; capability gaps in strategic partners have been identified and addressed.</p> |
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**List (only) inception report/ extension request(s)/ MTR that have been prepared for the project and provide date(s) of submission for each**

"Notification of Delay of ENANDES Project Inception (submitted on 15th June 2020) Project Inception Workshop Report (submitted to Adaptation Fund on 12th March 2021) Project Progress Report Year 1 (submitted on 12 May 2022, final approval on 26 October 2022). Project Progress Report Year 2 (submitted on 21 August 2023, final approval on 08 February 2024) Request for DPS by WMO to DMC (approved by AF Board on 17 March 2023 by B.39-40/12)

**List the Website address (URL) of project**

<https://public.wmo.int/en/projects/enhancing-adaptive-capacity-of-andean-communities-through-climate-services-enandes>

| Project Contacts                              |             |                 |           |
|-----------------------------------------------|-------------|-----------------|-----------|
| National/Regional Project Manager/Coordinator | Name        | Email           | Date      |
| Coordinator                                   | Raul Polato | rpolato@wmo.int | 3/30/2023 |

|                     |                                                                                                            |                                                             |           |
|---------------------|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------|
| Government(s) DA    | Ms. Jenny Mager , Head of the Climate Change Office<br>Ministry of Environment of Chile                    | jmager@mma.gob.cl                                           | 2/4/2023  |
| Government(s) DA    | Ms. María Teresa Becerra Ramírez, Jefe de Oficina de Asuntos Internacionales                               | mtbecerra@minambiente.gov.co;<br>ARivera@minambiente.gov.co | 9/4/2019  |
| Government(s) DA    | Milagros Sandoval Diaz, Directora General de Cambio Climatico y Desertificacion<br>Ministerio del Ambiente | msandovald@minam.gob.pe                                     | 12/4/2019 |
| Implementing Entity | Christopher Hewitt                                                                                         | chewitt@wmo.int                                             | 6/19/2023 |
| Implementing Entity | Moyenda Chaponda                                                                                           | MChaponda@wmo.int                                           | 6/15/2023 |
| Executing Agency    | Reinaldo Gutiérrez Cisterna                                                                                | rgutierrezc@dgac.gob.cl                                     | 3/30/2022 |
| Executing Agency    | Jorge Giovanni Jiménez Sánchez                                                                             | jgjimenez@ideam.gov.co                                      | 3/7/2022  |
| Executing Agency    | Guillermo Baigorria                                                                                        | gbaigorria@senamhi.gob.pe                                   | 3/1/2022  |
| Executing Agency    | Yolanda González Hernández                                                                                 | y.gonzalez@ciifen.org                                       | 9/1/2023  |

## Financial Data

| Disbursement of AF grant funds                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cumulative total disbursement from Trustee to IE as of date (\$)       | \$6,688,800.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Estimated cumulative total disbursement from IE to EEs as of date (\$) | \$2,790,337.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Project disbursement rate (%)                                          | 90                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Project execution rate (%)                                             | 40.73                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Add any comments on AF Grant Funds                                     | Project expenditure (execution costs and activities) - US\$ 2,952,559.07 executed by IA and EEs according to following detail: DMC US\$ 179,879.81 IDEAM US\$ 667,914.23 SENAMHI US\$ 822,177.96 CIIFEN US\$ 431,750.59 WMO Execution Costs - US\$ 850,836.08 WMO Indirect costs US\$ 252,823.42 (WMO IE fees - US\$ 250,967.49 + Bank Charges US\$ 1,855.93 ) Balance unspent as at 1 February 2024 on the two disbursements: US\$ 1,363,245.9 Forecasted expenditures by 1 of February 2025: US\$ 1,897,018.22 |
| Investment Income (\$)                                                 | \$0.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Cumulative Investment Income since inception (\$)                      | \$0.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

## Expenditure Data

| Output                                                                                                                                                                                  | Amount (\$)  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Output 1.1: National climatic and hydrological data management systems have been enhanced and updated through improved/new tools and processes. WIGOS implementation has been supported | \$196,325.64 |
| Output 1.2: The characterization and communication of historical and recent states of climatic hazards have been improved through new/enhanced tools and processes                      | \$67,710.35  |
| Output 1.3: The production and dissemination of forecasts of high-impact weather has been                                                                                               | \$116,641.20 |

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| improved through new models and processes                                                                                                                                                                                                                                                                                                                                                   |              |
| Output 1.4: The production and dissemination of sub-seasonal to seasonal (S2S) predictions of regional climate and hydrological conditions has been improved through new models and processes                                                                                                                                                                                               | \$138,198.58 |
| Output 1.5: The access, processing and dissemination of multi-model projections of regional climate change (decadal to multi-decadal) from multiple institutions and models has been made easier by the development of new tools                                                                                                                                                            | \$6,016.54   |
| Output 1.6: Procedures and tools have been implemented by NMHSs to downscale seasonal forecasts and climate change projections in space/time. Global forecasts/projections have been calibrated for the ENANDES region                                                                                                                                                                      | \$1,345.00   |
| Output 2.1: (a) Knowledge and action networks have been implemented that facilitate the design, production, delivery, and use of climate information and services; relevant strategic partners have been engaged; (b) capability gaps in strategic partners have been identified and addressed; and (c) Gender Baseline Assessment undertaken and used to monitor progress in gender issues | \$72,487.70  |
| Output 2.2: The needs for tailored weather/climate information have been identified for target sectors in demonstration adaptation regions                                                                                                                                                                                                                                                  | \$22,075.09  |
| Output 2.3: Sectoral models have been used to “translate” observed/predicted weather/climate conditions into likely local impacts at demonstration sites                                                                                                                                                                                                                                    | \$7,062.09   |
| Output 2.4: Communication and knowledge management strategies have been developed for ENANDES. Relevant information about observed/predicted weather/climate hazards and their likely impacts are routinely communicated through appropriate channels                                                                                                                                       | \$26,216.52  |
| Output 2.5: Multiple requisites of a National Framework for Climate Services, such as identification of stakeholders and information needs and implementation of national dialogs, have been addressed by ENANDES, thus contributing to NFCS implementation                                                                                                                                 | \$90,243.86  |
| Output 3.1: The factors that determine vulnerability to climatic variability and change have been identified for the sectors and regions targeted                                                                                                                                                                                                                                           | \$36,032.00  |
| Output 3.2: Capacity building and outreach efforts have improved the accessibility, comprehension and use of climate and water information for risk management and adaptation among local stakeholders and communities                                                                                                                                                                      | \$107,431.49 |
| Output 3.3: Context-appropriate preparedness and adaptation plans and actions to reduce local damages from climate variability and change have been designed through participatory processes. Demonstration activities have been implemented and monitored to test those plans and actions                                                                                                  | \$67,544.87  |
| Output 3.4: Early-warning systems and enhanced processes for inter-institutional coordination have (i) strengthened national/local management of risks and (ii) reduced the negative impacts of droughts and floods for demonstration adaptation sites/sectors                                                                                                                              | \$64,210.00  |
| Output 3.5: Evaluations of the socio-economic benefits of ENANDES demonstration adaptation actions have been carried out                                                                                                                                                                                                                                                                    | \$8,084.38   |
| Output 3.6: Useful lessons on local adaptation actions have been provided by an active project tracking effort (complementary to M&E efforts) that allowed active adaptation of goals, outcomes and outputs throughout the project                                                                                                                                                          | \$28,154.69  |
| Output 4.1: Regional coordination activities like syntheses of surveys and needs, and regional expert meetings have been carried out to support the update of national climatic and hydrological data management systems, and the implementation of interoperable regional databases                                                                                                        | \$11,128.02  |
| Output 4.2: Regional coordination activities like consultations and expert meetings have been carried out to support and complement national strengthening of capacities for climate monitoring and prediction                                                                                                                                                                              | \$28,891.65  |
| Output 4.3: Regional coordination activities like consultations and expert meetings have been carried out to support and complement national strengthening of capacities for climate services production, dissemination and uptake                                                                                                                                                          | \$41,070.00  |

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| Output 4.4: Regional Technical Working Groups have been re-convened. revitalized or established. Active liaison with other ongoing projects in the region has achieved positive synergies and enhanced economic efficiency                                                             | \$87,191.88  |
| Output 4.5: An ENANDES Climate Services Toolkit (CST) has been implemented that is tailored to the previously determined operational needs of ENANDES NMHSs                                                                                                                            | \$23,653.08  |
| Output 4.6: Capacity building efforts for ENANDES have been (i) defined by ENANDES participants. (ii) coordinated by CIIFEN/RCC-WSA and (iii) jointly planned and implemented by countries and WMO Regional Training Centers. WMO Training Activities Division and other institutions. | \$51,215.76  |
|                                                                                                                                                                                                                                                                                        |              |
| IE fee (\$)                                                                                                                                                                                                                                                                            | \$130,590.70 |
| Execution cost (\$)                                                                                                                                                                                                                                                                    | \$208,088.40 |

### Planned Expenditure Schedule

| Output                                                                                                                                                                                                                                                                                                                                                                                      | Projected Cost (\$) | Estimated Completion Date |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------------|
| Output 1.1: National climatic and hydrological data management systems have been enhanced and updated through improved/new tools and processes. WIGOS implementation has been supported                                                                                                                                                                                                     | \$182,150.00        | 12/31/2024                |
| Output 1.2: The characterization and communication of historical and recent states of climatic hazards have been improved through new/enhanced tools and processes                                                                                                                                                                                                                          | \$173,178.00        | 12/31/2024                |
| Output 1.3: The production and dissemination of forecasts of high-impact weather has been improved through new models and processes                                                                                                                                                                                                                                                         | \$136,028.23        | 12/31/2024                |
| Output 1.4: The production and dissemination of sub-seasonal to seasonal (S2S) predictions of regional climate and hydrological conditions has been improved through new models and processes                                                                                                                                                                                               | \$87,713.10         | 12/31/2024                |
| Output 1.5: The access. processing and dissemination of multi-model projections of regional climate change (decadal to multi-decadal) from multiple institutions and models has been made easier by the development of new tools                                                                                                                                                            | \$57,283.50         | 12/31/2024                |
| Output 1.6: Procedures and tools have been implemented by NMHSs to downscale seasonal forecasts and climate change projections in space/time. Global forecasts/projections have been calibrated for the ENANDES region                                                                                                                                                                      | \$31,000.00         | 12/31/2024                |
| Output 2.1: (a) Knowledge and action networks have been implemented that facilitate the design. production. delivery. and use of climate information and services; relevant strategic partners have been engaged; (b) capability gaps in strategic partners have been identified and addressed; and (c) Gender Baseline Assessment undertaken and used to monitor progress in gender issues | \$109,480.80        | 12/31/2024                |
| Output 2.2: The needs for tailored weather/climate information have been identified for target sectors in demonstration adaptation regions                                                                                                                                                                                                                                                  | \$40,000.00         | 12/31/2024                |
| Output 2.3: Sectoral models have been used to “translate” observed/predicted weather/climate conditions into likely local impacts at demonstration sites                                                                                                                                                                                                                                    | \$13,241.00         | 12/31/2024                |
| Output 2.4: Communication and knowledge management strategies have been developed for ENANDES. Relevant information about observed/predicted weather/climate hazards and their likely impacts are routinely communicated through appropriate channels                                                                                                                                       | \$70,780.50         | 12/31/2024                |
| Output 2.5: Multiple requisites of a National Framework for Climate Services. such as identification of stakeholders and information needs and implementation of national dialogs. have been addressed by ENANDES. thus contributing to NFCS implementation                                                                                                                                 | \$94,018.40         | 12/31/2024                |

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| Output 3.1: The factors that determine vulnerability to climatic variability and change have been identified for the sectors and regions targeted                                                                                                                                          | \$24,233.00  | 12/31/2024 |
| Output 3.2: Capacity building and outreach efforts have improved the accessibility, comprehension and use of climate and water information for risk management and adaptation among local stakeholders and communities                                                                     | \$73,428.13  | 12/31/2024 |
| Output 3.3: Context-appropriate preparedness and adaptation plans and actions to reduce local damages from climate variability and change have been designed through participatory processes. Demonstration activities have been implemented and monitored to test those plans and actions | \$43,721.20  | 12/31/2024 |
| Output 3.4: Early-warning systems and enhanced processes for inter-institutional coordination have (i) strengthened national/local management of risks and (ii) reduced the negative impacts of droughts and floods for demonstration adaptation sites/sectors                             | \$194,800.00 | 12/31/2024 |
| Output 3.5: Evaluations of the socio-economic benefits of ENANDES demonstration adaptation actions have been carried out                                                                                                                                                                   | \$12,084.38  | 12/31/2024 |
| Output 3.6: Useful lessons on local adaptation actions have been provided by an active project tracking effort (complementary to M&E efforts) that allowed active adaptation of goals, outcomes and outputs throughout the project                                                         | \$73,229.69  | 12/31/2024 |
| Output 4.1: Regional coordination activities like syntheses of surveys and needs, and regional expert meetings have been carried out to support the update of national climatic and hydrological data management systems, and the implementation of interoperable regional databases       | \$8,872.63   | 12/31/2024 |
| Output 4.2: Regional coordination activities like consultations and expert meetings have been carried out to support and complement national strengthening of capacities for climate monitoring and prediction                                                                             | \$83,140.90  | 12/31/2024 |
| Output 4.3: Regional coordination activities like consultations and expert meetings have been carried out to support and complement national strengthening of capacities for climate services production, dissemination and uptake                                                         | \$57,736.75  | 12/31/2024 |
| Output 4.4: Regional Technical Working Groups have been re-convened, revitalized or established. Active liaison with other ongoing projects in the region has achieved positive synergies and enhanced economic efficiency                                                                 | \$119,263.15 | 12/31/2024 |
| Output 4.5: An ENANDES Climate Services Toolkit (CST) has been implemented that is tailored to the previously determined operational needs of ENANDES NMHSs                                                                                                                                | \$77,990.26  | 12/31/2024 |
| Output 4.6: Capacity building efforts for ENANDES have been (i) defined by ENANDES participants, (ii) coordinated by CIIFEN/RCC-WSA and (iii) jointly planned and implemented by countries and WMO Regional Training Centers, WMO Training Activities Division and other institutions.     | \$98,595.83  | 12/31/2024 |
|                                                                                                                                                                                                                                                                                            |              |            |
| IE fee (\$)                                                                                                                                                                                                                                                                                | \$161,246.55 |            |
| Execution cost (\$)                                                                                                                                                                                                                                                                        | \$35,000.00  |            |

| Actual co-financing (if the MTR or TE have not been undertaken this reporting period, do not report on actual co-financing) |        |  |
|-----------------------------------------------------------------------------------------------------------------------------|--------|--|
| Does this Project have Co-Financing ?                                                                                       | No     |  |
| How much of the total co-financing as committed in the Project Document has actually been realized? (\$)                    | \$0.00 |  |
| Estimated cumulative actual co-financing as verified during Mid-term Review (MTR) or Terminal Evaluation (TE). (\$)         | \$0.00 |  |
| Add any comments on actual co-financing in                                                                                  |        |  |

|                                                                                                                                                    |  |
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| particular any issues related to the realization of in-kind, grant, credits, loans, equity, non-grant instruments and other types of co-financing. |  |
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## Risk Assessment

| Identified Risks                                                                                       |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| List all Risks identified in project preparation phase and what steps are being taken to mitigate them |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Identified Risk                                                                                        | Current Status | Steps taken to mitigate risk                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Devaluation of currency in ENANDES countries                                                           | Moderate       | Funds received from Adaptation Fund are registered and maintained in CHF (in accordance to WMO financial regulations), with disbursements being made to partners in USD and converted into local currency as soon as they get to national bank accounts. Currency exchange fluctuations between the USD and CHF can have slight impacts on project funds. However the exchange rates between USD and local currencies show a more relevant variation over the last 10 therefore, the exchange rate risk for the Implementation Agreements with EEs, made in USD is high. To reduce the exchange rate risk for EEs, transactions will be converted and reporting to WMO using the weighted average rate of exchange corresponding to the ratio of USD sent by WMO / local currency received by EEs. Exchange risk will remain high for WMO being bound to CHF/USD UN exchange rate which can vary greatly along the implementation of the project. The trust fund created to manage the grant is permanently monitored and to mitigate currency fluctuation effects, disbursements to partners are aimed to be conducted as quickly as possible after receipt of funds from the Adaptation Fund. Note that the initial delay between receipt of funds from Adaptation Fund and disbursements being made to partners was due to the slow formalization of IAs due to national contingencies already described within this risk matrix. YEAR2: Keeping a limited number of transactions and being USD relatively stable in relation with local currencies, no relevant devaluation or loss in resources have been reported by project partners, so no additional mitigation measures were put in place. YEAR 3: Devaluation of national currency is not generating inconveniences nor loss of resources at national level. In some cases, such as Colombia, the fluctuation in exchange rates between USD and COP, generated increase in acquisitions power of annual disbursements. |
| Change of government or key officials in ENANDES countries that negatively affect the project          | Moderate       | Since the inception all of the three beneficiary countries have changed their maximum national authority after presidential elections and faced relevant turnover among executive officers in national institutions. Peru changed 2 times the President of SENAMHI but ENANDES Focal Points were able to keep the new executives informed and engaged. This limited the impacts on project implementation, avoiding disruptions to the execution but rather generating some delays in expenditures. Colombia also changed the Director of IDEAM, and with her several officers changed their functions within the institution. Most of ENANDES team members in IDEAM have signed a consultancy contract which needs to end with the financial year (31st of December). In order to avoid the risk of non-renewal of contracts and consequent loss of key professionals, WMO is hiring directly some of them to keep them in their functions and reduce the discontinuity of their contracts. In Chile, no changes occurred within DMC or ENANDES core team. YEAR 3: SENAMHI Peru changed Executive President in 2023. The new PR is an                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

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|                                                                                                                    |          | officer from the same institution with a long and relevant experience and is well informed and involved in project implementation. Nevertheless, the turnover generated a limited disruption of processes that was shortly recovered by project focal points.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Tensions between government and community institutions that – even if unrelated to project - affect implementation | Low      | The strict prevention and mitigation measures applied for the COVID19 pandemic have limited the involvement of local population in demonstration areas. No tensions are expected, but it will be clearer after the beginning of field operations. YEAR2: Field activities have started with local inceptions and information workshops. No tensions have been recorded during such events. YEAR 3: No tensions between government and local institutions have been detected since project inception.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Acceptance of the project slows down project inception.                                                            | Low      | YEAR 1: During 2021 the possibility of implementing a prompt and permanent agenda of field/community visit was complicated by the COVID19 contagion prevention measures still in place in the ENADES countries and even more restrictive at rural community level. The planning of community level inceptions started lately at the end of first year. YEAR 2: During 2022, with the release of COVID19 prevention restrictions, fields activities and community engagement have started, and project partners registered a very positive attitude towards the project and ease in beneficiaries' involvement. YEAR 3: As COVID19 restrictions were removed, the agendas of field activities could start and follow national workplans. Community engagement has been monitored and positively evaluated during field visits. No acceptance constraints were detected.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Communities in demonstration adaptation areas lose interest in the project.                                        | Low      | During 2021 it was not feasible to visit or involve local communities due to COVID 19 prevention measures No loss of interest was reported among beneficiaries as of PPR3 due date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Tension between ethnic communities or with peasant organizations affects project implementation.                   | Low      | Not reported along implementation as of PPR3 due dates.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Lack of coordination between participating local, regional, and national entities.                                 | Moderate | The strict prevention and mitigation measures applied for the COVID19 pandemic have limited the visits to and involvement of local population in demonstration areas during first year and part of year 2. After the release of COVID19 restrictions all planned activities could be carried out at all levels, achieving the engagement and participation of institutions and population at field level in demonstration areas. As soon as local communities and producers resulted accessible and no restrictions persisted, EEs (National Hydro-Met Services) could sign MoU with other institutions with relevant mandate for the implementation of the Climate Service Value Chain. In Colombia, IDEAM signed an agreement with the Water Utility of Popayan that through its not-for-profit foundation (Fundacion Rio Piedra) was already working with beneficiaries since 1995, facilitating community access and engagement. IDEAM shared costs and responsibility with local civil society and with the Extension Service of the Ministry of Agriculture. These three actors could attend the local Multistakeholder Participatory Roundtables (Mesas Técnicas Agroclimáticas) to bring relevant information and prediction on weather and climate (bulletins) "converted" into accesible communications and transmitted through participatory games to family farmers with whom they assessed possible negative impacts on production and viable mitigation |

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|                                                                               |          | measures or adaptation plans. All the stakeholders involved in the climate service value chain formalized and implemented a collaboration protocol end to end, from the national institution (information provider) to the subnational "translator" (extension service and community leader) to the final user (farmer). In Perú and in Chile the implemented protocol in San Martin and in Valparaiso was quite the same, National Hydro-Met Service formalized agreement and worked with the National Extension Service and the Institute for Agricultural Research to inform leaders of local Communities or Association of Producers. In Chile, DMC was also capable to sign and MoU with the Ministry of Energy and carry out applied research together to developed new climate services for the benefit of energy provision. |
| Delays of contract approvals and release of funds to implementation partners. | Moderate | Changes of high-level executives and election processes in all ENANDES countries have slowed down Implementing Arrangement Negotiations, so at the end of first year one of the 4 partners haven't signed the Arrangement yet, even though the content is already agreed. YEAR2: All the partners received their first tranche of funding and most of them either spent or committed more than 70% during reporting period. Second tranche has been received and already disbursed to partners, so further delays in expenditures and implementation are not foreseen. YEAR 3: Budget transfer and execution did not face any delay during reporting period.                                                                                                                                                                        |

### Critical Risks Affecting Progress (Not identified at project design)

**Are there any critical risks with a 50% or > likelihood of affecting progress of project? Yes**

Identify Risks with a 50% or > likelihood of affecting progress of project

| Identified Risk                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Current Status | Steps taken to mitigate risk                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| Administrative barriers for hiring experts and purchases directly by EEs have been encountered due to national rules or specific contingencies such as presidential election process. The issue is also applicable to potential agreements between DMC and international institutions. Due to national rules, it is not possible for DMC to elaborate bilateral agreements with international institutions using the ENANDES budget that is already in DMC accounts. | High           | We have taken this issue into account and to overcome this inconvenience in years 2-4 of the project-.WMO will coordinate the needed authorizations with AF Board and amend IAs accordingly with EEs in order to execute part of national budget to hire experts and sign/manage agreement/contracts with international strategic partners. YEAR 3: WMO kept the support to EEs assuming directly the management of some agreements with external entities, such as the case of IRI on behalf of DMC of Chile. |
| Lack of participation of key sectorial national institutions that may limit the interinstitutional articulation at national                                                                                                                                                                                                                                                                                                                                          | High           | DGA declared limited capacities and resources to be actively engaged in the project. This is mainly due to concerns on taking any steps into operations dealing with "water management" at field level with potential political questioning/controversies. The formal procedure for WMO is to inform, engage and involve the DGA Hydrology Advisor                                                                                                                                                             |

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| level and the decision-making processes in specific sectors (Case of General Directorate of Water - DGA in Chile) | at WMO. Three different official communications from the Director of WMO regional Office for the Americas, ENANDES Project Manager and National PR, didn't get any response. The risk is to have a very soft approach on water sector, since DGA is the National Authority. In coordination with NMHS, IE decided to escalate the level of communication, informing DGA Director (Mit Measure 1) , If it won't work IE will escalate to the Ministry of Infrastructure (Mit. Measure 2). If even the escalation won't be effective, we will call for a sectoral workshop creating a roundtable focused on hydrometeorology, and trying to make other national institutions to liaise for DGA participation. YEAR2: During reporting period, several intents have been made to renew the interest of DGA for the project. Unfortunately none of them had positive outcomes, so DMC after generating the Energy Roundtable and the Participatory Agroclimatic Roundtable, proposed updated its workplan addressing water sector with a focus on hydrometeorology and strengthening the relevance of related variables rather than on "water resource management". YEAR 3: Even though the communication with DGA in Chile improved in the end of the third year and WMO achieved to hold meetings with some officers, a direct involvement of the institution in the implementation of activities was not possible. DMC updated its workplan to address hydrology sector, focusing on monitoring hydro-meteorologic variables and hazards which stays fully within its mandate. |
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## Risk Measures

Were there any risk mitigation measures employed during the current reporting period? If so, were risks reduced? If not, why were these risks not reduced?

The Implementing Entity has been conducting regular risk monitoring with the identification of mitigation measures since the inception of the project. The results are permanently tracked and reported in WMO's internal monitoring system/Project risk Matrix. Risk mitigation measures as indicated above will be executed as needed, ensuring that the likelihood of occurrence of any risks will decrease compared to the evaluation at the time of project submission and did not affect project implementation. The implementation of first-year activity is severely impacted by the Covid-19 Pandemic situation and delays in decision making processes/agreement negotiations and operations are relevant. Nevertheless, vaccination campaigns and the reduction of pandemic impacts on global and national health systems, has been permitting a higher degree of mobility by the end of the year, allowing the elaboration of missions and training schedule will be perform at the beginning of Year 2 . The management of risks has been facilitated through close and open communications with and regular interaction among project partners at the regional and national level. YEAR2: Significant effort has been done to foresee with EEs any further needs for supporting budget execution by WMO, as to say providing DPS to EEs. The process already identified specific needs that have been analyzed in order to provide all needed documentation to AF Board for a RDPS. At the time of preparing PPR2, IDEAM was waiting for the enrolment of the new Executive Director with whom preparing the request for endorsement to National Designated Authority. YEAR 3: IDEAM started the preparation of all the needed documentations to request DPS to WMO. As soon as the request will be endorsed by NDA, WMO will submit it to AFB for formal approval.

## ESP Compliance

### Section 1: Identified ESP Risk Management

| Was the ESP risks identification complete at the time of funding approval? Yes                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| 1.Compliance with the law                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?                                                                                                                                                  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)                        | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| List the identified impacts for which safeguard measures are required (as per II.K/II.L)                                                                                                                                                     | Weak inter-institutional coordination and articulation for the project design and implementation (both amongst national institutions and between national and sub-national levels) causing weak alignment of the ENANDES project with national regulatory frameworks in Peru, Chile and Colombia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity. | 1.Formalization of the project governance including: I) Identification of regional, national, subnational and local strategic partners and their roles in project, II) establishment of participatory and decision-making instances, III) Identification of coordination mechanisms with existing processes related to climate change management, IV) identification and formalization of working agreements in order to ensure constant and articulated participation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| List the monitoring indicator(s) for each impact identified.                                                                                                                                                                                 | _One (1) document (inception report), as result of the inception workshop with the including main findings regarding roles and responsibilities, as well as the organigram and the terms of reference for different project instances and roles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| State the baseline condition for each monitoring indicator                                                                                                                                                                                   | - 1 Document with: Terms of reference of Governance bodies: Technical Committee, Steering Committee and External Advisory Board                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Describe each safeguard measure that has been implemented during the reporting period                                                                                                                                                        | 1 Document on Project Governance approved by Steering Committee. In 2022, with the formalization of the scale up of ENANDES to ENANDES+, including 3 more countries a new Governance mechanism was designed and approved in November 2023 by Project Steering Committee that from that moment on included the Directors of 7 National Hydro-Met Services - NMHSs (Colombia, Chile, Peru, Ecuador, Bolivia, Argentina and Switzerland), the Coordinators of 4 Regional Centres (2 Regional Climate Centers and 2 Regional Training Centers) and the Regional Coordinators of the Swiss Agency for Cooperation and Development based in Lima. As the Swiss contribution introduced resources to design and implement a regional articulation and "twinning" mechanism to address existing technical capacity gaps among NMHSs, the Technical Committee was replaced by a "Core Team - CT" where EEs have been represented by project focal points and specific technical officers. Core Team is meeting monthly, and each EE is represented for taking operational |

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|                                                                                                                                                                                                                       | <p>decision and solve possible problems. Steering Committee and CT have been used as decision making bodies for project implementation and to guide and regulate the interaction among EEs. Regarding the implementation of the project at national level, first of all each EE, being part of the public administration is subjected to its own National Law and Regulations. That being said the needs for articulating several actors from the national to subnational to finally the local level was addressed by signing specific interinstitutional agreement or MoU between the EE and the strategic allies. In the case of Colombia, IDEAM signed a MoU with the Ministry of Agriculture, with the Municipality of Popayan and with the Popayan Aqueduct plus an Implementing Agreement with its not-for-profit foundation to engage with local communities and carry out activities. In Peru, SENAMHI signed MoU with the Institute for Agricultural Innovation -INIA and with the Ministry of Agricultural Development and Irrigation. In Chile, DMC signed an MoU with the Ministry of Energy and with the Ministry of Agriculture in order to coordinate the activities. The participatory approach at local and community level was guaranteed by the conformation of Technical Roundtables replicating FAO-CGIAR methodology of the Technical Agro-Climatic Roundtables. Such roundtables are explicitly promoted by the Colombian and the Peruvian Agricultural and Climatic policies as the main decision-making instance where information providers meet final users/sectorial representants and plan any local climate action. Chile adapted the same approach to engage with Energy Authority, Providers and users in order to design new climate services and promote research and innovation in collaboration with the University of Santiago.</p> |
| Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)                                                                                                                  | Coordination and articulation within project partnership is outstanding even without specific protocols, any residual risk is mainly due to other national institution rather than Executing Entities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Describe remedial action for residual impacts that will be taken                                                                                                                                                      | Any single case of lack of support/engagement will be evaluated and specific measures will be put in place. An escalation protocol will be elaborated in case of limited capacity of lobby/liaise at national level.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>2.Access and equity</b>                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?                                                                                                                           | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L) | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

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| List the identified impacts for which safeguard measures are required (as per II.K/II.L)                                                                                                                                                     | Low availability and access to climate services developed in the framework of the ENANDES project due to: 1. Availability; i) insufficient mechanisms to exchange quality information among regional, national and subnational levels. 2. Access; i) lack of context-specific communication channels to facilitate close interactions between scales, ii) unclear information /inability to bridge the gap between information developed by scientists and the practical needs of end-users..                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity. | 1. Establish, socialize and agree with relevant stakeholders of the project at the regional, national, subnational and local level, clear protocols for information exchange, including, when necessary, the identification of existing gaps and measures to overcome them (e.g. confidentiality agreements) 2. Conduct a characterization of context specific communication channels in order to define which means of communication are more frequently and effectively used by community stakeholders in the specific intervention area. This document should serve as an input for the communication strategy of the project.                                                                                                                                                                                                                                                                                                                                                                                                                |
| List the monitoring indicator(s) for each impact identified.                                                                                                                                                                                 | _One (1) document containing the protocols and agreements for use and management of the information generated within the framework of the ENANDES project. The document should contribute to the identification of gaps and good practices for exchanging information at the ENANDES project, considering context specific conditions for each of the three countries.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| State the baseline condition for each monitoring indicator                                                                                                                                                                                   | No specific protocol available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Describe each safeguard measure that has been implemented during the reporting period                                                                                                                                                        | Each project partner is subject to specific national regulations that guarantee the exchange of data and information. - Chile/DMC: is currently working on a data policy. In addition, as a public entity DMC is governed by Law 20285 on Access to Public Information and the Principle of Transparency, so public bodies have the obligation to facilitate public access to information. These policies include protocols and rules for information sharing and delivery between institutions and with final users, identifying gaps and best practices - Colombia/IDEAM: Is aligned with the guidelines of IDEAM's Integrated Management System (SGI), Generation of hydrometeorological data and information for decision making (Data Policy), implementation of quality controls for the network of stations in the ENANDES demonstration areas. With the support of the Project, IDEAM carried out the Formulation of the WIGOS Plan 2023 and the implementation for 2024, with supervision by the IDEAM meteorological group and general |

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|                                                                                                                                                                                                                                              | management. - Peru / SENAMHI: During 2022, an assessment on communications in the pilot areas and strategy proposals were made. During 2023 SENAMHI carried out activities to improve communication and dissemination of information on Weather, Water and Climate in both pilot areas. Technical Agroclimatic Roundtables (MTAs) and Risk Management RoundTable (MGR) have been used as participatory users interface platforms in order to achieve dissemination of information.                                                                                                                                                                                                       |
| Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)                                                                                                                                         | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Describe remedial action for residual impacts that will be taken                                                                                                                                                                             | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>3.Marginalized and vulnerable Groups</b>                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?                                                                                                                                                  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)                        | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| List the identified impacts for which safeguard measures are required (as per II.K/II.L)                                                                                                                                                     | 1. Insufficient participation of key stakeholders due to i) mistrust between national and subnational actors, ii) lack of participatory platforms / mechanisms, and iii) gaps in existing mappings of key stakeholders and beneficiaries. 2. Unexpected uses of information produced in the context of the ENANDES Project could eventually result in new or increased socio- environmental conflicts (INDIRECT)                                                                                                                                                                                                                                                                         |
| List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity. | 1. Exhaustive mapping of beneficiaries based on their main needs and uses of information and on their relationship to main factors of vulnerability 2. To put together a baseline on previous experiences on producing weather/climate information highlighting associated stakeholders, interests and conflicts. 3. Installation of an auditing unit composed by land use planning authorities, natural protected areas authorities and regional or local authorities responsible of adaptation and GHG mitigation measures in each sector in the areas of intervention, among other relevant actors to comment and approve the climatic services to be provided within ENANDES project |
| List the monitoring indicator(s) for each impact identified.                                                                                                                                                                                 | _Number of documents relating lessons learnt from previous experiences on producing climate/weather information and the kind of projects and interventions developed afterwards using such information/data _Baseline and monitoring system of land uses, deforestation levels, natural protected areas, soil erosion, their main drivers and the enabling conditions for mitigation and adaptation measures.                                                                                                                                                                                                                                                                            |

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| State the baseline condition for each monitoring indicator                            | No systematization of lessons learned available. No State of Land use change at local level available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Describe each safeguard measure that has been implemented during the reporting period | <p>During reporting period different documents were collected, reviewed and/or prepared: - Chile: 5 main documents were identified: 1) CIREN/MINAGRI/FIA: Estudio Incorporación de nuevas especies productivas sobre la base de modelaciones climáticas a 15, 30 y 45 años en la cuenca del río Aconcagua. 2) NIA: Principales limitantes que presentan suelos del valle de Aconcagua para el cultivo de la vid de mesa. 3) Universidad de Chile: Indicadores para el monitoreo de la calidad del suelo en áreas periurbanas. Valle de Quillota, cuenca del Aconcagua, Chile. 4) CIREN: Determinación de la erosión actual y potencial de los suelos de Chile Región de Valparaíso. 5) Municipalidad de San Felipe: Plan Regulador Comunal de San Felipe. - Colombia: a Document with "Systematization of the Lessons Learned in the ENANDES Project" was prepared by IDEAM project team. During 2023 the document has been update with new guidance, replacing the idea of a simple compilation, the decision was rather to systematize comprehensively how climate services have been implemented in the framework of ENANDES according to its value chain and in relation to the project's cross-cutting approaches: gender, communication, and governance, aligned with the stages of preparation, formulation, and execution. - Peru: There was no record of lessons learned with the use of TAC information previously. During 2023 SENAMHI selected previous experience and drafted a new document with lessons learned from CLIMANDES and Pachayatiña/Pachayachay Projects, which will be finalized in 2024. During Year 3, significant progress has been made not only in documenting previous experiences but also in operationalizing the identification, participation and benefit-sharing mechanisms for marginalized and vulnerable groups across demonstration sites. In Colombia, this is evidenced by the participation of 246 stakeholders in early engagement processes, including 57 Indigenous people, as well as targeted engagement through 11 consultation meetings with rural communities and women's groups. These processes have been complemented by 23 formal agreements with local communities and the active involvement of 18 community organizations, ensuring that engagement is structured and responsive to local governance systems. Participation has been further strengthened through capacity-building and co-design activities tailored to different vulnerability profiles. For example, in Colombia, 150 participants (with gender, age and ethnicity disaggregation) have been engaged in field schools</p> |

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|                                                                                                                                                                                                                                              | and workshops, including 60 Indigenous participants and representation of youth and elderly groups. Importantly, 75 women and 150 members of peasant and Indigenous communities have been trained in accessing and interpreting climate information produced by ENANDES, addressing differentiated access needs. The implementation of 109 local adaptation measures, 44 of which are led by women and 20 directly involving women heads of household, demonstrates a concrete linkage between participation processes and equitable benefit distribution. In addition, the project has strengthened its analytical and methodological approach to engagement by reviewing over 30 documents in Colombia and relevant studies in Chile and Peru, as well as incorporating lessons learned into ongoing systematization processes. These efforts contribute to identifying effective participation conditions and tailored engagement channels for vulnerable groups, in line with the mitigation measures defined at the design stage. Moving forward, the project will continue to consolidate these approaches, including the development of a dedicated synthesis document on good practices for engagement of marginalized groups, as planned under upcoming systematization activities. |
| Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)                                                                                                                                         | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Describe remedial action for residual impacts that will be taken                                                                                                                                                                             | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>4.Human rights</b>                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?                                                                                                                                                  | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| List the identified impacts for which safeguard measures are required (as per II.K/II.L)                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| List the monitoring indicator(s) for each impact identified.                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| State the baseline condition for each monitoring indicator                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Describe each safeguard measure that has been implemented during the reporting period                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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| Describe remedial action for residual impacts that will be taken                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>5. Gender equality and women's empowerment</b>                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?                                                                                                                                                  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)                        | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| List the identified impacts for which safeguard measures are required (as per II.K/II.L)                                                                                                                                                     | Lack of a clear gender perspective in the ENANDES projects as a result of it not being explicitly included in the results framework in terms of associated targets, indicators or baselines.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity. | 1- Incorporation of specific gender-related activities, targets and indicators in the results framework of the ENANDES Project, following WMO Gender Equality Policy 2 -Consolidation of a "gender equity committee" in each one of the implementing countries                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| List the monitoring indicator(s) for each impact identified.                                                                                                                                                                                 | 1 - Number of explicit references to gender equity included in the results framework 2 - Number of "Gender equity committees" created for the ENANDES Project                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| State the baseline condition for each monitoring indicator                                                                                                                                                                                   | No data on gender perspective applied to national operation and projects                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Describe each safeguard measure that has been implemented during the reporting period                                                                                                                                                        | 1 - As reported in the Gender Policy Compliance the project logframe incorporate specific gender responsive elements, such as activities and indicators. Gender specific indicators are integrated in the monitoring of: Outputs 2.1 and 2.4, OUTCOME 3, Outputs 3.2, 3.3 and 3.4. Inclusion of specific activities addressing gender sensitive and responsive implementation: 2.1.2: Secure the active engagement in ENANDES activities of key network members through formal institutional arrangements (strategic partnerships) or other commitments. Pay special attention to gender, age, income and ethnicity dimensions. 2.4.2 Identify preferred media and information channels for dissemination of information about weather and climate, warnings, etc. select appropriate media to reach different genders, age groups, ethnic groups or any other dimension that might require different channels. 2.4.7 Gender aspects in communication 3.2.5 Gender specific capacity building 3.3.5 Develop actions to ensure the sustained engagement of women, elder, poor and vulnerable communities in all adaptation actions. 2 - The consolidation of National Gender Committees are in process. Most of engaged authorities that are collaborating and participating in the project do have Gender Policies, or Guidelines or institutional protocols and roundtables. For instance: - SENAMHI has a gender and interculturality |

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|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                      | <p>committee created in 2019 and its members are part of the ENANDES technical group. - In Colombia, IDEAM is subjected to the sectoral guidelines for the application of the gender approach in planning and budgeting, monitoring and analysis of progress in indicators as part of the National Policy on Climate Change of the Ministry of Environment and Sustainable Development (Minambiente) . Besides National Plan for Adaptation to Climate Change "ADAPTING IS A MATTER OF GENDER" constitute a serie of recommendations for integrating the gender perspective in the management of adaptation to climate change. IDEAM is also collaborating with 5 other authorities with specific gender equality policies, such as the Ministry of Agriculture and Rural Development (MADR) and its Vice-Ministry of Rural Development that count with a Rural Women's Directorate, which is in charge of implementing Law 731 of 2002 "Rural Women Law" and the Ministry of Health and Social Protection that has the mandate to apply the National Policy on Gender Equity for Women, led by the Presidential Advisory Office for Women's Equity. - In Chile, 15 different National Bodies/Ministries have a gender equality policy. DMC has established a tight collaboration with the Ministry of Agriculture and the Ministry of Energy. Both these institutions hold a Gender Policy and implement related activities. For instance, the first carries out capacity building on Gender and Agriculture and the latter developed a Workshop on Gender Wage Gaps, applying a Guide on gender and energy for trainers and managers of public policies and projects and a Manual to promote gender equality in the supply chain in its operations and capacity building. Besides this close institutions, DMC is also coordinating with other national bodies that beholds gender addressing policies or strategies: the Ministry of Science and Technology, Knowledge and Innovation comply with the National Policy on Gender Equality in Science, Technology, Knowledge and Innovation; The Ministry of Defense endorse the Second National Action Plan for the Implementation of the United Nations Security Council Resolution on Women, Security and Peace; the Ministry of Mining leads a Gender Committee of the Under-Secretariat of Mining; Ministry of Public Works integrates a Gender Equity, Inclusion and Non-Discrimination Unit.</p> |
| Describe the residual impact for each impact identified - if any - using the monitoring indicator(s) | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Describe remedial action for residual impacts that will be taken                                     | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>6.Core labour rights</b>                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Are environmental or social risks present as per table                                               | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

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| II.K (II.L for REG) of the proposal?                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                 |
| During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)                        |                                                                                                                                                                                                                                                                                                                                                 |
| List the identified impacts for which safeguard measures are required (as per II.K/II.L)                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                 |
| List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity. |                                                                                                                                                                                                                                                                                                                                                 |
| List the monitoring indicator(s) for each impact identified.                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                 |
| State the baseline condition for each monitoring indicator                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                 |
| Describe each safeguard measure that has been implemented during the reporting period                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                 |
| Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                 |
| Describe remedial action for residual impacts that will be taken                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                 |
| <b>7.Indigenous people</b>                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                 |
| Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?                                                                                                                                                  | Yes                                                                                                                                                                                                                                                                                                                                             |
| During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)                        | Yes                                                                                                                                                                                                                                                                                                                                             |
| List the identified impacts for which safeguard measures are required (as per II.K/II.L)                                                                                                                                                     | Indigenous and peasant beneficiary families not adequately informed and engaged in order to access the range of the project's benefits.                                                                                                                                                                                                         |
| List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity. | To document evidences, lessons learned and good practices of consultations to the rural communities with which the Project is going to develop activities.                                                                                                                                                                                      |
| List the monitoring indicator(s) for each impact identified.                                                                                                                                                                                 | 1- Number of meetings held for consultations to the rural communities with which the project is designing/developing activities. 2- One (1) document with good participation practices and lessons learned from indigenous and peasant communities at co-design of climate change activities within the framework of national climate services. |
| State the baseline condition for each monitoring indicator                                                                                                                                                                                   | No meetings have been carried out on a regular based before project inception                                                                                                                                                                                                                                                                   |
| Describe each safeguard measure that has been implemented during the reporting period                                                                                                                                                        | After the release of COVID19 prevention measures the opportunities to hold consultations and meetings at institutional and field level increased. Especially during the second semester on 2022 it was possible to                                                                                                                              |

schedule face to face meetings at national and at regional level. To date Executing Entities carried out a total of 88 Meetings (37 in Chile, 41 in Colombia and 10 in Peru) - In Chile DMC held 13 meetings were hold and managed remotely through on-line platforms: 7 meeting with the Technical Working Group on Energy, promoted and established by the project and facilitated by the Ministry of Energy with the participation of energy providers and consumers associations/committees. 6 meetings with final users of agrometeorological information at Quillacota and Llay Llay, in addition to kick-off of agrometeorological local activities (on-line). During 2023 (YEAR 3), DMC carried out 24 new e meetings to be added to the former 13: 8 in the Pilot Area of Val Paraiso (7 addressing Agriculture and 1 Energy sectors) 13 in the Metropolitan Area of Santiago (5 on Climate Change, 4 on Agrometeorology, 1 on Hydrology, 2 on Observation Network and 1 on Energy) 3 Remote meetings focused on Agriculture and Energy. - In Colombia IDEAM finalize a Systematization on Lessons Learned during project implementation and held 30 meetings with local stakeholders focused on the Agro and Water Sectors. 17 Meeting were hold addressing Agrometeorology: four (4) meetings in the municipality of Totoró, Palacé sub-basin, three (3) meetings, in the municipality of Puracé, Vinagre sub-basin and ten (10) in the municipality of Popayán, Piedras, Molino and Pisoje sub-basins. On Water sector 13 meetings have been scheduled and carried out: two (2) in the municipality of Totoró, Palacé sub-basin, two (2) in Puracé, Vinagre sub-basin and nine (9) in Popayán, Piedras, Molino and Pisoje sub-basins. During 2023 (YEAR 3), IDEAM conducted 24 new meetings: 13 meetings in the municipality of Popayán with indigenous and peasant communities from the Piedras, Pisoje, and Molino sub-basins (Water/Agro). (5 sessions of the “Mesas Agroclimáticas Comunitarias ENANDES”, 2 sessions of the “Escuelas de Campo ENANDES”, 3 Community SAT training sessions, 3 meetings to formulate project profile proposals). 7 meetings in the municipality of Totoró with indigenous and peasant communities from the Palacé sub-basin (Water/Agro). (2 sessions of “Mesas Agroclimáticas Comunitarias ENANDES”, 1 session of the “Escuelas de Campo ENANDES”, 1 Community SAT training session, 3 meetings to formulate project profile proposals). 4 meetings in the municipality of Puracé with indigenous communities from the Vinagre sub-basin (Water/Agro). (2 sessions of “Mesas Agroclimáticas Comunitarias ENANDES”, 1 session of “Escuela de Campo ENANDES”, 1 meeting to formulate project profile proposals). - In

|                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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|                                                                                                                                                                                                                                              | <p>Peru SENAMHI held three (3) meetings with the indigenous population of pilot areas and organized a fair during the last quarter of the year, achieving to sign a memorandum with indigenous representatives in the area of San Martin in order to commit their participation to the project and the access to any information or output generated by ENANDES. During 2023 (YEAR 3), SENAMHI carried out 7 Meetings/Workshops: 4 workshops for agrometeorological service proposals with avocado and custard apple growers in Santa Eulalia, Rimac; 3 workshops in San Martin, strengthening the capacities of corn growers in the districts of Picota and Bellavista and coffee growers in Jepelacio. -In Chile, engagement has so far focused on national and sectoral stakeholders, including a National Kick-Off workshop with 57 participants and technical exchanges such as agroclimatic and energy-focused meetings. While Indigenous-specific engagement was not explicitly reported in Year 3, the project recognizes this gap and confirms that upcoming activities at the territorial level will explicitly incorporate Indigenous communities present in the Aconcagua basin. This will build on existing vulnerability assessments and stakeholder mapping exercises, ensuring that Indigenous Peoples are engaged through culturally appropriate mechanisms and that their knowledge and priorities are reflected in the design and implementation of local adaptation measures.</p> |
| Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)                                                                                                                                         | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Describe remedial action for residual impacts that will be taken                                                                                                                                                                             | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>8.Involuntary resettlement</b>                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?                                                                                                                                                  | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| List the identified impacts for which safeguard measures are required (as per II.K/II.L)                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| List the monitoring indicator(s) for each impact identified.                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| State the baseline condition for each monitoring indicator                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

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| Describe each safeguard measure that has been implemented during the reporting period                                                                                                                                                        |    |
| Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)                                                                                                                                         |    |
| Describe remedial action for residual impacts that will be taken                                                                                                                                                                             |    |
| <b>9. Protection of natural habitats</b>                                                                                                                                                                                                     |    |
| Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?                                                                                                                                                  | No |
| During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)                        |    |
| List the identified impacts for which safeguard measures are required (as per II.K/II.L)                                                                                                                                                     |    |
| List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity. |    |
| List the monitoring indicator(s) for each impact identified.                                                                                                                                                                                 |    |
| State the baseline condition for each monitoring indicator                                                                                                                                                                                   |    |
| Describe each safeguard measure that has been implemented during the reporting period                                                                                                                                                        |    |
| Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)                                                                                                                                         |    |
| Describe remedial action for residual impacts that will be taken                                                                                                                                                                             |    |
| <b>10. Conservation of biological diversity</b>                                                                                                                                                                                              |    |
| Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?                                                                                                                                                  | No |
| During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)                        |    |
| List the identified impacts for which safeguard measures are required (as per II.K/II.L)                                                                                                                                                     |    |
| List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity. |    |
| List the monitoring indicator(s) for each impact identified.                                                                                                                                                                                 |    |
| State the baseline condition for each monitoring indicator                                                                                                                                                                                   |    |
| Describe each safeguard measure that has been                                                                                                                                                                                                |    |

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| implemented during the reporting period                                                                                                                                                                                                      |    |
| Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)                                                                                                                                         |    |
| Describe remedial action for residual impacts that will be taken                                                                                                                                                                             |    |
| <b>11.Climate change</b>                                                                                                                                                                                                                     |    |
| Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?                                                                                                                                                  | No |
| During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)                        |    |
| List the identified impacts for which safeguard measures are required (as per II.K/II.L)                                                                                                                                                     |    |
| List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity. |    |
| List the monitoring indicator(s) for each impact identified.                                                                                                                                                                                 |    |
| State the baseline condition for each monitoring indicator                                                                                                                                                                                   |    |
| Describe each safeguard measure that has been implemented during the reporting period                                                                                                                                                        |    |
| Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)                                                                                                                                         |    |
| Describe remedial action for residual impacts that will be taken                                                                                                                                                                             |    |
| <b>12.Pollution prevention and resource efficiency</b>                                                                                                                                                                                       |    |
| Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?                                                                                                                                                  | No |
| During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)                        |    |
| List the identified impacts for which safeguard measures are required (as per II.K/II.L)                                                                                                                                                     |    |
| List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity. |    |
| List the monitoring indicator(s) for each impact identified.                                                                                                                                                                                 |    |
| State the baseline condition for each monitoring indicator                                                                                                                                                                                   |    |
| Describe each safeguard measure that has been implemented during the reporting period                                                                                                                                                        |    |

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| Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)                                                                                                                                         |    |
| Describe remedial action for residual impacts that will be taken                                                                                                                                                                             |    |
| <b>13.Public health</b>                                                                                                                                                                                                                      |    |
| Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?                                                                                                                                                  | No |
| During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)                        |    |
| List the identified impacts for which safeguard measures are required (as per II.K/II.L)                                                                                                                                                     |    |
| List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity. |    |
| List the monitoring indicator(s) for each impact identified.                                                                                                                                                                                 |    |
| State the baseline condition for each monitoring indicator                                                                                                                                                                                   |    |
| Describe each safeguard measure that has been implemented during the reporting period                                                                                                                                                        |    |
| Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)                                                                                                                                         |    |
| Describe remedial action for residual impacts that will be taken                                                                                                                                                                             |    |
| <b>14.Physical and cultural heritage</b>                                                                                                                                                                                                     |    |
| Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?                                                                                                                                                  | No |
| During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)                        |    |
| List the identified impacts for which safeguard measures are required (as per II.K/II.L)                                                                                                                                                     |    |
| List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity. |    |
| List the monitoring indicator(s) for each impact identified.                                                                                                                                                                                 |    |
| State the baseline condition for each monitoring indicator                                                                                                                                                                                   |    |
| Describe each safeguard measure that has been implemented during the reporting period                                                                                                                                                        |    |
| Describe the residual impact for each impact                                                                                                                                                                                                 |    |

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| identified - if any - using the monitoring indicator(s)                                                                                                                                                                                      |    |
| Describe remedial action for residual impacts that will be taken                                                                                                                                                                             |    |
| <b>15.Lands and soil conservation</b>                                                                                                                                                                                                        |    |
| Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?                                                                                                                                                  | No |
| During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)                        |    |
| List the identified impacts for which safeguard measures are required (as per II.K/II.L)                                                                                                                                                     |    |
| List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity. |    |
| List the monitoring indicator(s) for each impact identified.                                                                                                                                                                                 |    |
| State the baseline condition for each monitoring indicator                                                                                                                                                                                   |    |
| Describe each safeguard measure that has been implemented during the reporting period                                                                                                                                                        |    |
| Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)                                                                                                                                         |    |
| Describe remedial action for residual impacts that will be taken                                                                                                                                                                             |    |

## Section 2: Monitoring for unanticipated impacts / corrective actions required

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| Has monitoring for unanticipated ESP risks been carried out?                                                                                                | Yes |
| Have unanticipated ESP risks been identified during the reporting period?                                                                                   | No  |
| If unanticipated ESP risks have been identified, describe the safeguard measures that have been taken in response and how an ESMP has been prepared/updated |     |

## Section 3: Categorisation

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| Is the categorisation according to ESP standards still relevant?                                                                                     | Yes |
| If No, please describe the changes made at activity, output or outcome level, approved by the Board, that resulted in this change of categorization. |     |

## Section 4: Implementation arrangements

|                                                                                                                                                   |                                                                                                                                                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| What arrangements have been put in place by the Implementing Entity during the reporting period to implement the required ESP safeguard measures? | Implementing arrangements have been signed with Executing Entities and external technical allies. In all of this very specific agreement the Project Document is attached, with the ESP Assessment and proposed |
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|                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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|                                                                                                                                                 | mitigation measures. The document is part of the agreement and will work as guideline to move through risks monitoring and management plan for the IE and EEs. There was no need to enter in specific arrangements on ESP for the reason described under the following point on EEs. Such justification builds on the fact that project implementation at national level is delegated to National Meteorological and Hydrological Services NMHSs, which are public institutions having the obligation to comply with National Regulations and Policies on Gender, on Interculturality and Indigenous People, on Environmental Safeguard and Protection.                                                                                                                                                                                                                                                                                                                                            |
| Have the implementation arrangements been effective during the reporting period?                                                                | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| What arrangements have been put in place by each Executing Entity during the reporting period to implement the required ESP safeguard measures? | Project implementation at national level is delegated to National Meteorological and Hydrological Services NMHSs, which are public institutions responding directly to the Ministries of Environment in the case of Peru and Colombia and to the Ministry of Defense in the case of Chile. In all of the cases EEs have the obligation to comply with National Regulations and Policies on Gender, on Interculturality and Indigenous People, on Environmental Safeguard and Protection. SENAMHI, IDEAM and DMC have internal focal points for gender, youth and indigenous people which were actively involved in the local project kick off, in the establishment of participatory roundtables and more generally in user interface platforms, and in the design of all project strategy, including field activities and local communities' engagement. In this sense, specific arrangement between IE and EEs were not needed, as the EEs had the obligation of comply with strict regulations. |
| Have the implementation arrangements at the EEs been effective during the reporting period?                                                     | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

**Section 5: Projects/programmes with unidentified sub-projects (USPs). This section needs to be completed only if the project/proramme includes USPs.**

|                                                                                                                           |  |
|---------------------------------------------------------------------------------------------------------------------------|--|
| Have the arrangements for the process described in the ESMP for ESP compliance for USPs been put in place?                |  |
| Is the required capacity for ESMP implementation present and effective with the IE and the EE(s)? Please provide details. |  |
| Have all roles and responsibilities adequately been assigned and positions filled?                                        |  |
| Has the overall ESMP been updated with the findings of the USPs that have been identified in this reporting period?       |  |

| Identified USPs in the reporting period | Application of ESMP to the USP | ESP risks identified for the USP | Has an impact assessment been carried out? | Consultation held for risks and impacts identification for USP | Gender disaggregation to identify risks and impacts | Safeguard measures identified for the USP | Monitoring indicator(s) for each impact |
|-----------------------------------------|--------------------------------|----------------------------------|--------------------------------------------|----------------------------------------------------------------|-----------------------------------------------------|-------------------------------------------|-----------------------------------------|
|-----------------------------------------|--------------------------------|----------------------------------|--------------------------------------------|----------------------------------------------------------------|-----------------------------------------------------|-------------------------------------------|-----------------------------------------|

## Section 6: Grievances

|                                                                                                                                                                    |     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Was a grievance mechanism established capable and known to stakeholders to accept grievances and complaints related to environmental and social risks and impacts? | Yes |
| Were grievances received during the reporting period?                                                                                                              | No  |

| List all grievances received during the reporting period regarding environmental and social impacts; gender related matters; or any other matter of project/programme activities | For each grievance, provide information on the grievance redress process | Provide the status/outcome |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|----------------------------|
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Comments

## GP Compliance

### Section 1: Quality at entry

Was an initial gender assessment conducted during the preparation of the project/programme's first submission as a full proposal? Yes

Does the results framework include gender-responsive indicators broken down at the different levels (objective, outcome, output)? Yes

### List the gender-responsive elements that were incorporated in the project/programme results framework

| Gender-responsive element  | Level  | Indicator                                                                                                                                                         | Baseline                                         | Target                                                                                                                                 | Rated result for the reporting period |
|----------------------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| Gender Baseline Assessment | Output | No. of stakeholder institutions in which women play an important role (high percentage of membership, positions in organization, gender perspective is explicitly | Total: 28, 7 (Colombia) + 11 (Chile) + 10 (Peru) | No. of stakeholder institutions in which women play an important role has increased by at least 1/3 since baseline (9-10 Institutions) | Good                                  |

|                                                                                                                                                                                                                     |         |                                                                                                                                                                                                              |                                                                    |                                                                                                                                                                                                    |      |
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|                                                                                                                                                                                                                     |         | considered)                                                                                                                                                                                                  |                                                                    |                                                                                                                                                                                                    |      |
| Gender Sensitive Communication                                                                                                                                                                                      | Output  | No. of local women playing important roles in disseminating climate information to their communities.                                                                                                        | Total 10, 7 (Colombia) + 3 (Chile) + 0 (Peru)                      | Possibly 1/3 increase                                                                                                                                                                              | Good |
| Engaged and empowered stakeholders have participated in the co-development and implementation of local plans and activities for adaptation to climate variability and change that rely on climate/water information | Outcome | No. of community adaptation plans that integrate climate and weather information.                                                                                                                            | Total 13, 4 (Colombia) +8 (Chile) + 1 (Peru)                       | Women and indigenous/peasant communities have had comparable participation and leadership in all adaptation activities.                                                                            | Good |
| Capacity building and outreach efforts have improved the accessibility, comprehension and use of climate and water information for risk management and adaptation among local stakeholders and communities.         | Output  | No. of participants attending field schools and Roving Seminars, broken down by gender, age or ethnicity.                                                                                                    | (0) No field school or rowing seminars held in demonstration areas | At least one field school per project year, targeting local authorities and leaders of community organizations, including significant participation by women and members of different communities. | Good |
| Capacity building and outreach efforts have improved the accessibility, comprehension and use of climate and water information for risk management and adaptation among local stakeholders and communities.         | Output  | No. of previously published studies reviewed to identify successful case studies and good practices for stakeholders' engagement (including gender and ethnicity dimensions); review is aimed at identifying | No data available                                                  | At least one field school per project year, targeting local authorities and leaders of community organizations, including significant participation by women and members of different communities. | Good |

|                                                                                                                                                                                                                                                                               |        |                                                                                                                                                                                                                                |                                                                                               |                                                                          |      |
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|                                                                                                                                                                                                                                                                               |        | conditions for effective participation prior to ENANDES activities.                                                                                                                                                            |                                                                                               |                                                                          |      |
| Context appropriate preparedness and adaptation plans and actions to reduce local damages from climate variability and change have been designed through participatory processes. Demonstration projects have been implemented and monitored to test those plans and actions. | Output | No. of stakeholders/partners attending Project Inception Workshop -PIW (broken down by gender, age, ethnicity).                                                                                                                | No Project Inception Workshops have taken place yet.                                          | Gender balanced access to and participation during the PIW, at least 50% | Good |
| Context appropriate preparedness and adaptation plans and actions to reduce local damages from climate variability and change have been designed through participatory processes. Demonstration projects have been implemented and monitored to test those plans and actions. | Output | No. of meetings with execution partners and local stakeholders (including peasant and indigenous communities & women's groups) to co-design adaptation activities in each demonstration area (broken down by gender/ethnicity) | No meeting before project implementation                                                      | Gender balanced access to and participation during the PIW, at least 50% | Good |
| Context appropriate preparedness and adaptation plans and actions to reduce local damages from                                                                                                                                                                                | Output | No. of local adaptation activities that specifically address possible gender-specific differences in                                                                                                                           | No local adaptation activities that specifically address possible gender-specific differences | Not defined                                                              | Poor |

|                                                                                                                                                                                                                                                                               |        |                                                                                                                                                                                                                              |                                                                                               |                                                                                                       |              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|--------------|
| climate variability and change have been designed through participatory processes. Demonstration projects have been implemented and monitored to test those plans and actions.                                                                                                |        | access, comprehension and use of ENANDES climate information                                                                                                                                                                 |                                                                                               |                                                                                                       |              |
| Context appropriate preparedness and adaptation plans and actions to reduce local damages from climate variability and change have been designed through participatory processes. Demonstration projects have been implemented and monitored to test those plans and actions. | Output | No. of stakeholders who are engaged in demonstration adaptation activities in any way (numbers broken down by gender, age, ethnicity and vulnerability).                                                                     | No local adaptation activities that specifically address possible gender-specific differences | Gender balanced representation of stakeholders, at least 50%                                          | Satisfactory |
| Early warning systems and enhanced processes for inter-institutional coordination have (i) strengthened national/local management of risks and (ii) have reduced the negative impacts of droughts and floods for demonstration adaptation sites/sectors                       | Output | No. of stakeholders who (i) have heard about the existence of EWSs in their demonstration sites, or (ii) have received alerts or information from those EWSs (Numbers broken down by gender, age and ethnicity) (Not Chile). | To be assessed                                                                                | Gender balanced representation of stakeholders covered by EWS(s) in demonstration areas, at least 50% | Satisfactory |

## Section 2: Quality during implementation and at exit

List gender equality and women's empowerment issues encountered during implementation of the project/programme. For each gender equality and women's empowerment issue describe the progress that was made as well as the results.

| Gender equality and women's empowerment issues       | Rated result for the reporting period | Provide justification of the rating provided |
|------------------------------------------------------|---------------------------------------|----------------------------------------------|
| N/A - to be completed for final PPR as per guidance. |                                       |                                              |

## Section 3: Implementation arrangements

|                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| What arrangements have been put in place by the Implementing Entity during the reporting period to comply with the GP | The COVID 19 prevention and mitigation measures didn't permit to carry out activities at field and community level. No specific operational arrangement has been put in place yet. Nevertheless during the coordination meetings on specific activities and outputs, such as 3.1 (Vulnerability Assessment) and 3.5 (Socio-Economic Benefit Analysis) the IA and EE(s) agreed on the need to apply a gender approach in assessing vulnerability, exposure, impacts and potential benefits at local level. During the reporting period, despite constraints associated with COVID-19, the Implementing Entity ensured the integration of gender considerations through coordinated oversight mechanisms and continuous engagement with Executing Entities. Gender-responsive implementation was operationalized through the systematic disaggregation of participation data (gender, age, ethnicity), the inclusion of gender criteria in stakeholder engagement processes, and ongoing technical support to executing partners. These arrangements were further consolidated in subsequent actions, including the Year 3 workshop, which served to align methodologies, reinforce gender mainstreaming, and define next steps for strengthened implementation. At the end of November 2023 a face to face workshop has been carried out to address 3 specific project needs: 1. Solve any doubts regarding specific topics such as donor policy and requirements, procurement procedures and reporting agenda. 2. Share NMHSs experience with applying gender approaches during field activities and address PSEAH 3. Planning project activities and collaborations for 2024. The workshop was held in Lima inside the Ministry of Agriculture and SEBNAMHI share its framework for the application of a gender sensitive approach with rural and indigenous communities. |
| Have the implementation arrangements at the IE been effective during the reporting period?                            | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| What arrangements have been put in place by each Executing Entity during the reporting period to                      | At the level of Executing Entities, concrete arrangements have been progressively established                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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| comply with the GP?                                                                                                                     | and applied. In Colombia (IDEAM), gender considerations have been embedded through dedicated responsibilities within project teams and the integration of gender criteria into all participatory processes. This is reflected in balanced participation (e.g., 123 women and 123 men in early engagement activities), targeted consultations with women's groups (11 meetings), and measurable outcomes such as 75 women trained in climate information use and 44 adaptation measures led by women. In addition, gender-responsive approaches have been incorporated into community agreements and local adaptation actions, ensuring that women are not only participants but also decision-makers and beneficiaries. In Chile (DMC) and Peru (SENAMHI), gender implementation arrangements are being strengthened as activities scale up at the territorial level. In Chile, initial engagement processes have incorporated gender-disaggregated participation and reviews of relevant studies that include gender dimensions, providing a foundation for future operationalization. In Peru, early consultations and planned activities include engagement with women's groups and the incorporation of gender considerations in climate services delivery. Across all countries, coordination between the Implementing Entity and Executing Entities is ensured through regular technical exchanges, shared reporting frameworks, and the progressive development of methodologies (e.g., learning metrics for field schools) that integrate gender dimensions, thereby reinforcing the systematic application of the Gender Plan throughout project implementation. |
| Have the implementation arrangements at the EE(s) been effective during the reporting period?                                           | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Have any capacity gaps affecting GP compliance been identified during the reporting period and if so, what remediation was implemented? | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

#### Section 4: Grievances

|                                                                                                                                                                 |     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Was a grievance mechanism established capable and known to stakeholders to accept grievances and complaints related to gender equality and women's empowerment? | Yes |
| Were grievances received during the reporting period?                                                                                                           | No  |

| List all grievances received through the grievance mechanism during the reporting period regarding gender-related matters of project/programme activities [6] | For each grievance, provide information on the grievance redress process used | Provide the status/outcome |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|----------------------------|
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|----------------------------|

Comments

By the time being both the WMO and each national executing entities are using their institutional grievance mechanisms. Most of these mechanisms can be accessed through the respective institutional websites or in person at the national offices. and can be used to submit concerns. The following links contain the specific grievance mechanisms for the Implementing Entity and Execution Focal Points: • WMO: <https://public.wmo.int/en/about-us/planning-finance-accountability/internal-oversight-office/report-fraud-corruption-or-abuse> ; • DMC: <https://www.dgac.gob.cl/oirs/> ; • IDEAM: <http://www.ideam.gov.co/web/atencion-y-participacion-ciudadana/contactenos> ; and • SENAMHI: <https://www.senamhi.gob.pe/?p=libro-reclamaciones>.

## Rating

| Implementing Entity                                                                                 |                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                  |          |              |
|-----------------------------------------------------------------------------------------------------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------|--------------|
| Project components/outcomes                                                                         | Alignment with AF outcomes | Expected Progress                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Progress to date | Comments | Rating       |
| OUTCOME 1: Enhanced design, production and communication of climate/water information and services. | Outcome 2                  | Output 1.1. National climatic and hydrological data management systems have been enhanced and updated through improved/new tools and processes. WIGOS implementation has been supported. Output 1.2. The characterization and communication of historical and recent states of climatic hazards have been improved through new/enhanced tools and processes. Output 1.3. The production and dissemination of forecasts of high-impact weather has been improved through new models and processes. 1.4. The production and dissemination of sub-seasonal to seasonal (S2S) predictions of regional climate and hydrological conditions has been improved through new models and processes. Output 1.5: The access, processing and dissemination of multi-model projections of regional climate change (decadal to multi-decadal) from multiple institutions and models has been made easier by the development of suitable tools. Output 1.6: Procedures and tools have been implemented by NMHSs to downscale seasonal forecasts and climate change projections in space/time. Global forecasts/projections have been calibrated for the ENANDES region | Ontrack          |          | Satisfactory |

|                                                                                                                                                                                                                                        |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |  |                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--|---------------------|
| <p>OUTCOME 2:<br/>Strengthened institutional coordination and value-adding tools and processes allow climate/weather information to be tailored and translated into user-centric and sector-specific adaptation actions.</p>           | <p>Outcome 4</p> | <p>Output 2.1: Knowledge and action networks have been implemented that facilitate the design, production, delivery, and use of climate information and services; relevant strategic partners have been engaged; capability gaps in strategic partners have been identified and addressed; Gender Baseline Assessment undertaken<br/>Output 2.2: The needs for tailored weather/climate information have been identified for target sectors in demonstration adaptation regions.<br/>Output 2.3: Sectoral models have been used to “translate” observed/predicted weather/climate conditions into likely local impacts at demonstration sites<br/>Output 2.4: Communication and knowledge management strategies have been developed for ENANDES.<br/>Relevant information about observed/predicted weather/climate hazards and their likely impacts are routinely communicated through appropriate channels.<br/>Output 2.5: Multiple requisites of a National Framework for Climate Services, such as identification of stakeholders and information needs and implementation of national dialogs, have been addressed by ENANDES, thus contributing to NFCS implementation.</p> | <p>Ontrack</p> |  | <p>Satisfactory</p> |
| <p>OUTCOME 3: Engaged and empowered stakeholders have participated in the co-development and implementation of local plans and activities for adaptation to climate variability and change that rely on climate/water information.</p> | <p>Outcome 3</p> | <p>Output 3.1: The factors that determine vulnerability to climatic variability and change have been identified for the sectors and regions targeted.<br/>Output 3.2: Capacity building and outreach efforts have improved the accessibility, comprehension and use of climate and water information for risk management and adaptation among local stakeholders and communities<br/>Output 3.3: Context-appropriate preparedness and adaptation plans and actions to reduce local damages from climate variability and monitored to test those plans and actions<br/>Output 3.4: Early-warning systems and enhanced processes for inter-institutional</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <p>Ontrack</p> |  | <p>Satisfactory</p> |

|                                                                                                                                                                                                                                |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |         |  |              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--|--------------|
|                                                                                                                                                                                                                                |           | <p>coordination have (i) strengthened national/local management of risks and (ii) reduced the negative impacts of droughts and floods for demonstration adaptation sites/sectors</p> <p>Output 3.5: Evaluations of the socio-economic benefits of ENANDES demonstration adaptation actions have been carried out</p> <p>Output 3.6: Useful lessons on local adaptation actions have been provided by an active project tracking effort (complementary to M&amp;E efforts) that allowed active adaptation of goals, outcomes and Outputs throughout the project</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |         |  |              |
| <p>OUTCOME 4: Regional and global coordination and cooperation mechanisms are strengthened; lessons, tools and approaches from ENANDES help others to provide climate services and replicate adaptation actions elsewhere.</p> | Outcome 8 | <p>Output 4.1: Regional coordination activities like syntheses of surveys and needs, and regional expert meetings have been carried out to support the update of national climatic and hydrological data management systems, and the implementation of interoperable regional databases</p> <p>Output 4.2: Regional coordination activities like consultations and expert meetings have been carried out to support and complement national strengthening of capacities for climate monitoring and prediction</p> <p>Output 4.3: Regional coordination activities like consultations and expert meetings have been carried out to support and complement national strengthening of capacities for climate services production, dissemination and uptake</p> <p>Output 4.4: Regional Technical Working Groups have been re-convened, revitalized or established. Active liaison with other ongoing projects in the region has achieved positive synergies and enhanced economic efficiency</p> <p>Output 4.5: An ENANDES Climate Services Toolkit (CST) has been implemented that is tailored to the previously determined operational needs of ENANDES NMHSs</p> <p>Output 4.6: Capacity building efforts for ENANDES have been (i) defined by ENANDES participants, (ii) coordinated by</p> | Ontrack |  | Satisfactory |

|  |  |                                                                                                                                                                   |  |  |  |
|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
|  |  | CIIFEN/RCC-WSA and (iii) jointly planned and implemented by countries and WMO Regional Training Centres, WMO Training Activities Division and other institutions. |  |  |  |
|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|

**Please provide the Name and Contact information of the person(s) responsible for completing the Rating section**

| Name        | Email           |
|-------------|-----------------|
| Raul Polato | rpolato@wmo.int |

**Please justify your rating. Outline the positive and negative progress made by the project since it started. Provide specific recommendations for next steps.**

The project inception as well as the initial implementation have been affected by the covid-19 outbreak. Inception was indeed postponed of 6 months and finally carried out on February 2 to 4 2021. Inception Workshop permitted a general review of the workplan and of priorities, reaching consensus on specific needs and opportunities. Unfortunately, during 2021 presidential elections took place in Peru and Chile, having an impact on national bureaucracy and especially on the national reviews of Implementing Arrangements. Also, Colombia started facing some administrative constraints due to the presidential elections scheduled for 2022. As a result of the elections in Peru and Chile, even though they generated a turnover in the NMHS, leading to a change of PR in Peru, there were no major impacts on project feasibility, surely a delay in decision making processes. For those reasons, the access to project resources by Executing Entities was delayed and most of the activities planned for the first year have been postponed to the second year as any exchange and knowledge transfer has been limited to the remote/virtual modality. Nevertheless, even though limitation to mobility and missions have affected the progress on financial execution, free technology available for frequent remote meetings have supported several negotiations, reaching consensus of important agreements that generated an overall obligation by WMO only of more than 500.000 USD to be executed along year 2. It is expected that by the end of Year 2 major activities will be on schedule in line with milestones in the logframe. During the second year of implementation COVID19 restrictions have been released and it was possible to schedule several activities including face to face training, meeting sessions of governing bodies and field activities with direct beneficiaries and information users. Even though some Output are still facing a delay, we may consider that the project could accelerate the execution and achieve an excellent level of articulation among partners during the second year, strengthening the regional approach and offering opportunities of information sharing and knowledge transfers well beyond pilot areas or national implementation. We can consider the achieved pace satisfactory. During the third year of implementation the project still faced some challenges in maintaining the implementation pace. This was mainly due to authority turnover and the impact on institutional settings and decision making. Nevertheless, it was possible to deliver specific products and to start new collaboration with strategic allies such as the University of Bern and the Institute for Spatial Research of Brazil. At the same time, the most relevant accelerator of regional articulation was the startup of the ENANDES+ initiative, as to say the scale up of ENANDES to 3 more countries involving also the Regional Climate Center for the South of Southern America, the Regional Training Center of Argentina, and MeteoSwiss as fundamental partner and extra-regional expertise provider. Since the scale up the project consolidate the regional approach and perspective, feeding also team building and collaboration efforts. Even though some delay is still accumulated, most probably requiring an extension to project completion in order to finalize all project products, ENANDES is on good tracks and already represent a regional flagship for the Meteorological and Hydrological Services involved. During the reporting period WMO could achieve a better implementation pace addressing and guaranteeing the regional approach to reduce capacity gaps and carrying out following activities: - OUCOME 1: Observation Capacities WMO hired researchers from the University of Santiago of Chile in order to provide a comprehensive course on the "Variable Infiltration Capacity - VIC Hydrological Model. As a part of the Capacity Building Agenda of the project and addressing the specific need of develop and implement automated procedures to produce and validate

forecasts of extreme weather events, 29 officers from National Hydromet Services of Peru, Bolivia, Ecuador, Colombia y Venezuela, attended a theoretical and practical training of 36 hours on VIC, applying the model to a national watershed as final exercise. The experts of IRI advised CIIFEN and focal points of SENAMHI, DMC and IDEAM, to jointly prepared and edit the "Guía de pronósticos sub-estacionales del proyecto ENANDES". This document (available in the library of project outputs) is representing a Hands on Manual on the use of the " the Extended Logistic Regression (ELR) rainfall sub-seasonal forecast system". In the same year, according to the request received from DMC and to the authorization granted by AFB to provide Direct Project Services to DMC, WMO and IRI signed another Implementation Agreement in order to support DMC in the identification of relevant climatic variables/features that need to be routinely predicted on seasonal scale and on the development of capacities needed to to produce and analyse seasonal statistical and dynamical forecasts. The collaboration is still on going at the time of this report. + OUCOME 2: Modeling and Translation of information into sectorial variables. WMO organized a 6 Sessions (18 hours in total) Training Course on "Weather, Water and Climate Services for the Energy sector and nexus issues covering global, regional and national perspectives, through presentations of case studies and best practices on services for energy sector. The event involved 40 speakers from regional and extra regional institutions and counted more than 100 participants. A Practical session was also included to develop national energy mini proposal in break out groups (per country) with national representatives from public, private and academic sectors. Two proposals would have been selected in order to be implemented. WMO started an exchange and negotiation with the Latin American Energy Organization - OLADE in order to collaborate on National Renewable Energy Atlases and on Energy mini projects. After the selection of the 2 Micro-projects during the Training Workshop on Climate Services for the Energy Sector, a first demonstration project was funded and implemented. The "Evaporation rate estimation model for hydraulic infrastructures with floating solar panels in Chile " was performed by a profesor from the Diego Portales University (UDP) establishing an effective collaboration with DMC and the Ministry of Energy. Data from more than 2000 points across the Chile were used to develop and test the model. The developed tool is operational and fully incorporated to the Energy Explorer of the energy ministry of Chile and a peer-reviewed scientific article is under publication. Output 2.5: Under the activity 2.5.3, the project supported the organization of the Introductory Forum for National Climate Service Information System Focal Points (NCFPs) for WMO Regional Associations (RAs) III and IV to raise awareness of NCFPs on the key concepts related to climate services and bringing together experts from USA, Canada, Central America and Caribbean and South America. - OUTCOME 3: Field Activities Between June and August 2023, WMO and IDEAM carried out a series of 7 online workshops on the design and implementation of Local Technical Agroclimatic Committees (LTACs) and Community Agroclimatic Committees with the participation of 40 officers from the NMHSs involved in ENANDES (+). The sessions transferred the experienced gained by IDEAM in Colombia and the other initiatives in progress in the region, addressing relevant issues such as interinstitutional articulation, gender approach and local empowerment and the integration of traditional knowledge. As final activity of the LTACs knowledge share, 25 Agrometeorologists from the meteorological services of Argentina, Chile, Colombia, Ecuador, and Peru, as well as from the International Centre for the Investigation of El Niño (CIIFEN), the Ministry of Agriculture of Colombia and Ecuador, visited ENANDES initiatives in Cauca, Colombia in September 2023. The visit was aimed at promoting the exchange of experiences, opportunities, and challenges in the implementation LTACs and Community Agroclimatic and involved more than 140 people from all the sub-basins linked to the project in Colombia participated - OUTCOME 4: Regional Articulation During the Planning Workshop 2024, held in Lima in November 2023, the attending National Hydromet Services analyzed the possibility to exchange tools and knowhow and promote knowledge transfer mechanisms in so called "south south twinnings". A new training agenda for 2024 was prepared with a new articulation setting. With the scale up to ENANDES+, CIIFEN is now sharing regional efforts for permanent training and capacity buildings with two Regional Training Centers (Lima and Buenos Aires) and counting on specific technical expertise of some NMHSs that may provide on the job training to less advanced institutions.

## Executing Entity / Project Coordinator

| Project components/outcomes | Alignment with AF outcomes | Expected Progress | Progress to date | Rating |  |
|-----------------------------|----------------------------|-------------------|------------------|--------|--|
|-----------------------------|----------------------------|-------------------|------------------|--------|--|

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| <p>OUTCOME 1: Enhanced design, production and communication of climate/water information and services.</p>                                                                                                               | <p>Outcome 2</p> | <p>Output 1.1. National climatic and hydrological data management systems have been enhanced and updated through improved/new tools and processes. WIGOS implementation has been supported. Output 1.2. The characterization and communication of historical and recent states of climatic hazards have been improved through new/enhanced tools and processes. Output 1.3. The production and dissemination of forecasts of high-impact weather has been improved through new models and processes. 1.4. The production and dissemination of sub-seasonal to seasonal (S2S) predictions of regional climate and hydrological conditions has been improved through new models and processes. Output 1.5: The access, processing and dissemination of multi-model projections of regional climate change (decadal to multi-decadal) from multiple institutions and models has been made easier by the development of suitable tools. Output 1.6: Procedures and tools have been implemented by NMHSs to downscale seasonal forecasts and climate change projections in space/time. Global forecasts/projections have been calibrated for the ENANDES region</p> | <p>Ontrack</p> |  | <p>Satisfactory</p>        |
| <p>OUTCOME 2: Strengthened institutional coordination and value-adding tools and processes allow climate/weather information to be tailored and translated into user-centric and sector-specific adaptation actions.</p> | <p>Outcome 4</p> | <p>Output 2.1: Knowledge and action networks have been implemented that facilitate the design, production, delivery, and use of climate information and services; relevant strategic partners have been engaged; capability gaps in strategic partners have been identified and addressed; Gender Baseline Assessment undertaken Output 2.2: The needs for tailored weather/climate information have been identified for target sectors in demonstration adaptation regions. Output 2.3: Sectoral models have been used to “translate” observed/predicted weather/climate conditions into likely local impacts at demonstration sites Output 2.4: Communication and knowledge management strategies have been developed for ENANDES. Relevant information about observed/predicted weather/climate</p>                                                                                                                                                                                                                                                                                                                                                         | <p>Ontrack</p> |  | <p>Highly Satisfactory</p> |

|                                                                                                                                                                                                                                 |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |         |  |                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--|---------------------|
|                                                                                                                                                                                                                                 |           | hazards and their likely impacts are routinely communicated through appropriate channels. Output 2.5: Multiple requisites of a National Framework for Climate Services, such as identification of stakeholders and information needs and implementation of national dialogs, have been addressed by ENANDES, thus contributing to NFCS implementation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |         |  |                     |
| OUTCOME 3: Engaged and empowered stakeholders have participated in the co-development and implementation of local plans and activities for adaptation to climate variability and change that rely on climate/water information. | Outcome 3 | Output 3.1: The factors that determine vulnerability to climatic variability and change have been identified for the sectors and regions targeted. Output 3.2: Capacity building and outreach efforts have improved the accessibility, comprehension and use of climate and water information for risk management and adaptation among local stakeholders and communities Output 3.3: Context-appropriate preparedness and adaptation plans and actions to reduce local damages from climate variability and monitored to test those plans and actions Output 3.4: Early-warning systems and enhanced processes for inter-institutional coordination have (i) strengthened national/local management of risks and (ii) reduced the negative impacts of droughts and floods for demonstration adaptation sites/sectors Output 3.5: Evaluations of the socio-economic benefits of ENANDES demonstration adaptation actions have been carried out Output 3.6: Useful lessons on local adaptation actions have been provided by an active project tracking effort (complementary to M&E efforts) that allowed active adaptation of goals, outcomes and Outputs throughout the project | Ontrack |  | Highly Satisfactory |

**Please provide the Name and Contact information of the person(s) responsible for completing the Rating section**

| Name                                                       | Email                                         | Institution                                                                                                                           |
|------------------------------------------------------------|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Lina Pico (IDEAM);<br>Grinia Jesús Avalos Roldán (SENAMHI) | lpico@ideam.gov.co;<br>gavalos@senamhi.gob.pe | Instituto de Hidrología, Meteorología y Estudios Ambientales IDEAM; Servicio Nacional de Meteorología e Hidrología del Perú (SENAMHI) |

**Please justify your rating. Outline the positive and negative progress made by the project since it**

**started. Provide specific recommendations for next steps.**

IDEAM, IE in Colombia: For the period of the current report in the pilot area of project ENANDES, it goes through the socialization of the ENANDES project with the one in charge and the respective leaders of each community, knowing that most of the territory is occupied by peasants and indigenous people. In February 2022, activities were initiated by the ENANDES interdisciplinary technical team; field activities with communities began in April. The products were generated according to the projected Work Plan 2022 and compliance with each of the ENANDES components, indicators and products. Progresses have been achieved with the agro-climatic, agricultural, livestock, climate, hydrological, meteorological and hydrological data and networks, socio-environmental and participatory components, communications, design and dissemination, cartography and information technology. For this purpose, Ideam contracted the services of 19 professionals to provide specific technical support for the fulfillment of objectives. Collaborative work was achieved with peasant and indigenous communities, which made it possible to create spaces for dialogue and local adaptation actions were carried out, with the specific focus on the generation of climate services that would enable the understanding of all the information generated by Ideam and lead to appropriate and timely decision making by the communities. The "ENANDES Community Agroclimatic Tables" and the "ENANDES Field Schools" were created as local adaptation supporting tools and as spaces for dialogue that strengthen the use of local climate services in each of the 5 micro-basins. Seven ENANDES Agroclimatic Bulletins were generated, which were co-designed by the community and ENANDES professionals. It should be noted that all community activities were developed with a cross-cutting gender approach. A document of lessons learned from the community with a gender perspective was prepared. For the 2022 fiscal year, the project had a financial execution of 96.17%. For the optimal fulfillment of the activities in the territory, it was necessary to carry out an articulated and joint work with the communities and local allies, therefore Agreement No. 400 was signed with the Procuencia Río las Piedras Foundation for the development of various field activities (logistics, technical support, supply and displacement) to strengthen dialogue spaces such as the ENANDES Community Agroclimatic Roundtables and ENANDES Field Schools, Strengthening of the Early Warning System - EWS, simulation exercises and provision of basic emergency response elements prioritized with the communities, Flood and Drought Forum (dialogue between communities and experts), implementation of measures for adaptation to climate change and variability, installation of 11 rain gauges and the involvement of 8 local ENANDES promoters. The "Technical Tables of the agreement" were created to plan the activities, with the participation of professionals from Ideam - ENANDES, Fundación Río Piedras and the strategic alliance with the team of the Environmental Division of Empresa de Acueducto y Alcantarillado de Popayán S.A. E.S.P. During 2023, ENANDES project has made progress in its four main results. Result 1, work was initiated to preserve and digitize climate and hydrological data through the evaluation of graphs, correction, adjustment, validation, digitization, and capture in the DHIME - Ideam system. Statistical analysis methods and consolidation of historical meteorological data available in the project's area of influence were applied. A comparative diagnosis with the Volunclima network was also carried out. A routine in the Python programming language was developed for generating tables and graphs for monitoring, along with its execution guide. Verification of the forecast ability of the WRF model was conducted, and the GR2M hydrological model was calibrated and validated. The seasonal hydrological prediction process was also carried out for the ENANDES basins with available hydrological information. For Result 2, the implementation of socio-environmental articulation strategies with relevant local actors was carried out to strengthen the knowledge and action networks of ENANDES climate services. Perspectives of leaders from the Cauca organizations and teams, as well as the national team of ENANDES and Ideam, were identified, who expressed their perceptions and proposals for project systematization. The communication strategy was implemented, including its components of external, internal, digital communication, brand image, and events. ENANDES agroclimatic bulletins, graphic pieces, ENANDES project presentations, and banners were designed, produced, and disseminated. Support was provided for the implementation of the National Climate Services Framework for Colombia and the action plan for the agricultural sector through the development of Technical Agroclimatic Tables, methodological proposals for UIP/MTA NUREX, and presentations with CORNARE and in Ministerial Councils. Collaboration with the WMO and meteorological centers of Argentina, Bolivia, Chile, Ecuador, and Peru was carried out for capacity building in the implementation and development of Agroclimatic Tables, based on Ideam's experience as the Colombian Meteorological Service. In Result 3, a Knowledge Exchange Workshop on "Mesas Técnicas

Agroclimáticas y Mesas Agroclimáticas Comunitarias ENANDES”, was coordinated and developed with the WMO, for representatives of different hydrological and meteorological services participating in the ENANDES and ENANDES+ projects. “Mesas Agroclimáticas Comunitarias y Escuelas de campo ENANDES” were held in the five sub-basins. Progress and gender roles in the project were monitored in coordination with national, regional instruments, and the Environmental and Social Policy of the Adaptation Fund. Follow-up and evaluation visits were made to adaptation measures implemented in the ENANDES territory, and a document was generated. Community Early Warning Systems (SAT) were strengthened through training with pedagogical tools adapted to the community and institutional environment based on the IAP methodology (Investigation - Action - Participation). Follow-up visits were also made to the community climate monitoring network for articulation with the Volunclima strategy. And for Result 4, the first regional tour of successful experiences ENANDES was carried out to share experiences, lessons learned, participatory methodologies related to the implementation of climate services, and progress of the Regional Expertise Hub "NUREX", concept note and work plan 2024. SENAMHI Peru, EE in Peru: At the technical level, activities and results have been achieved in all 3 components so the level of satisfactory is justified during 2023. - Component 1: Observational database for the generation of agrometeorological indices; the institutional web development for the monitoring of data reception and of the metadata management system finalized and in the process of being put into operation with the new Institutional Database (SOL); the homogenization of climatic series; the proposal of applications of the GOES 16 satellite; the publication of the climate characterization study for the Department of San Martín and the culmination of the climate characterization study for the Department of Lima; progress in the evaluation of hydroelectric potential at the national level; and the implementation of the sub-seasonal climate forecast prototype and its verification on an experimental basis. - Component 2: the follow-up report on the fulfillment of physical and financial goals; the evaluation of the impact of extreme events in the project intervention areas; the updating of the demand for climate information and products by public institutions at the national level; a report on the workshops with a participatory approach for the agroclimatic service proposal in the district of Santa Eulalia, pilot area of the Rimac River basin; the strengthening of the capacities of local stakeholders for the implementation of the Agroclimatic Technical Tables (MTA) and the proposal for a national research agenda for the provision of climate services. - Component 3: the vulnerability and risk assessment study in the Rimac Basin and Huallaga Basin (preliminary version under review); the development of participatory workshops with producers and the implementation of the AWM in the Department of San Martín; the implementation of improvements in the dissemination of information and systematization of experiences in the intervention areas; the systematization of meteorological, hydrological and agrometeorological products as input for regional and local climate change strategies; a proposed tool for risk transfer in the intervention areas; an action plan for strengthening risk management in the Rimac Basin; a concept note to guide the study of socioeconomic benefits in the Department of San Martín; the evaluation and diagnosis of EWS at the national level and in the intervention areas; and a proposal for community EWS for the intervention areas.

| Other                                                                                               |                            |                                                                                                                                                                                                                                                                                                                                                                                                                                 |                  |        |  |
|-----------------------------------------------------------------------------------------------------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------|--|
| Project components/outcomes                                                                         | Alignment with AF outcomes | Expected Progress                                                                                                                                                                                                                                                                                                                                                                                                               | Progress to date | Rating |  |
| OUTCOME 1: Enhanced design, production and communication of climate/water information and services. | Outcome 2                  | Output 1.1. National climatic and hydrological data management systems have been enhanced and updated through improved/new tools and processes. WIGOS implementation has been supported. Output 1.2. The characterization and communication of historical and recent states of climatic hazards have been improved through new/enhanced tools and processes. Output 1.3. The production and dissemination of forecasts of high- | Ontrack          |        |  |

|                                                                                                                                                                                                                          |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |         |  |              |
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|                                                                                                                                                                                                                          |           | <p>impact weather has been improved through new models and processes.</p> <p>1.4. The production and dissemination of sub-seasonal to seasonal (S2S) predictions of regional climate and hydrological conditions has been improved through new models and processes.</p> <p>Output 1.5: The access, processing and dissemination of multi-model projections of regional climate change (decadal to multi-decadal) from multiple institutions and models has been made easier by the development of suitable tools.</p> <p>Output 1.6: Procedures and tools have been implemented by NMHSs to downscale seasonal forecasts and climate change projections in space/time. Global forecasts/projections have been calibrated for the ENANDES region</p>                                                                                                                                                                                                                                                                                                                                                                                                                                      |         |  |              |
| <p>OUTCOME 2: Strengthened institutional coordination and value-adding tools and processes allow climate/weather information to be tailored and translated into user-centric and sector-specific adaptation actions.</p> | Outcome 4 | <p>Output 2.1: Knowledge and action networks have been implemented that facilitate the design, production, delivery, and use of climate information and services; relevant strategic partners have been engaged; capability gaps in strategic partners have been identified and addressed; Gender Baseline Assessment undertaken</p> <p>Output 2.2: The needs for tailored weather/climate information have been identified for target sectors in demonstration adaptation regions.</p> <p>Output 2.3: Sectoral models have been used to “translate” observed/predicted weather/climate conditions into likely local impacts at demonstration sites</p> <p>Output 2.4: Communication and knowledge management strategies have been developed for ENANDES. Relevant information about observed/predicted weather/climate hazards and their likely impacts are routinely communicated through appropriate channels.</p> <p>Output 2.5: Multiple requisites of a National Framework for Climate Services, such as identification of stakeholders and information needs and implementation of national dialogs, have been addressed by ENANDES, thus contributing to NFCS implementation.</p> | Ontrack |  | Satisfactory |
| <p>OUTCOME 3: Engaged and empowered stakeholders have</p>                                                                                                                                                                | Outcome 3 | <p>Output 3.1: The factors that determine vulnerability to climatic variability and change have been identified for the</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Ontrack |  | Satisfactory |

|                                                                                                                                                                                                                         |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |         |  |              |
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| participated in the co-development and implementation of local plans and activities for adaptation to climate variability and change that rely on climate/water information.                                            |           | sectors and regions targeted. Output 3.2: Capacity building and outreach efforts have improved the accessibility, comprehension and use of climate and water information for risk management and adaptation among local stakeholders and communities Output 3.3: Context-appropriate preparedness and adaptation plans and actions to reduce local damages from climate variability and monitored to test those plans and actions Output 3.4: Early-warning systems and enhanced processes for inter-institutional coordination have (i) strengthened national/local management of risks and (ii) reduced the negative impacts of droughts and floods for demonstration adaptation sites/sectors Output 3.5: Evaluations of the socio-economic benefits of ENANDES demonstration adaptation actions have been carried out Output 3.6: Useful lessons on local adaptation actions have been provided by an active project tracking effort (complementary to M&E efforts) that allowed active adaptation of goals, outcomes and Outputs throughout the project |         |  |              |
| OUTCOME 4: Regional and global coordination and cooperation mechanisms are strengthened; lessons, tools and approaches from ENANDES help others to provide climate services and replicate adaptation actions elsewhere. | Outcome 8 | 4.1: Regional coordination activities like syntheses of surveys and needs, and regional expert meetings have been carried out to support the update of national climatic and hydrological data management systems, and the implementation of interoperable regional databases 4.2: Regional coordination activities like consultations and expert meetings have been carried out to support and complement national strengthening of capacities for climate monitoring and prediction 4.3: Regional coordination activities like consultations and expert meetings have been carried out to support and complement national strengthening of capacities for climate services production, dissemination and uptake 4.4: Regional Technical Working Groups have been re-convened, revitalized or established. Active liaison with other ongoing projects in the region has achieved positive synergies and enhanced economic efficiency 4.5: An                                                                                                                | Ontrack |  | Satisfactory |

|  |  |                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |  |
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|  |  | ENANDES Climate Services Toolkit (CST) has been implemented that is tailored to the previously determined operational needs of ENANDES NMHSs 4.6: Capacity building efforts for ENANDES have been (i) defined by ENANDES participants, (ii) coordinated by CIIFEN/RCC-WSA and (iii) jointly planned and implemented by countries and WMO Regional Training Centers, WMO Training Activities Division and other institutions. |  |  |  |
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**Please provide the Name and Contact information of the person(s) responsible for completing the Rating section**

| Name                                                      | Email                                          |
|-----------------------------------------------------------|------------------------------------------------|
| Carmen Vega (OUTCOME 1,2 and 3); Felipe Costa (OUTCOME 4) | carmen.vega@dgac.gob.cl;<br>f.costa@ciifen.org |

**Please justify your rating. Outline the positive and negative progress made by the project since it started. Provide specific recommendations for next steps.**

DMC, EE in CHILE: "After the official ENANDES kick-off in February 2021, the project work in Chile during Phase 1 had mainly focused on the signature of the Implementation Agreement accomplished in September 2021; preparing the national project kick-off that took place on October 2021 to which potential collaborators at the national level were invited; this activity represented a first step for project visibility and introduction in the country. After the national kick-off, the national Implementation Partner (DMC) has focused on building the different working teams for the main ENANDES study areas of interest: Hydrology, Energy, Agrometeorology, Risk Prevention, and Vulnerable Communities. An important task taken by DMC during this period was working with CONADI (in English Chilean Corporation for the Development of Indigenous Peoples) in order to develop a plan to work with indigenous communities at the study site of ENANDES following the principles of free, prior, and informed consent according to the Indigenous and Tribal Peoples Convention, 1989 (No. 169) from the International Labour Office, to which DMC received official notification of approval from the national authority in January 2022. Although tranche 1 was received in November 2021, we experienced various internal administrative barriers that did not allow us to start with the expenditure until October 2022. Having these legal aspects revised and approved, DMC has been working on the implementation of the ENANDES Work Plan Phase 1. Tranche 2 has been received in February 28th 2023 and Phase 2 (year 2 activities) will be developed in parallel with pending activities from Phase 1 (year 1) during 2023. Most of restrictions related to COVID-19 were eliminated during the second half of 2022 thus allowing the start of visits to pilot area and the resume of in person meetings. Challenges: Summer public holidays (Late December, January and February): although public entities continue open during summer public holidays, it is a fact that administrative actions are not executed as fast as during the rest of the year (March -December); therefore, most of the project activities are concentrated and executed during the March -December period. We encountered several internal administrative barriers in order to establish the right mechanism to spend the project budget, in accordance with WMO, FA and DGAC rules. The process was long due to the necessity of official permission from the Contraloría General de la República (CGR) in relation to the accounts for the ENANDES budget administered by DGAC-DMC. The official pronouncement from CGR came in on July 13th 2022. Due to the above explained, no expenditures could be done during the period. After the CGR pronouncement, DGAC and DMC set the administrative procedures for the ENANDES budget and the process of purchase of services and goods started in October 2022. Administrative barriers for hiring experts and purchases: we have encountered several administrative barriers at DGAC-DMC level that make the hiring of experts or consultants and purchases a long and not straightforward process. Due to national rules, we should follow a ca. 3-month long process to hire experts

or consultants, which generates a slower execution of the activities planned for year 1. We have taken this issue into account for years 2-4, and we will then coordinate the hiring of some key experts with the aid of WMO, s for example the hiring of consultant Camilo Prats in February 2023. The issue explained in point 3 is also applicable to potential agreements between DMC and international institutions. Due to national rules, it is not possible for DMC to elaborate bilateral agreements with international institutions using the ENANDES budget that is already in DMC accounts. To overcome this inconvenience in years 2-4 of the project we will coordinate international agreement with the aid of WMO. Difficulties to establish the hydrological working group. DMC and WMO have tried to reach and actively involve the Chilean hydrological authority (DGA) without success. Even though an ENANDES focal point was named in June 2022 at DGA, it is still difficult to obtain responses from the institution. DMC has then looked for other national and local stakeholders in the sector in order to work with them and participated in the working group led by PROHIMET. Risks associated to each of the above points: The work plan has been written considering these issues. The work plan has been modified and adapted to the delay. Solutions have been found via WMO collaboration. DMC has looked for other national and local stakeholders in the sector in order to work with them and participated in the working group led by PROHIMET. In addition, DMC has proposed a Plan B for the hydrological sector which was presented to WMO in late 2022. During third year of implementation DMC faced new challenges due to: -The existence of parallel projects and lines of work around ENANDES, multiple meetings and work instances are held, which duplicate efforts and therefore make it difficult to optimize time and human resources for progress in work plan activities. -Difficulty in the dissemination of public calls and nomination of offerers. Therefore, the bidding process must be repeated, delaying the work plan. -Delay in the acquisition of automatic stations for the pilot zone, due to joint projects carried out by member countries. CIIFEN, EE for the Regional Component (OUTCOME 4): Due to COVID19 limitations, digital platforms have been used to hold frequent coordination meetings and overcome the impossibility of scheduling and arranging face to face trainings or workshops. Although this has been consolidating over time, in the first months it was a challenge to capture the attention of the participants and use effectively new digital technologies. Remote coordination permitted to move forward the agenda for the second year but generated a low level of budget execution, for the almost null cost of digital online conference platforms. As CIIFEN is responsible for the regional component, it needs inputs from NMHSs to be able to implement its workplan. CIIFEN could also put in place a relatively quick review and formalization process for the Implementation Arrangement with WMO. In this sense it could manage its own budget earlier than other executing entities. Nevertheless the indirect dependency on NMHSs resources to articulate specific activities, generate delay also to its agenda. In order to overcome the delay in the NMHSs' actions due to national circumstances and slow validation processes, consultants have been hired or external partners have been brought in on several occasions. CIIFEN experience permit to state that ENANDES should first rely on national or regional expertise and professionals, and in case of lack of suitable profiles, should commit with external institutional partners or allies. All the global, national and local contingencies have permitted to dedicate time to meeting agreements and consensus on activities and approaches, but generated a limited financial execution, for CIIFEN and for project partners in general. The investment schedule will speed up since the beginning of Year 2, having all Implementing Arrangement already validated and signed and disbursements to partners almost done. In 2023, it was done significant progress in regional component by integrating communication efforts, developing the CST, subseasonal forecasting, drought monitoring, among other activities. Moreover, with the gradual easing of pandemic restrictions, more training sessions and face-to-face meetings were possible. In this year it was achieved the highest percentage of budget execution and expected outcomes. It is recommended to maintain fluent and frequent integration among partners and stakeholders of the project, as there were instances where national coordinators or technical personnel were replaced; also was observed the rotation or reduction of staff in some NMHSs due to political reasons.

## Overall Rating

### Overall rating

Satisfactory

**Please justify your rating. Outline the positive and negative progress made by the project since it started. Provide specific recommendations for next steps.**

The project inception as well as the initial implementation have been affected by the covid-19 outbreak. Inception was indeed postponed of 6 months and finally carried out on February 2 to 4 2021. Inception Workshop permitted a general review of the workplan and of priorities, reaching consensus on specific needs and opportunities. Unfortunately, during 2021 presidential elections took place in Peru and Chile, having an impact on national bureaucracy and especially on the national reviews of Implementing Arrangements. Also, Colombia started facing some administrative constraints due to the presidential elections scheduled for 2022. As a result of the elections in Peru and Chile, even though they generated a turnover in the NMHS, leading to a change of PR in Peru, there were no major impacts on project feasibility, surely a delay in decision making processes. For those reasons, the access to project resources by Executing Entities was delayed and most of the activities planned for the first year have been postponed to the second year as any exchange and knowledge transfer has been limited to the remote/virtual modality. Nevertheless, even though limitation to mobility and missions have affected the progress on financial execution, free technology available for frequent remote meetings have supported several negotiations, reaching consensus of important agreements that generated an overall obligation by WMO only of more than 500.000 USD to be executed along year 2. It is expected that by the end of Year 2 major activities will be on schedule in line with milestones in the logframe. During the second year of implementation COVID19 restrictions have been released and it was possible to schedule several activities including face to face training, meeting sessions of governing bodies and field activities with direct beneficiaries and information users. Even though some Output are still facing a delay, we may consider that the project could accelerate the execution and achieve an excellent level of articulation among partners during the second year, strengthening the regional approach and offering opportunities of information sharing and knowledge transfers well beyond pilot areas or national implementation. We can consider the achieved pace satisfactory. During the third year of implementation the project still faced some challenges in maintaining the implementation pace. This was mainly due to authority turnover and the impact on institutional settings and decision making. Nevertheless it was possible to deliver specific products and to start new collaboration with strategic allies such as the University of Bern and the Institute for Spatial Research of Brazil. At the same time, the most relevant accelerator of regional articulation was the startup of the ENANDES+ initiative, as to say the scale up of ENANDES to 3 more countries involving also the Regional Climate Center for the South of Southern America, the Regional Training Center of Argentina, and MeteoSwiss as fundamental partner and extra-regional expertise provider. Since the scale up the project consolidate the regional approach and perspective, feeding also team building and collaboration efforts. Even though some delay is still accumulated, most probably requiring an extension to project completion in order to finalize all project products, ENANDES is on good tracks and already represent a regional flagship for the Meteorological and Hydrological Services involved.

## Project Indicators

### List of indicators

| Type of Indicator<br>(indicators towards<br>Objectives,<br>Outcomes, etc...) | Indicator                                                                                                    | Baseline                                                                                    | Progress Since<br>Inception          | Target for Project<br>End                                                                |
|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------|
| Outcomes                                                                     | Categories assigned to NMHSs for each component of the WMO Checklist for Climate Services Indicators (CCSI). | Classification received by ENANDES NMHSs during the recent survey of WMO members to develop | To be measured at the end of project | Moving the classification of each ENANDES NMHS in the WMO Checklist for Climate Services |

|         |                                                                                                                                                                                                                                      | a baseline of climate services delivery.                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Indicators at least one category up.                                                                                                                                                                                                                                                                                                                                                                      |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Outputs | No. of weather and hydrological stations in demonstration sites for which: historical daily climate/water records have been imaged and digitized (number of records); quality control has been performed. data have been homogenized | Section on Observing networks, data and data management in the WMO CCSI | <p>YEAR 1: 0 1. Gaps analysis conducted by DMC and IDEAM 2. Elaboration of joint ToR to proceed with purchase of Automatic Weather Stations (AWS) in Chile and Colombia</p> <p>YEAR 2: Chile DMC: 2 weather stations in the Aconcagua River basin that provided daily records on precipitation and permitted to digitize 2,221 pluviograms. (Station 1, Calle Larga - nr 32004 with historical series of the period 05.APR.1993-02.JAN.201 and Station 2: Olmué, Pelumpén - 330088 with 30.NOV.1992-04.JAN.2016) . No station with homogenization or quality control performed.</p> <p>Colombia IDEAM: Peru SENAMHI: 60% of the data provided by the 92 weather stations in pilot areas have been digitized. YEAR 3: Peru SENAMHI: - 10 of 10 Conventional weather stations, with scanned spreadsheets, with quality-controlled and homogenized historical series (100%) - 70 out of 90 Conventional stations with scanned</p> | <p>- All meteorological and hydrological stations within the demonstration areas have been subjected to gap analysis and national reports are available - set of high-quality stations will be selected by some countries (Colombia) for subsequent analyses.</p> <p>- All available records on paper support have been digitized for all or selected (Colombia) stations within demonstration areas.</p> |

|         |                                                                                                            |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                  |
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|         |                                                                                                            |                                                            | spreadsheets and automatic quality control. (77%) - 40 out of 40 Automatic stations with automatic quality control (100%)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                  |
| Outputs | No. of documents with procedural guidelines and good practices about management of climate and water data. | Few datasets are registered in WMO Information System WIS. | <p>YEAR 1: 1. Survey on level of the implementation of WIGOS/WIS in ENANDES Countries + all the other RAIH countries 2. WIGOS &amp; WIS 2.0 Workshop designed and scheduled for all of RAIH countries according to survey output 3. Negotiated an agreement with the National Institute for Spatial Research of Brazil (INPE) to made available to NMHSs satellite based information on precipitation and water availability at ground/soil level</p> <p>YEAR 2: 29 existing documents + 19 new documents available among the 3 countries. Chile DMC: 8 internal quality control protocols are available in DMC + 1 report on basin stations integration to OSCAR. Still no access to hydrological data to be provided by DGA. Colombia IDEAM: 29 documents have been identified with procedures, protocols, instructions, manuals and others, contained in the</p> | <p>- Data for all or selected (Colombia) meteorological and hydrological stations within the demonstration areas have been quality controlled - Procedures and guidelines are available for management of climate/water data and metadata. - Periodic summaries are received by NMHSs on the operational status of each observation station.</p> |

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|  |  |  | <p>"Methodological guide to the statistical operation of meteorological variables - Ideam". 9</p> <p>New documents have been prepared for the project: -</p> <p>Gaps assessment in scientific knowledge in Colombia. - Plan for the improvement of the National System of Data from the Data Quality Management System. - Report on steps to integrate WIGOS and OSCAR into the Ideam data system - Inventory of the different hydrological and meteorological databases which includes stations features and characteristics. - Gap analysis and strategy for the databases integration - Evaluation of the meteorological and hydrological networks: data quality, methods, measurement procedures, verification, and data storage. - Proposal for an articulation strategy to resolve the integrated meteorological data system incompatibilities. Meteorological and Hydrological networks management reports. - Reports on the Ideam data management implementation. -</p> |  |
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|  |  |  | <p>Document to establish criteria, procedures, scripts and other tools to improve data validation and generate reconstruction databases for the historical series according to WIGOS requirements. Peru SENAMHI: has available 2 out of the 3 documents planned to establish the quality protocols of hydrometeorological data. YEAR 3: 8 new documents (+48 previously available = 56 documents) Colombia IDEAM: 8 New Documents - Technical report with the initial proposal to define implementation strategies for the WIGOS Plan for Colombia. - Technical report with the implementation of methodological sheets for the OSCAR/Surface repository (implemented methodological sheets and update supports). - Document to establish and automate databases for daily and ten-day monitoring, necessary for the development of agroclimatic monitoring products in the study area of the ENANDES Project. - Technical report on the diagnosis and</p> |  |
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|         |                                                                                                               |                                                                                | <p>availability of meteorological records available in the influence area of the ENANDES project. - Technical report with statistical analysis and consolidation of available historical meteorological records in the influence area of the ENANDES project.</p> <p>- IDEAM-METEO Technical Note 005: Implementation of statistical methods and quality assurance to meteorological databases within the framework of the ENANDES Project.</p> <p>- Document updated in the phases of needs detection and analysis (1), Design (2), Construction (3). Identification of needs, Definition of objectives, design, and processing of analysis. - Document with the preparation of precipitation and temperature inputs for seasonal hydrological prediction purposes.</p> |                                                                                                                                              |
| Outputs | <p>No. of products describing (a) climatological values or (b) current status of weather/water variables.</p> | <p>Section on Observing networks, data and data management in the WMO CCSI</p> | <p>YEAR 2: 16 Products Chile DMC: 5 periodical products have been generated: daily bulletin, seasonal forecast, heat waves, cold waves, monitoring of minimum and maximum Temperature values Colombia IDEAM: 4 documents and seven 7 agro-</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <p>Climatological (historical) values and diagnostic products of climatic variables and hazards is completed for the demonstration areas</p> |

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|  |  |  | <p>climatic bulletins produced with ENANDES. - Evaluation of meteorological and hydrological information from the networks: data quality, methods, measurement procedures, verification, validation and storage. - Analysis of the information from hydrometeorological stations in the hydrographic sub-areas associated with the ENANDES project, which will be used to validate the information from remote sensors. - Long-term statistics ("climatology", "normal"), trends, of the agrometeorological reference products relevant to the sectors and communities targeted by the project. - ENANDES baseline document (maps and climatograms). Peru SENAMHI: No document yet available but 3 are under construction that will describe the variables in the pilot area . YEAR 3: 12 new products (+16 previously available = 28 documents) Colombia IDEAM: - Analysis of the climatology of the ENANDES project area based on the standard</p> |  |
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|         |                                                                       |                                                              | <p>climatological normal of precipitation and temperature for the period 1991-2020. - ENANDES</p> <p>Agroclimatic Bulletins: 8 publications Peru SENAMHI: 3 new products i) The climate characterization document for the department of San Martin has been published. The climate characterization document for Lima is available (design and layout phase). ii) The report and the spatial programming of the agro-climatic risk characterization and forecast in Python for coffee and hard yellow corn crops in the department of San Martin are available. iii) Hydrological modeling with SWAT+ in the Vilcanota river basin and the evaluation of the hydroelectric potential at the national level through the temporal reconstruction of historical precipitation data (1981-2022).</p> |                                                                                                                                              |
| Outputs | No. of products describing extreme values of weather/water variables. | Limited availability of organized information about extremes | <p>YEAR 2: 10 products Chile DMC: 2 (Annual Bulletin and a power point presentation) Colombia IDEAM: 3</p> <p>- Progress report on the evaluation of drought and/or excess water</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <p>Climatological (historical) values and diagnostic products of climatic variables and hazards is completed for the demonstration areas</p> |

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|  |  |  | <p>indicators in the study areas. - Report on extreme weather, climate and hydrological events threatening communities and agricultural and livestock production systems - ENANDES project study area. - Document with the identification of thresholds for monitored/forecast climate/water variables, products or indices beyond which significant impacts can be expected for a target sector and region.</p> <p>Peru SENAMHI: 5 of 6 products describing extreme values i) Very short-term rainfall warning (Nowcasting) ii) Short-term heavy rainfall warning (Nowcasting) iii) National weather warning (extended term) iv) Daily weather monitoring (v) Extreme event statistics (vi) Pilot impact-based rainfall forecasting for the Rima Basin YEAR 3: 1 new product (+10 previously available = 11 products) - Document: Climate analysis and extreme event analysis present in the area, as well as consolidation of an operational methodology for monitoring extreme weather events in the</p> |  |
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|         |                                                                                     |                       | area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                       |
| Outputs | No. of products showing derived climate/water indices to monitor recent conditions. | No products available | <p>YEAR 2: 7 products<br/> Chile DMC: 2 products<br/> Colombia IDEAM: 3 products -<br/> Protocol for field evaluation of drought and excess precipitation indicators in the ENANDES project study area. -<br/> Document with the evaluation of existing tools that support the generation of climate services, for application in the ENANDES project.<br/> - Document with the adjustment and validation of the drought monitor for its application in the ENANDES project.<br/> Peru SENAMHI: 2 out of 3 planned products showing climatic indices<br/> YEAR 3: 2 new product (+7 previously available = 9 products)<br/> Chile DMC: Drought Monitoring<br/> Colombia IDEAM: Proposed document for the validation of the agro-climatic indices presented by the Meteorological Sub-Directorate (Ideam) in the ENANDES project study area.<br/> Peru SENAMHI: 2 new products<br/> i) Agro-climatic risk at the national level, Senamhi's operational product.<br/> ii) The database for agrometeorological information</p> | Climatological (historical) values and diagnostic products of climatic variables and hazards is completed for the demonstration areas |

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|         |                                                                                                                            |              | reporting was completed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                         |
| Outputs | No. of stakeholders who expressed favourable opinion about the climatological and diagnostic products provided by ENANDES. | To be assess | <p>YEAR 2: 43 Chile DMC: not yet assessed Colombia IDEAM: 27 The ENANDES agro-climatic bulletin was built and adjusted according to the community's requirements, and therefore has the favourable opinion of five (5) indigenous reserves, five (5) peasant associations, eight (8) community action boards and nine (9) educational institutions. Peru SENAMHI: 16 out of 50 stakeholders (representatives of institutions) who have a favourable opinion on hydro-meteorological hydrometeorological products within the framework of ENANDES. YEAR 3: 1 new stakeholders (44 in total) Chile DMC: as it started later the activities at field level and so the community/end users engagement, such assessment hasn't been performed at the time of PPR3. Several surveys with end users were performed later during PPR4 period. Colombia IDEAM: 28 out of 28 stakeholders expressed favorable opinion on project products (100%).</p> | Percentage of stakeholders expressing favourable opinions about products has increased by at least 25%. |

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|         |                                                                                                                            |                                                                                     | Climate services meet the community's requirements, thus receiving favorable opinions from six (6) indigenous reserves, five (5) peasant associations, eight (8) community action boards, and nine (9) educational institutions. Peru SENAMHI: 92 officers (representatives of institutions) who have a favorable opinion on hydro-meteorological products of ENANDES (100%).                                                                                                                                                                                                                   |                                                                      |
| Outputs | No. of tools or procedures implemented and tested to forecast extreme weather events, and that reflect the needs of users. | Section on forecasting systems in the WMO CCSI identified the need for this output. | YEAR 2: 10 Chile DMC: 1. There is a tool for internal use by NAC forecasters that contains thresholds. Annual subscription of the European model data. Colombia IDEAM: As general advance, the GOES16 based precipitation product was validated on a monthly scale to feed the GR2M model. Although it does not present very high errors, the bias and certainty are not good; the search for a methodology to obtain intraday scale flows necessary to feed an EWS must continue; the GeoGloows product is outlined to be used in the daily hydrological forecasting phase. There are nine (9) | Weather forecasting systems that focus on multiple types of hazards. |

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|  |  |  | <p>documents showing this progress. -</p> <ul style="list-style-type: none"> <li>- Analysis of statistical or process models that relate meteorological/climate hazards to sector-specific impacts on target sectors and pilot regions. -</li> <li>- Identification of thresholds for monitored/forecast climate/water variables, products or indices beyond which significant impacts can be expected for a target sector and region. -</li> <li>- Modelling strategy involving modelling aimed at forecasting and/or prediction of floods, flash floods, droughts or torrential floods, according to the hazard prioritization performed. -</li> <li>- Analysis of the modelling strategy oriented to flood forecasting in the pilot basins and recommendations for operational applications. -</li> <li>- Results of the application of forecast-oriented modelling to a watershed within the pilot area. -</li> <li>- Proposed application of forecast-oriented modelling within the pilot area. -</li> <li>- Analysis of inputs available at Ideam on seasonal hydrological forecasting and recommendations for improvement. -</li> <li>- Results of the forecast-oriented</li> </ul> |  |
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|  |  |  | <p>modelling, validation of results, tools and requirements for operational application. - Final document with a summary of the proposed processes, information sources, tools and information flows for forecast-oriented hydrological modelling. Peru SENAMHI: 3 protocols are under construction with improved procedures for information and nowcasting and a proposed guideline for impact-based forecasting YEAR 3: 2 New tools have been finalized and 1 to be finalized Peru SENAMHI: i) Procedure for the preparation of weather forecasts (nowcasting and short-term forecasts), a document that SENAMHI has. ii) A proposal for an IMPROVED protocol for the preparation, communication and transmission of weather warnings has been prepared and is in the process of validation and approval. iii) A (preliminary) guide on impact-based forecasts, scheduled for 2024. The impact assessment of extreme events in the project's intervention areas</p> |  |
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|         |                                                                                                                               |                                                                                                             | has been completed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                   |
| Outputs | No. of risk management stakeholders who expressed favorable opinion about the forecasts provided by ENANDES.                  | Weather forecasting systems focusing on multiple types of hazards do not exist.                             | YEAR 2: 1 Chile DMC: No information yet Colombia IDEAM: Departmental Committee for Disaster Risk Management of Cauca and Municipal Committees and Participants the Community Agro-climatic Tables Peru SENAMHI: It is foreseen to engage 15 institutions in DRR YEAR 3: 16 Peru SENAMHI: 42 representatives of institutions related to DRM have a favorable opinion about SENAMHI's hydrometeorological products, according to information gathered during local actions within the framework of ENANDES. | Reduced uncertainty in weather forecasts.                                                                                                                                                         |
| Outputs | No. of products that show sub-seasonal and seasonal forecasts of expected regional climate conditions in demonstration sites. | Limited number of seasonal products are available. Very few products are available for sub-seasonal scales. | YEAR 2: 6 WMO: 1. WMO engaged the International Research Institute for Climate and Society of University of Columbia to design a rainfall subseasonal forecast system based on IRI Extended Logistic Regression (ELR) Global Subseasonal Forecast System. The system was implemented and IRI experts trained key personnel of DMC, IDEAM and SENAMHI on its application. A full technical user                                                                                                            | Sub-seasonal to seasonal products are generated and used for decision making in the demonstration areas and for priority sectors. S2S forecasts in the demonstration areas are registered in WIS. |

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|  |  |  | <p> manual is under construction. Chile<br/> DMC: 2 products available Colombia<br/> IDEAM: 2 products available Peru<br/> SENAMHI: 2 products available<br/> out of the 4 planned for pilot areas<br/> YEAR 3: 13 New products (+ 6 previously available = 19 in total) WMO:<br/> 1. Finalized the "Guía de pronósticos subestacionales del proyecto ENANDES" Chile<br/> DMC: 1 Regional Bulletin of the Participatory Agroclimatic Roundtable (MAP)<br/> Colombia IDEAM: 8 New Products (6) Reports:<br/> Hydrological prediction results for July-December. (1) Report:<br/> Hydrological modeling for monthly seasonal hydrological prediction in the Upper Magdalena macrobasin. (1) Document: Proposal for the dissemination of prediction results and HydroSOS platform. Peru<br/> SENAMHI: 3 products i) Monthly sub-seasonal forecasts have been optimized by including additional predictors and updated the operational download source of monthly forecasts. An exploration of </p> |  |
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|         |                                                                  |                                                                                                                  | the daily CFS forecasts scaled to 4 weeks calibrated (Quanty Mapping) with PISCO data has been carried out. ii) Technical Guide “Prototype of weekly scale sub-seasonal forecasts”, which contains the steps involved in the weekly scale sub-seasonal forecast, details on the methodology and data used, as well as the description of the post-processing, as a support to the user for a better interpretation of the forecast . iii) The dynamic model was implemented using GEFS at the national level and at weekly time frequency. The methodological and conceptual design for seasonal forecasting was carried out using performance evaluation metrics and forecasting ability. The model is in the process of evaluation to be operational by 2024. |                                                                                             |
| Outputs | No. of metrics implemented to assess the skill of S2S forecasts. | Few forecast products have public reports describing performance evaluation and quantification of uncertainties. | YEAR 2: Metrics not yet implemented<br>To be measured at PPR3<br>YEAR 3: 3 Reports<br>Chile DMC: 1 document<br>Colombia IDEAM: 1 Report: Validation and evaluation of precipitation and temperature estimates. Peru SENAMHI: 1 Document, the implementation of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Values of metrics used to assess the skill of S2S forecasts have improved by project’s end. |

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|         |                                                                                  |                                                                                                                                                | the improved sub-seasonal weather forecast prototype, verification scripts and final recommendations for its application were carried out.                                                                                                                                                              |                                                                                                                                                               |
| Outputs | No. of tools developed to facilitate NMHS access to climate change projections.  | Each NMHS has to develop its own approaches to fetch and analyse projections of regional climate change from multiple institutions and models. | Chile DMC: No tools available yet<br>Colombia IDEAM: 1 joint methodology developed with IRI and based on NextGen using NMME assembly and spatial pattern calibration. Peru SENAMHI: No tools available yet                                                                                              | Tools have been implemented and shared among ENANDES NMHSs to fetch and analyse projections of regional climate change from multiple institutions and models. |
| Outputs | No. of institutions and/or models for which projections have been made available | Each NMHS has to develop its own approaches to fetch and analyse projections of regional climate change from multiple institutions and models. | Chile DMC: 1 facilitated by the Centro de Ciencia y Clima y Resiliencia (CR2) affiliated to the University of Chile. Colombia IDEAM: The latest projections used were those of the 3rd National Communication on Climate Change (2015). Peru SENAMHI: Not available yet                                 | Tools have been implemented and shared among ENANDES NMHSs to fetch and analyse projections of regional climate change from multiple institutions and models. |
| Outputs | No. of tools implemented to downscale seasonal forecasts in space/time.          | No region-specific calibration procedures of climate forecast outputs performed in this region                                                 | Chile DMC: 3 (1 for each variable, precipitation, minimum Temperature, Maximum Temperature)<br>Colombia IDEAM: No calibration available yet<br>Peru SENAMHI: 2 procedures for seasonal prediction<br>i) The implementation of seasonal forecasting was carried out using artificial intelligence. ii) A | Seasonal forecasts downscaled, at least for demonstration adaptation areas.                                                                                   |

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|          |                                                                                                    |                                                                                                           | system was developed to verify global and regional numerical models for sub-seasonal forecasting.                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                  |
| Outputs  | No. of tools and products showing bias-corrected seasonal forecasts and climate change projections | Collaboration with academia/research institutions to improve forecasting systems and products is limited. | Chile DMC: 3 (1 for each variable, precipitation, minimum Temperature, Maximum Temperature)<br>Colombia IDEAM: not available<br>Peru SENAMHI: 3 procedures implemented to increase the spatial resolution of increasing the spatial resolution of future climate scenarios                                                                                                                                                                                                                                                                           | Bias-corrected forecasts and climate change projections available, at least for demonstration sites. The number of academia/research institutions collaborating with NMHSs on forecasting systems has increased at least by 33%. |
| Outcomes | Components of a National Framework for Climate Services to which ENANDES has made contributions.   | 0                                                                                                         | YEAR 2: Chile DMC: NFCS not yet available<br>Colombia IDEAM: As Colombia was the only country progressing on NFCS roadmap, some steps further have been made with ENANDES, three (3) documents available: - Proposed document of a research program to support components of the NCSF. - Preliminary action plan for the full implementation of Colombia's National Framework for Climate Services. - action plan for the agricultural sector for the implementation of the NCSF.<br>Peru SENAMHI: Currently Peru does not have NFSC<br>YEAR 3: Peru | All relevant stakeholders have been approached and invited to participate in ENANDES. All institutions who agreed to participate in ENANDES have remained engaged and making contributions to the project.                       |

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|  |  |  | <p>SENAMHI:<br/>ENANDES</p> <p>permitted a progress on 4 componentes of NFCS: 1. Updating of the assessment of station networks in the intervention areas; the metadata process has been automated; rescue of information from spreadsheets in both pilot zones. 2. A proposal for the vision and implementation of the Users Interface Platforms in the project's intervention areas was prepared. Agroclimatic training workshops have been held for local producers in the San Martin region, through the implementation of the MTA; as well as workshops for the implementation of risk management tables in the Rimac basin and for a proposal for an agrometeorological service. 3. Seasonal and sub-seasonal forecasting tools have been optimized at the national and local levels. A research agenda for climate services is in place. 4. The capacities of agrometeorology and climatology specialists have been strengthened through the course “Determination of crop calendars based on agroclimatic climate indicators</p> |  |
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|          |                                                                                      |                                                                                                                                           | calculated on quality and homogenized data. 3 courses: Data quality control; hydrological modeling - VIC and Energy.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                            |
| Outcomes | No. of formal agreements with different institutions from climate-sensitive sectors. | Weak institutional coordination and articulation. Mechanisms for NMHSs to receive stakeholder feedbacks on products/services are limited. | <p>YEAR 2: 15 Agreements Chile DMC: 8 Agreement/MoU signed by DMC/DGAC with different national institutions (Fundación para el Desarrollo Fruticola, Instituto Nacional de Investigación Agraria, Ministerium de Agricultura, Commission Nacional para el Medioambiente, Portal Fruticola, Fundación para la Inovacion Agraria. Colombia IDEAM: 5 Agreement signed with different institution of joint implementation of projects and programs: Proyecto EUROCLIMA + (CIIFEN-IDEAM), Proyecto CAF-CIAT-IRI-IDEAM, Convenio DIMAR-IDEAM, Convenio UPRA-IDEAM, Convenio WFA-IDEAM. Peru SENAMHI: Has signed MoU with 2 Institutions out of 6 identified as strategic allies.</p> <p>YEAR 3: 3 New Agreements (+15 = 18) Peru SENAMHI: 5 out of 6 MoU signed 1. Red Cross: July 2021, Specific Agreement 2.</p> | All relevant stakeholders have been approached and invited to participate in ENANDES. All institutions who agreed to participate in ENANDES have remained engaged and making contributions to the project. |

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|  |  |  | <p>Framework Agreement with Practical Action: February 2023. 3. Memorandum of agreement Senamhi - CODEPISAM for the participation of indigenous peoples of San Martin in ENANDES project activities. 4. Technical Agroclimatic Roundtable (Mesas Tecnicas Agroclimaticas - MTA in Spanish) in San Martin, 25/08/23 launching meeting of the MTA San Martin in Tarapoto, with the participation of the Vice Governor, the Director of Regional Economic Development, Director of INIA, Director of Agricultural Competitiveness, SENASA Representative, Alto Mayo Special Project, Regional Environmental Authority, associations of MAD and coffee producers, ENANDES technical team, academia, among others. 5. MIDAGRI (20/10/23) - Framework agreement with the purpose of promoting inter-institutional collaboration through coordination, interaction and</p> |  |
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|          |                                                                                     |                                                                                                                       | reciprocity mechanisms between the parties within the scope of their competencies, for the benefit of agricultural producers at the national level.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                            |
| Outcomes | No. of sectoral models used to translate climate conditions into expected outcomes. | Tools and mechanisms to translate and tailor climate information are not integrated into NMHS operational procedures. | <p>YEAR 2: 1 1 Model for Agriculture.<br/>WMO: No sectoral models have been introduced into NMHSs routines, nevertheless WMO provided training to Chile, Colombia and Peru on the application of CLIMADAPT and INCLICS in order to use homogenised precipitation series to evaluate variation to crop calendars.</p> <p>YEAR 3: 2 New models (+1 = 3)<br/>SENAMHI Peru: 2 improved sectoral models -completed i) A methodological proposal was developed to estimate the agro-climatic risk forecast for extremes of temperature and precipitation for coffee and MAD crops. ii) The daily database of precipitation and potential evapotranspiration at the national level is available; the hydrological modeling with ARNO-VIC calibrated and validated for the Pacific, Atlantic and Tititcaca watersheds (at the national</p> | All relevant stakeholders have been approached and invited to participate in ENANDES. All institutions who agreed to participate in ENANDES have remained engaged and making contributions to the project. |

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|         |                                                                                                                |                                                                                                                                          | level); and the hydrological and hydraulic modeling in the Huallaga river basin using the RRI hydrodynamic model.                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                    |
| Outputs | Maps of stakeholders in each demonstration area, including roles, functions and relevance to ENANDES (Yes/No). | No regular interactions with users to identify requirements are in place                                                                 | Chile DMC: Yes<br>Colombia IDEAM: Yes<br>Peru SENAMHI: Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Maps of stakeholders with relevant regional, national subnational and local strategic partners completed for each demonstration area and reported. |
| Outputs | No. of stakeholder mapping exercises completed in each country and for each sector.                            | no mapping available                                                                                                                     | YEAR 2: 11 Chile DMC: 5 exercises<br>Colombia IDEAM: 5 exercise of 1 day each. 1 exercise for each sub-watershed (Piedras, Palacé, Pisoje, Molino y Vinagre) Peru SENAMHI: 1 exercise completed<br>YEAR 3: 1 new mapping exercise (+11 =12) Peru SENAMHI: Completed 2 different mapping exercises - 1 stakeholder mapping report, which includes 1 inventory for each sector: water, energy and agriculture, and for each intervention zone. - 1 specific stakeholder mapping for the agricultural sector in the San Martin region. | Maps of stakeholders with relevant regional, national subnational and local strategic partners completed for each demonstration area and reported. |
| Outputs | No. of sectoral institutions approached as potential ENANDES partners.                                         | Sporadic assistance to users to interpret/use climate predictions and products. Weak relationship and communication channels with users. | YEAR 2: 31 Institutions Chile DMC: 13 institutions have been approached since inception. 7 of them were already collaborating with DMC Colombia                                                                                                                                                                                                                                                                                                                                                                                     | 30                                                                                                                                                 |

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|  |  |  | <p>IDEAM: 19 Institutions have been approached. 3 were already collaborating before the project inception. An increase of 16.</p> <p>Peru SENAMHI: 9 Institutions were identified as relevant actors and approached to engage them. YEAR 3: 71 Institutions in total Chile DMC:41 Institutions approached to date (28 in 2023) 1.CR2, 2.Asoc. Municipalidades Reg. Valparaíso, 3.Gobernador Valparaíso, 4. Delegado Presidencial Reg. Valparaíso, 5. Del. Presidencial Provincia San Felipe, 6. Del Presidencial Prov. Los Andes 7. CNR, 8. Del Presidencial Pov. Quillota. 9-20 Prodesales comunas Reg. Valparaíso (local communities), 21-41 Municipalidades cuenca (local communities) Peru SENAMHI: 12 New Institutions, achieving 21 in total (MINAM, MIDAGRI, ANA, CENEPRED, INDECI, GORE LIMA, Mancomunidad de Lima Este, Municipalidad de Santa Eulalia, Agencia Agraria de Santa Eulalia, Agrorural zonal,</p> |  |
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|         |                                                                                                                                                                                |                                                                                                                    | Cáritas Chosica, GORE SAN MARTIN, DRASAM, Gerencia de Desarrollo Económico Regional, INIA, IIAP, SENASA, Proyecto Especial Altomayo, Proyecto Especial Huallaga Central y Bajo Mayo, Conservación Internacional, Universidad Nacional de San Martí)                                                                                                                                                                                                                                                                                                                    |                                                                                                                     |
| Outputs | No. of stakeholder institutions in which women play an important role (high percentage of membership, positions in organization, gender perspective is explicitly considered). | Gender Baseline Assessment to be done in the first year of the project to serve as baseline for measuring progress | YEAR 2: 9 Chile DMC: not yet assessed, to be done by PPR3 Colombia IDEAM: 7 Institutions with women playing relevant roles. Secretaría de Agricultura, Medio Ambiente y Desarrollo Rural and the DRR Office of TOTORO Municipality, Red Cross, CORPORACIÓN AUTÓNOMA REGIONAL DEL CAUCA / C.R.C. (Decentralized Unit of the Ministry of Environment), EMPRESA de ACUEDUCTO y ALCANTARILLADO de Popayán S.A. E.S.P, Fundación Procuencia río Las Piedras, CORPORACIÓN colombiana de investigación agropecuaria AGROSAVIA. Peru SENAMHI: 2 collaborating institutions are | No. of stakeholder institutions in which women play an important role has increased by at least 1/3 since baseline. |

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|         |                                                                 |                       | <p>promoting women role and empowerment</p> <p>YEAR 3: 26 in Total (17 in 2023) Chile DMC: 2 Institutions (Mujeres Campesinas del Llayllay y Consejo Asesor Regional)</p> <p>Colombia IDEAM: 9 Institutions (Total 9 institution:</p> <p>Acueducto de Popayán; Fudación Río Piedras; Cruz Roja Colombiana – Cauca; Secretaría de Agricultura – Cauca; Alcaldía de Popayán; SENA; Secretaría de Agricultura y Gestión del riesgo de Totoró; Agrosavia; Asohofrucol) Peru SENAMHI: 15 institutions (Gobierno Regional de Lima, Practical Action y Red de Lideres Resilientes de la Cuenca del Rímac, Mancomunidad del Este, Cáritas, DRA, en la región Lima, y Asociación Bosque de la Nuwas, CODEPISAM, Asociación de Mujeres Choco Warmis, Autoridad Ambiental Regional y Proyecto Especial Huallaga Central y Bajo Mayo, INIA, ARA, IIAP, DRASAM, GRDESM en la región San Martín.)</p> |   |
| Outputs | No. of formal agreements signed with potential ENANDES partners | No agreement in place | <p>YEAR 2: 4 Chile DMC: No agreements in place</p> <p>Colombia IDEAM: 2</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 6 |

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|         | from multiple sectors.                                                                  |                              | <p>Agreements in place (Fundación Rio Piedras y Fundación Ecohabitats) Peru SENAMHI: 2 Agreements signed YEAR 3: 5 Peru SENAMHI: 3 Agreements signed in total (CODEPISAM, 1 Multilateral agreement on the Technical Agroclimatic RoundTable of San Martin; Ministry of Agriculture Development)</p>                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                         |
| Outputs | No. of lessons learned regarding successful local participation platforms and processes | No systematization available | <p>YEAR 2: 5 Chile DMC: 2 Documents available Colombia IDEAM: A document was elaborated that gathers the lessons learned in the different activities of the ENANDES project in Cauca: Socialization, evaluation of the Community EWS, baseline, Community Agroclimatic Tables, Field Schools, Co-design and implementation of adaptation measures, gender roles, vulnerability and adaptive capacity. Peru SENAMHI: 2 reports with lessons learned on community engagement YEAR 3: 6 Chile DMC: 1 Systematization of the process to set up Participatory Agroclimatic Roundtables (Mesas Agroclimatic as</p> | <p>A document reviewing good practices and lessons learned to foster effective engagement of indigenous and peasant communities in co-designing local climate adaptation activities</p> |

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|         |                                                                                                                               |                                                                                 | Participativas - MAPs)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                            |
| Outputs | No. of “mental models” studies of climate perceptions to learn what stakeholders know or think they know about their climate. | A gap exists between the information developed by NMHSs and the needs of users. | Chile DMC: No mental models studies carried out<br>Colombia IDEAM: No mental models studies carried out<br>Peru SENAMHI: No mental models studies carried out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | A document reviewing good practices and lessons learned to foster effective engagement of indigenous and peasant communities in co-designing local climate adaptation plans and activities and necessary climate services. |
| Outputs | No. of interactions with stakeholders to discuss needs and expectations and to show available climate services.               | A gap exists between the information developed by NMHSs and the needs of users. | YEAR 2: 17<br>Colombia IDEAM: 4 Initiatives. IDEAM is using the Agroclimatic Committee model (Mesas Técnicas Agroclimáticas) as a multistakeholders and multilevel participatory platform to discuss and reach consensus of common interests and possible strategies to cope with adaptation needs. During reporting period IDEAM could set up Community Roundtables in the pilot areas as well as consolidate the Departamental RoundTable of Cauca. At the same time it implemented Field Schools with local population and seminar on drought. At the same time IDEAM hold monthly meetings with the National Council for Operation in Electricity Sector (Consejo Nacional de Operación del | A document reviewing good practices and lessons learned to foster effective engagement of indigenous and peasant communities in co-designing local climate adaptation plans and activities and necessary climate services. |

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|  |  |  | <p>sector eléctrico) and the Committee of public and private energy providers (SURER). This exchange is supporting a permanent dialogue among IDEAM and the sector. Chile, DMC: 7 Initiatives. With the support of Ministry of Energy created an Energy Roundtable to address the needs of energy utilities and providers and find possible new services of interest for that sector. During 2022 DMC could progress with 7 new initiatives: presentation event, national launch, Agrometeo launch, reparation of Participatory Agroclimatic Roundtables, Energy Roundtables, Coordination meetings with ONEMI, and with CONADI. Peru SENAMHI: 6 Initiatives to present the project in demonstration areas and engage authorities, communities and producers. YEAR 3: 31 new initiatives (+17 = 48 initiatives/meetings in total) Chile, DMC: 6 new initiatives (4 MAPs Sessions + 2 Focus Groups in EL Quisco and Llay-Llay) Colombia IDEAM: 13 new</p> |  |
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|         |                                                                                                                         |                                                                                                    | initiatives (4 Sessions of Community Field Schools + 9 Sessions of 3 MTAs)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                            |
| Outputs | No. of climate products for which original and/or revised design/formats has been discussed with stakeholders/partners. | Limited mechanisms in place for evaluating users' uptake and satisfaction about products/services. | <p>YEAR 2: 3 Chile DMC: 3 Colombia IDEAM: The design of climate products such as maps, graphs and bulletins have been discussed with local stakeholders</p> <p>Peru SENAMHI: No products have been finalized yet, but SENAMHI plans to elaborate 4 of them, co-designed with end users.</p> <p>YEAR 3: 9 new products (+ 3 = 12 in total) Chile DMC: 6 new products, reaching 9 in total (Hazards Report, Agrometeorological Warning, Cold Hours Bulletin, Decadal Degree Day, Frost Monitor, Agroclimatic Bulletin, Agroclimatic Yearbook, Agrometeorological Forecast, Weekly Forecast )</p> <p>Peru SENAMHI: 3 out of 4 documents have been finalized: - Sint Martin: 4 Agroclimatic Bulletin for the MTA - Climate Atlas of San Martin (published). - Climate atlas of Lima (in layout and design).</p> | A document reviewing good practices and lessons learned to foster effective engagement of indigenous and peasant communities in co-designing local climate adaptation plans and activities and necessary climate services. |
| Outputs | No. of project activities that explicitly assess gender-specific potential differences                                  | Limited mechanisms in place for evaluating users' uptake and satisfaction about                    | YEAR 2: 1 Chile DMC: 1 Agreement signed with the "Instituto de Desarrollo                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | A document reviewing good practices and lessons learned to foster effective                                                                                                                                                |

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|         | in access, comprehension and use of weather/climate information.                             | products/services.                                                                            | Agropecuario " (INDAP) Colombia IDEAM: No specific agreement Peru SENAMHI: Not yet assessed YEAR 3: 1 new (2 in total) Peru SENAMHI: UIP proposal developed based on participatory workshops with local stakeholders in the intervention zones and the project's prioritized sectors, exploring the needs and use of meteorological and climatic information. Rimac: Active participation of women representatives of the Red de Lideres Resilientes de la Cuenca del Rio Rimac. San Martin: participation of women from CODEPISAM, women producers associations Chocowarmi and Bosque de las Nuwas, Atunwarmis de Chipeza. | engagement of indigenous and peasant communities in co-designing local climate adaptation plans and activities and necessary climate services.                                                                             |
|         | Percentage of users surveyed who report satisfaction with the contents of services provided. | No mechanism in place to receive feedback about climate products/services on a regular basis. | Chile DMC: Not yet assessed Colombia IDEAM: Not yet assessed Peru SENAMHI: 85% of final users report satisfaction with services provided by SENAMHI                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | A document reviewing good practices and lessons learned to foster effective engagement of indigenous and peasant communities in co-designing local climate adaptation plans and activities and necessary climate services. |
| Outputs | Percentage of users surveyed who report understanding of the information produced.           | No mechanism in place to receive feedback about climate products/services on                  | Chile DMC: Not yet assessed Colombia IDEAM: Not yet assessed Peru SENAMHI: 68% of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | A document reviewing good practices and lessons learned to foster effective                                                                                                                                                |

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|         |                                                                                                                         | a regular basis.                                                                                                | users report understanding of climate services provided                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | engagement of indigenous and peasant communities in co-designing local climate adaptation plans and activities and necessary climate services.                                                                             |
| Outputs | Percentage of users surveyed who report having used the information produced to modify any of their decisions/actions.  | No mechanism in place to receive feedback about climate products/services on a regular basis.                   | Chile DMC: Not yet assessed<br>Colombia IDEAM: Not yet assessed<br>Peru SENAMHI: 63% of the users report they use the information/service provided by SENAMHI.                                                                                                                                                                                                                                                                                                                                                                                                                                              | A document reviewing good practices and lessons learned to foster effective engagement of indigenous and peasant communities in co-designing local climate adaptation plans and activities and necessary climate services. |
| Outputs | No. of statistical or process models implemented to convert sub-seasonal and seasonal forecasts into sectoral outcomes. | Limited experience in operational linkage of climate information with process models (hydrological, agronomic). | YEAR 2: 1 WMO: Agriculture sector has been address involving the University of Tarragona in order to transfer approach and models to estimate how precipitation scenarios may affect crops calendars of relevant crops.<br>Training Agenda finalized for the three countries.<br>YEAR 3: 4 WMO: Training on VIC Hydrological model to Colombia, Peru, Bolivia, Ecuador and Argentina.<br>Colombia IDEAM: Use of Rural Genius Model (GR2M) hydrologic rainfall-runoff model<br>Peru SENAMHI: Use of different own models for: i) Agro-climatic risk forecast for coffee, SENAMHI operation. ii) Hydrological | Agroclimatic reports for main crops in demonstration sites.                                                                                                                                                                |

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|         |                                                                                             |                                                                                   | modeling at the national level iii)<br>Agroclimatic risk characterization for coffee and hard yellow corn in San Martin.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                             |
| Outputs | Results of calibration/validation analyses for “translation” models in demonstration areas. | Limited availability of agroclimatic indices for some of the demonstration sites. | <p>YEAR 2: Chile DMC: Not yet implemented<br/>Colombia IDEAM: The hydrological model was calibrated with 6 different precipitation forcing, with the purpose of establishing which of these is the best entry to it. CHIRPS IRE is the one that produces better simulated results. Although it’s not detailed in the potential evapotranspiration , the increase of stations at local level could improve the performance. Peru SENAMHI: The calibration/validation of conversion" models with respect to the hydrologic model in the demonstration areas was carried out.</p> <p>YEAR 3: Colombia IDEAM: 2 - Results of the recalibration and validation of the GR2M model for different climatological conditions (Neutral, La Niña, El Niño) in the pilot basins, including monthly results of seasonal hydrological prediction. - Document: Seasonal hydrological prediction for the</p> | Agroclimatic reports for main crops in demonstration sites. |

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|         |                                                                                                                                                                  |                                                                | hydrographic subzones of the Upper Cauca.                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                             |
| Outputs | No. of consultations with local authorities, resource managers or technical advisors to judge appropriateness of the climate-impacts linkages established.       | Experience limited to the Agro-Climatic Committees of Colombia | Chile DMC: 4 Expertes have been consulted: Pablo Logos (CONAF), Fabian Bustos (MEN), Cristian Meza (UGRA), Andres Olea (Chilquinta) Colombia IDEAM: The risk management plans of the municipalities of Popayán, Purace and Totoró were consulted. Peru SENAMHI: No consultations yet                                                                                                                                                                              | Agroclimatic reports for main crops in demonstration sites. |
| Outputs | No. of consultations in which peasants and indigenous communities have contributed local knowledge to “translation” of impacts in the absence of process models. | Experience limited to the Agro-Climatic Committees of Colombia | YEAR 2: 6 Chile DMC: No consultations yet Colombia IDEAM: 6 Community meetings for EWS assessment with indigenous and farmer that allowed to identifying potential climate impacts at the local level. Peru SENAMHI: No consultations yet YEAR 3: 4 new workshops Colombia IDEAM: 4 experiential workshops of the Community Early Warning System, indigenous and peasant participants shared community knowledge about initial response to threatening phenomena. | Agroclimatic reports for main crops in demonstration sites. |
| Outputs | No. of consultations with users on perceived significant impact thresholds for climate risks.                                                                    | Limited assessment of agroclimatic risks.                      | Chile DMC: 1 consultation hold that combined with earlier studies reviews and                                                                                                                                                                                                                                                                                                                                                                                     | Assessment of agroclimatic risks for demonstration sites.   |

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|         |                                                                                                                                                                                      |                                                                                                                                                                                                                    | platforms meetings have produced useful information at the sectoral level<br>Colombia IDEAM: No consultations yet<br>Peru SENAMHI: 1 consultation for needs assessment on agrometeorological information                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                            |
| Outputs | No. of outreach efforts conducted each month (general audience articles, short videos, web site articles, blog entries, presentations at public fora).<br>Broken down by month/year. | Insufficient mechanisms to exchange quality information among institutions at regional, national and subnational level<br>Lack of context-specific communication channels to facilitate close interactions between | YEAR 2 Chile DMC: No outreach efforts implemented yet<br>Colombia IDEAM: 67 publications end twitter and 28 in Instagram along 2022<br>Peru SENAMHI: 16 actions and products for dissemination and visibility of ENANDES' progress in the two pilot areas.<br>YEAR 3: Chile DMC: 3 Presentations at seminars on local agriculture and livestock associated with climate change and adaptation in the Aconcagua Basin.<br>Colombia IDEAM: 54 tweets on X; 36 posts on Instagram; 32 posts on Facebook; 11 posts on LinkedIn<br>Peru SENAMHI: 51 Actions and products for the dissemination and visibility of ENANDES' progress for the two intervention areas | At least 10 outreach actions per month during ENANDES lifetime. Content of ENANDES web site, blog or social networks updated at least six times per month. |
| Outputs | No. of messages, products (diagnostics, forecasts), and warnings disseminated via various media                                                                                      | Insufficient mechanisms to exchange quality information among institutions at regional, national and subnational level                                                                                             | YEAR 2 Chile DMC: 6 Messages disseminated during the first 2 years<br>Colombia IDEAM: not done yet<br>Peru SENAMHI: 16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | At least 10 outreach actions per month during ENANDES lifetime. Content of ENANDES web site, blog or social networks updated at                            |

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|         | (email, social networks, web, radio, TV, SMS). Broken down by month/year.                                                       | Lack of context-specific communication channels to facilitate close interactions between                                                                                                                           | messages disseminated through the media per year and for both zones. YEAR 3: Colombia IDEAM: 8 ENANDES agroclimatic bulletins; 4 ENANDES forecast bulletins; 5 press releases; 5 radio spots; 5 reels for social media Peru SENAMHI: 47 messages disseminated through the media per year and for both zones.                       | least six times per month.                                                                                                                                 |
| Outputs | Access statistics for ENANDES and NMHSs web sites (for NMHSs, sections related to ENANDES). Breakdown by location, month, year. | Insufficient mechanisms to exchange quality information among institutions at regional, national and subnational level<br>Lack of context-specific communication channels to facilitate close interactions between | Chile DMC: Yes on a monthly basis<br>Colombia IDEAM: Yes on interactions and visits to institutional social medias and web sites as well as visit to publications related to ENANDES Peru SENAMHI: Yes on interactions and visits to institutional social medias and web sites as well as visit to publications related to ENANDES | At least 10 outreach actions per month during ENANDES lifetime. Content of ENANDES web site, blog or social networks updated at least six times per month. |
|         | No. of products, tutorials or any other electronic content downloaded. Breakdown by location, time.                             | Insufficient mechanisms to exchange quality information among institutions at regional, national and subnational level<br>Lack of context-specific communication channels to facilitate close interactions between | Chile DMC: At the moment only number of views are registered<br>Colombia IDEAM: Not done yet<br>Peru SENAMHI: Not done yet                                                                                                                                                                                                         | At least 10 outreach actions per month during ENANDES lifetime. Content of ENANDES web site, blog or social networks updated at least six times per month. |
| Outputs | No. of social media entries liked, re-sent, or commented.                                                                       | Insufficient mechanisms to exchange quality information among                                                                                                                                                      | YEAR 2 Chile DMC: 11 Tweets with 1-17 average likes and 1-6 shares;                                                                                                                                                                                                                                                                | At least 10 outreach actions per month during ENANDES lifetime. Content of                                                                                 |

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|         |                                                                                                       | institutions at regional, national and subnational level<br>Lack of context-specific communication channels to facilitate close interactions between                                                               | 6 Facebook publications, with 3-17 average likes, 0 shares; 6 Instagram posts, with 20-80 average likes.<br>Colombia IDEAM: 67 publications end twitter, 212 likes , 28 retweet, 28 publications end Instagram , likes 712, 14 publications 358 likes 35 shares, 2 publications in a local newspaper.<br>Peru SENAMHI: SENAMHI reports 160 interactions with social medias on ENANDES related issues and news.<br>YEAR 3: Colombia IDEAM: 54 tweets on X (26 comments, 212 shared, 610 likes), 36 posts on Instagram (20 comments, 1327 likes), 32 posts on Facebook (9 comments, 76 shared, 298 likes), 11 posts on LinkedIn (25 shared, 141 reactions) Peru SENAMHI: 771 Interaction on institutional social medias | ENANDES web site, blog or social networks updated at least six times per month.                                                                            |
| Outputs | No. of local women playing important roles in disseminating climate information to their communities. | Insufficient mechanisms to exchange quality information among institutions at regional, national and subnational level<br>Lack of context-specific communication channels to facilitate close interactions between | YEAR 2: 43 Chile DMC: 16 local women are playing a relevant role in disseminating the information.<br>Colombia IDEAM: 8 local women belonging to local communities and "juntas de accion".<br>Peru SENAMHI: 19 women are recognized to play a relevant role in the 2                                                                                                                                                                                                                                                                                                                                                                                                                                                  | At least 10 outreach actions per month during ENANDES lifetime. Content of ENANDES web site, blog or social networks updated at least six times per month. |

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|         |                                                                                                                                        |                                                                                                                                                                                                                            | <p>pilot areas. YEAR 3: 85 Chile DMC: 6 more representants of the Comité de Agencia de Area - CADA of INDAP. (+16=22) Colombia IDEAM: 9 local women belonging to local communities and "juntas de accion, Asoproquintana y Resguardo Indigena Puracé Peru SENAMHI: 34 women are recognized to play a relevant role in the 2 pilot areas.</p>                                                                                                                                                                                                                                        |                                                                                                                                                                   |
| Outputs | <p>No. of members of indigenous or peasant communities playing important roles in disseminating climate information to their peers</p> | <p>Insufficient mechanisms to exchange quality information among institutions at regional, national and subnational level<br/>Lack of context-specific communication channels to facilitate close interactions between</p> | <p>YEAR 2: 67 Chile DMC: Not yet assessed Colombia IDEAM: 27 persons among members of Sectorial Associations (ASOCAMPO; ASOPROVIT, ASOPESCA etc), local communities (Resguardos Poblazon, Quintana, Purace, Polindara y Novirao) and the "Juntas de Accion Comunales" (Pisoje Bajo y Alto, El Hogar, EL Sendero, Santa Barbara, San Alfonso, Union Cabrera, Claridad). Peru SENAMHI: 40 members of indigenous and non-indigenous communities recognized as climate informants<br/>YEAR 3: 85 Chile DMC: Colombia IDEAM: 47 persons among members of Sectorial Associations Peru</p> | <p>At least 10 outreach actions per month during ENANDES lifetime. Content of ENANDES web site, blog or social networks updated at least six times per month.</p> |

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|         |                                                                  |   | SENAMHI: 40 members of indigenous communities are actors recognized as drivers of climate information in their locality, for the two intervention zones.                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                     |
| Outputs | No. of meetings coordinated in relation to NFCS planning.        | 0 | <p>YEAR 2: No meetings YEAR 3: Colombia IDEAM: Progress in the Implementation of the National Framework for National Climate Services for Agriculture: - 14 Presentations in a "Mesas Técnicas Agroclimáticas"ument on information dissemination mechanisms - 1 Document on information dissemination mechanisms - 6 presentations in different events: Nurex; Enandes +, DAGRAN, CDGR, Council of Ministers, MinMInas. Peru SENAMHI: 1 meeting for discussing NMCS</p> | At least 80% of NFCS steps have received specific contributions from ENANDES activities. The outline and general structure of national Strategic Plans for NFCS implementation have been completed. |
| Outputs | No. of steps/activities completed in the GFCS protocol for NFCS. | 0 | To be measured at the end of project                                                                                                                                                                                                                                                                                                                                                                                                                                    | At least 80% of NFCS steps have received specific contributions from ENANDES activities. The outline and general structure of national Strategic Plans for NFCS implementation have been completed. |
| Outputs | No. of agreements and protocols established to support NFCS.     | 0 | To be measured at the end of project                                                                                                                                                                                                                                                                                                                                                                                                                                    | At least 80% of NFCS steps have received specific contributions from                                                                                                                                |

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|          |                                                                                   |                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                | ENANDES activities. The outline and general structure of national Strategic Plans for NFCS implementation have been completed.            |
| Outcomes | No. of community adaptation plans that integrate climate and weather information. | Isolated adaptation actions implemented in areas of the ENANDES region by previous initiatives. | To be measured at the end of project                                                                                                                                                                                                                                                                                                                                                                           | All local adaptation actions proposed in ENANDES have been implemented.                                                                   |
| Outcomes | No. of early warning systems in place.                                            | Very few of these activities are operationalized.                                               | Chile DMC: There is 1 National EWS that integrate all<br>Colombia IDEAM: 15 Community Early Warning Systems were strengthened. Through the participatory evaluation of the EWS, training in first aid and community emergency plan, simulation, provision of elements to communities to improve their response capacity and preparation of community emergency plans.<br>Peru SENAMHI: 2 local EWS in progress | Women and indigenous/peasant communities have had comparable participation and leadership in all adaptation activities.                   |
| Outcomes | Estimated socio-economic benefits of climate services and adaptation actions.     | 0                                                                                               | To be measured at the end of project                                                                                                                                                                                                                                                                                                                                                                           | Socio-economic benefits (SEB) of demonstration adaptation actions have been estimated, at least for one action in each demonstration area |
| Outputs  | No. of vulnerability assessments performed in demonstration adaptation region.    | Earlier studies in demonstration regions may have produced useful information on vulnerability. | Chile DMC: 5 in synergy with EUROCLIMA+ Project addressing citrus agroclimatic risk zone and avocado in the                                                                                                                                                                                                                                                                                                    | ALL demonstration adaptation areas have undergone vulnerability assessments.                                                              |

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|         |                                                                                                                                        |                                                                                                 | Aconcagua river basin. Colombia IDEAM: Not yet finalized Peru SENAMHI: 2 Vulnerability Assessments in the demonstration Areas (San Martin and Rimac)                                                                                                                                                                                                                                                                                                                                           |                                                                              |
| Outputs | No. of earlier vulnerability studies or publications reviewed.                                                                         | Earlier studies in demonstration regions may have produced useful information on vulnerability. | Chile DMC: 4 studies reviewed Colombia IDEAM: 2 Studies reviewed Peru SENAMHI: 2 studies reviewed                                                                                                                                                                                                                                                                                                                                                                                              | ALL demonstration adaptation areas have undergone vulnerability assessments. |
| Outputs | No. of vulnerability-reduction actions that resulted or emerged from these assessments.                                                | Earlier studies in demonstration regions may have produced useful information on vulnerability. | Chile DMC: 3 actions identified Colombia IDEAM: 8 possible measures to be implemented in pilot areas systematized in 1 document prepared on the monitoring, technical support, and evaluation conducted on the adaptation measures implemented within the framework of the ENANDES project. Peru SENAMHI: 4 Measures identified and proposed as enabling activities: MTA of San Martin; Risk Management RoundTable (MGR in Spanish) of Rimac and community driven EWSs in San Martin and Lima. | ALL demonstration adaptation areas have undergone vulnerability assessments. |
| Outputs | No. of vulnerability-reduction actions resulting from these assessments that represent contributions from local knowledge and expertis | Earlier studies in demonstration regions may have produced useful information on vulnerability. | Chile DMC: 3 actions identified Colombia IDEAM: 8 possible measures to be implemented in pilot areas sistematized in 1 document prepared on the monitoring, technical support, and evaluation conducted on the                                                                                                                                                                                                                                                                                 | ALL demonstration adaptation areas have undergone vulnerability assessments. |

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|         |                                                                                                           |                                                                               | adaptation measures implemented within the framework of the ENANDES project.<br>Peru SENAMHI:<br>Not yet finalized                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                       |
| Outputs | No. of “field schools” conducted in demonstration adaptation sites.                                       | No field schools or Roving Seminars have taken place yet in adaptation sites. | Chile DMC: 1 field school<br>Colombia IDEAM: 4 field schools organized during 4 meetings<br>Peru SENAMHI:<br>Not yet finalized                                                                                                                                                                                                                           | At least one field school per project year, targeting local authorities and leaders of community organizations, including significant participation by women and members of different communities.                                                    |
| Outputs | No. of “Roving Seminars” conducted in demonstration adaptation sites.                                     | No field schools or Roving Seminars have taken place yet in adaptation sites. | Chile DMC: Not yet<br>Colombia IDEAM: 1 Field School across 4 Workshops<br>Peru SENAMHI: Not yet finalized"                                                                                                                                                                                                                                              | A document has been produced reviewing good practices and lessons learned during ENANDES about how to foster effective engagement of vulnerable groups (e.g., rural communities, women’s groups) in co-designing local climate adaptation activities. |
| Outputs | No. of participants attending field schools and Roving Seminars, broken down by gender, age or ethnicity. | No field schools or Roving Seminars have taken place yet in adaptation sites. | YEAR 2: Chile DMC: Not yet measurable<br>Colombia IDEAM: 150 participants (75 men and 75 women), 20 young people (8 men and 12 women), 25 elderly people (13 men and 12 women) and 60 indigenous people (28 men and 32 women).<br>Peru SENAMHI: Not yet measurable<br>YEAR 3: Colombia IDEAM: 1 Field School (3 sessions)<br>Total: 148 participants (82 | A document has been produced reviewing good practices and lessons learned during ENANDES about how to foster effective engagement of vulnerable groups (e.g., rural communities, women’s groups) in co-designing local climate adaptation activities. |

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|         |                                                                              |                                  | female, 66 male), 40 Indigenous: (16 female, 24 male), 19 Young Population (14-24 years): (13 female, 6 male), 47 Vulnerable groups (people with disabilities, children, the elderly, pregnant women): (24 female, 23 male). Peru SENAMHI: 563 participants from local entities (representatives of agricultural producers, indigenous and peasant communities, institutions) strengthened in the use of agro-climatic information through workshops.  |                                                                                                                                                                                                                                                       |
| Outputs | Metrics of learning and appropriation for field schools and Roving Seminars. | No methodology available/applied | Chile DMC: Not yet elaborated Colombia IDEAM: 1 Proposal document outlining theoretical and practical activities for productive systems to be developed in the ENANDES Field Schools; supporting documents for conducted Field Schools (Agenda, meeting minutes, invitations, and records); 1 Report on activities carried out with educational centers regarding the application and use of ENANDES climate services. Peru SENAMHI: Not yet finalized | A document has been produced reviewing good practices and lessons learned during ENANDES about how to foster effective engagement of vulnerable groups (e.g., rural communities, women's groups) in co-designing local climate adaptation activities. |
| Outputs | No. of women trained in accessing and interpreting information               | No training carried out          | YEAR 2: Chile DMC: Not yet measurable Colombia IDEAM:                                                                                                                                                                                                                                                                                                                                                                                                  | A document has been produced reviewing good practices and lessons                                                                                                                                                                                     |

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|         | produced by ENANDES.                                                                                                                                                                                                                                                             |                                     | 75 Peru SENAMHI: Not yet measurable<br>YEAR 3: Colombia IDEAM: 82 Peru SENAMHI: 177                                                                                                                                                                                                                                                                                                                                                                         | learned during ENANDES about how to foster effective engagement of vulnerable groups (e.g., rural communities, women's groups) in co-designing local climate adaptation activities.                                                                   |
| Outputs | No. of members from peasant/indigenous communities trained in accessing and interpreting information produced by ENANDES.                                                                                                                                                        | No training carried out             | YEAR 2: Chile DMC: Not yet measurable<br>Colombia IDEAM: 150 Peru SENAMHI: Not yet measurable<br>YEAR 3: Colombia IDEAM: 148 Peru SENAMHI: 35                                                                                                                                                                                                                                                                                                               | A document has been produced reviewing good practices and lessons learned during ENANDES about how to foster effective engagement of vulnerable groups (e.g., rural communities, women's groups) in co-designing local climate adaptation activities. |
| Outputs | No. of previously published studies reviewed to identify successful case studies and good practices for stakeholders' engagement (including gender and ethnicity dimensions); review is aimed at identifying conditions for effective participation prior to ENANDES activities. | No review/systematization available | Chile DMC: 3 Documents: Climate Change Adaptation Practices and Adaptation Perception and Practices by the Centre for Climate and Resilience (CR2), and the Strategic Plan for Water Management in the Aconcagua Basin (section Water Governance at the Basin level) of Ministry of Public<br>Colombia IDEAM: 30 documents were reviewed<br>Peru SENAMHI: 2 Reports on Lessons Learned on Climate Services implementation have been reviewed (Climandes and | A document has been produced reviewing good practices and lessons learned during ENANDES about how to foster effective engagement of vulnerable groups (e.g., rural communities, women's groups) in co-designing local climate adaptation activities. |

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|         |                                                                                                                                                                                                                                                                                            |                                                            | Pachayatiña/Pachayachay Projects                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                       |
| Outputs | Has a document been produced reviewing good practices and lessons learned during ENANDES about how to foster effective engagement of vulnerable groups (e.g., peasant and indigenous communities, women's groups) in co-designing local climate adaptation plans and activities? (Yes/No). | No review/systematization available                        | Chile DMC: Not yet<br>Colombia IDEAM: 4 Documents: - Proposal document outlining the methodological approach for systematizing lessons learned from the ENANDES project. - Document detailing progress in systematizing lessons learned from the ENANDES project process. - Monitoring document on progress and gender roles within the project, aligned with national, regional instruments, and the Environmental and Social Policy of the Adaptation Fund. - Participatory evaluation report with a gender perspective to identify dissemination channels for climate services. Peru SENAMHI: Not yet elaborated, planned for 2024 | A document has been produced reviewing good practices and lessons learned during ENANDES about how to foster effective engagement of vulnerable groups (e.g., rural communities, women's groups) in co-designing local climate adaptation activities. |
| Outputs | Project Inception Workshops (PIWs) conducted in all demonstration sites (Yes/No).                                                                                                                                                                                                          | No local Project Inception Workshops have taken place yet. | Chile DMC: 1, National Kick Off<br>Colombia IDEAM: 16 meetings for community information and engagement<br>Peru SENAMHI: 2 Information workshop in the demonstration areas                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ALL PIWs held.                                                                                                                                                                                                                                        |
| Outputs | No. of stakeholders/partners attending PIW (broken down by gender, age,                                                                                                                                                                                                                    | No local Project Inception Workshops have taken place yet. | Chile DMC: 57 (27 female, 28 male)<br>Colombia IDEAM: 246 people participated (123                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ALL PIWs held.                                                                                                                                                                                                                                        |

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|         | ethnicity).                                                                                                                                                                                                                     |                                                            | men and 123 women), 15 young people (4 men and 11 women), 37 elderly people (16 men and 21 women) and 57 Indigenous people (33 men and 24 women) Peru SENAMHI: 91 people participated in the 2 kick off events at local level                                                         |                                             |
| Outputs | Reports from PIWs prepared and disseminated (Yes/No).                                                                                                                                                                           | No local Project Inception Workshops have taken place yet. | Chile DMC: Yes<br>Colombia IDEAM: Yes, plus 23 agreements signed with communities in pilot areas Peru<br>SENAMHI: Yes                                                                                                                                                                 | All PIW reports completed and disseminated. |
| Outputs | No. of meetings held for consultations with the rural communities which will be involved in co-designing and implementing local adaptation activities.                                                                          | No meeting agenda in place                                 | 9                                                                                                                                                                                                                                                                                     | All PIW reports completed and disseminated. |
| Outputs | No. of meetings held for consultations with women groups which will be involved in co-designing and implementing local adaptation activities.                                                                                   | No meeting agenda in place                                 | Chile DMC: Not yet<br>Colombia IDEAM: 11 Meetings Peru<br>SENAMHI: Yes                                                                                                                                                                                                                | All PIW reports completed and disseminated. |
| Outputs | No. of meetings with execution partners and local stakeholders (including peasant and indigenous communities & women's groups) to co-design adaptation activities in each demonstration area (broken down by gender/ethnicity). | No meeting agenda in place                                 | Chile DMC: Not yet<br>Colombia IDEAM: 11 meetings with the participation of 165 people in total (81 men and 84 women), out of which 38 Indigenous people (21 men and 17 women). Peru<br>SENAMHI: 4 Workshops to build the roadmap to use the climate information for adaptation plans | All PIW reports completed and disseminated. |
| Outputs | No. of local adaptation activities                                                                                                                                                                                              | No adaptation plans/strategy in                            | Chile DMC: Not yet<br>Colombia IDEAM:                                                                                                                                                                                                                                                 | All local adaptation activities planned for |

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|         | implemented in each demonstration site.                                                                                                                                        | place                                 | 109 adaptation measures were implemented at community level<br>Peru SENAMHI: Set up of the 2 Technical Agroclimatic Roundtable in San Martin and of the Risk Management Roundtable in Rimac. Such platforms need to be endorsed by local authorities in order to produce proposals for adaptation | each demonstration site have been implemented.                                             |
| Outputs | No. of local adaptation activities that specifically address possible gender-specific differences in access, comprehension and use of ENANDES climate information (not Chile). | No adaptation plans/strategy in place | Chile DMC: Not yet<br>Colombia IDEAM: 44 adaptation measures are led by women. Peru SENAMHI: Not yet                                                                                                                                                                                              | All local adaptation activities planned for each demonstration site have been implemented. |
| Outputs | No. of stakeholders who are engaged in demonstration adaptation activities in any way (numbers broken down by gender, age, ethnicity and vulnerability).                       | No adaptation plans/strategy in place | To be measured since PP3                                                                                                                                                                                                                                                                          | All local adaptation activities planned for each demonstration site have been implemented. |
| Outputs | Percentage of tasks and activities assigned and implemented in collaboration with local communities.                                                                           | No adaptation plans/strategy in place | Chile DMC: Participatory Agroclimatic Roundtables was launched and started working during YEAR 3. Colombia IDEAM: 23 Agreements signed with local communities in order to commit them to 16 concrete activities Peru SENAMHI: Not yet                                                             | All local adaptation activities planned for each demonstration site have been implemented. |
| Outputs | N° of communities                                                                                                                                                              | No adaptation plans/strategy in place | Chile DMC: Not yet assessed Colombia                                                                                                                                                                                                                                                              | All local adaptation activities planned for                                                |

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|         | contributing with their local or traditional knowledge to the adaptation planning processes.                           | place                                              | IDEAM: 19 Communities: (6 indigenous reservations, 5 peasant associations, 8 Community Action Boards). Peru SENAMHI: Note yet assessed                                                                                                                                                                                                                                                                                                                                               | each demonstration site have been implemented.                                             |
| Outputs | N&#176; of good practices in climate change adaptation implemented by women and considered for local adaptation plans. | No adaptation plans/strategy in place              | Chile DMC: Not yet Colombia IDEAM: 20 adaptation measures were implemented with women heads of household. During YEAR 3 monitoring and evaluation of such measures have been carried out. Peru SENAMHI: Note yet                                                                                                                                                                                                                                                                     | All local adaptation activities planned for each demonstration site have been implemented. |
| Outputs | N&#176; of technical working groups on climate and agriculture that involve participation of indigenous peoples.       | No adaptation plans/strategy in place              | YEAR 2: Chile DMC: Not yet Colombia IDEAM: 4 Community Agro-climatic Roundtables were held in each sub-basin, in thirteen (13) meeting spaces with the participation of indigenous people. Peru SENAMHI: Note yet YEAR 3: Colombia IDEAM: 3 Community Agro-climatic Roundtables were held in each sub-basin, in thirteen (9) meeting Peru SENAMHI: 2 working groups have been consolidated: Agroclimatic Roundtable (in San Martin) and Climatic Risk Management Roundtable in Rimac | All local adaptation activities planned for each demonstration site have been implemented. |
| Outputs | No. of early warning systems (EWSs) implemented in demonstration adaptation areas (Note: Peru does not                 | No operational EWS in place in demonstration areas | Chile DMC: not applicable since EWS is at National level Colombia IDEAM: 15 Community EWS                                                                                                                                                                                                                                                                                                                                                                                            | At least one EWS implemented per country that intends to implement them (except Peru).     |

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|         | seek to reach full implementation of an EWS; this country will develop an advanced prototype).                                                                                                                               |                                                    | Early Warning Systems were strengthened. Through the participatory evaluation of the EWSs, training in first aid and community emergency plans, drills, provision of elements to the communities to improve their response capacity and development of community emergency plans. Peru SENAMHI:2 Community-based EWS proposals for the two intervention zones (Huallaga and Rimac sub-basins) |                                                                                                                                   |
| Outputs | No. of alerts/warnings issued by each EWS. Broken down by month, year.                                                                                                                                                       | No operational EWS in place in demonstration areas | To be measured since PP3                                                                                                                                                                                                                                                                                                                                                                      | At least one EWS implemented per country that intends to implement them (except Peru).                                            |
| Outputs | Performance statistics for each EWS (hits, misses, false alarms in particular).                                                                                                                                              | No operational EWS in place in demonstration areas | To be measured since PP3                                                                                                                                                                                                                                                                                                                                                                      | At least one EWS implemented per country that intends to implement them (except Peru).                                            |
| Outputs | No. of stakeholders who (i) have heard about the existence of EWSs in their demonstration sites, or (ii) have received alerts or information from those EWSs (Numbers broken down by gender, age and ethnicity) (Not Chile). | No operational EWS in place in demonstration areas | Chile DMC: Not yet assessed<br>Colombia IDEAM: The Community EWS of 15 groups were strengthened with training in first aid, community emergency plan, simulation. 356 people participated (174 men and 174 women); 24 were young people (21 men and 23 women); 56 were elderly people (31 men and 25 women); 139 were indigenous (84 men and 55 women).<br>Peru SENAMHI:                      | At least 50% of stakeholders and 75% of institutions have taken any kind of action in response to a warning received from an EWS. |

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|         |                                                                                                           |                                                    | <p>Not yet assessed</p> <p>YEAR 3: Colombia</p> <p>IDEAM: 15</p> <p>Community Early Warning Systems were strengthened through training sessions with pedagogical tools adapted to the community and institutional environment based on the IAP methodology (Investigation - Action - Participation). Community prior knowledge on Initial Response and Community Response to threatening phenomena was shared and applied. Total: 78 (43 female, 35 male). 25 Indigenous: (14 female, 11 male); 5 Young Population (14-24 years): (5 female,) 23 Vulnerable groups (people with disabilities, children, the elderly, pregnant women): (10 female, 13 male)</p> |                                                                                                                                   |
| Outputs | No. of stakeholders who expressed favorable opinion about the info provided by the EWS.                   | No operational EWS in place in demonstration areas | To be measured at end of project                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | At least 50% of stakeholders and 75% of institutions have taken any kind of action in response to a warning received from an EWS. |
| Outputs | No. of stakeholders and institutions who have taken any kind of action in response to a warning received. | No operational EWS in place in demonstration areas | Chile DMC: 1 the Servicio Nacional de Prevención y Respuesta ante Desastres, SENAPRED (formerly known as Oficina Nacional de                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | At least 50% of stakeholders and 75% of institutions have taken any kind of action in response to a warning received from an EWS. |

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|          |                                                                                               |                                                                                                                     | Emergencia del Ministerio del Interior y Seguridad Pública – ONEMI)<br>Colombia IDEAM: Not yet assessed<br>Peru SENAMHI: Not yet assessed                                                                                                                                                               |                                                                                                                                   |
| Outputs  | Magnitude of losses reduced through provision of climate services and information.            | No operational EWS in place in demonstration areas                                                                  | To be measured at end of project                                                                                                                                                                                                                                                                        | At least 50% of stakeholders and 75% of institutions have taken any kind of action in response to a warning received from an EWS. |
| Outputs  | No. of SEB studies conducted.                                                                 | No SEB studies in adaptation sites have taken place yet.                                                            | To be measured at end of project                                                                                                                                                                                                                                                                        | At least ONE SEB per demonstration site.                                                                                          |
| Outputs  | No. of reports produced with SEB results.                                                     | No SEB studies in adaptation sites have taken place yet.                                                            | To be measured at end of project                                                                                                                                                                                                                                                                        | At least ONE SEB report produced per demonstration site.                                                                          |
| Outputs  | No. of general audience communications about SEB progress and results (not Chile).            | No SEB studies in adaptation sites have taken place yet.                                                            | To be measured at end of project                                                                                                                                                                                                                                                                        | 6                                                                                                                                 |
| Outputs  | No. of tracking activities performed (surveys, questionnaires, focus groups).                 | No tracking efforts have taken place yet.                                                                           | Peru SENAMHI: 2 documents: (i) baseline and a matrix of indicators for the project with updated execution progress up to January 2024; ii) a monitoring and follow-up report for the project.                                                                                                           | Tracking activities and analyses of results performed at least twice per project year.                                            |
| Outcomes | No. of national weather stations for which data are freely shared among ENANDES participants. | Limited regional exchange of climate data exists, limit interoperability of regional databases needs to be updated. | Chile DMC: 72 shared with WIS Argentina; DMC stations are available for everyone online at <a href="http://www.meteochile.gob.cl">www.meteochile.gob.cl</a> )<br>Colombia IDEAM: 26 stations (2 agrotechnological and 22 climatic stations) are accessible and share information with CIIFEN that makes | All active stations are shared                                                                                                    |

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|          |                                                               |                                                                                        | <p>them available to the 6 countries included in its mandate as Regional Climate Center. SENAMHI Peru: data sharing not yet addressed CIIFEN: as Regional Climate Center for the Western South America has access to the stations of 6 countries (Ecuador, Colombia, Peru, Chile, Bolivia and Venezuela). The information provided by the share stations are accessible for any regional monitoring/modelling/processing tool and also to all the associated national hydro-met services. For this reason, we may consider that Peru is sharing at least 46 stations either for temperature or precipitation datas.</p> |                                                                                          |
| Outcomes | No. of meetings held by the active regional technical groups  | Regional technical groups are not active in the region.                                | <p>CIIFEN: Working Group of RA III are active and have a new Working Plan. 1 in-person meeting with the Working Group on Hydrological and Water Resources was held in Bogota-Colombia on December 2022 1. Meeting of Working Group on Infrastructure and Technological Development, Lima november 2023</p>                                                                                                                                                                                                                                                                                                              | One meeting per project year has been convened for each Regional Working Training Group. |
| Outcomes | No. of training activities implemented by the ENANDES Project | Human capacities of the NMHSs are insufficient to support operational climate services | During Year 2 ENANDES supported the realization of 7 Technical Trainings:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Five training activities completed and evaluated during ENANDES implementation.          |

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|  |  | production. | <p>- 3 workshops (Colombia, Peru, Chile) on data homogenization and crop calendar conducted by José Guijarro, Ana Boque and Jon Olana from the Universitat Rovira i Virgili, Spain. - 1 training on S2S prediction for precipitation (in progress) conducted by IRI - 1 webinar on Vulnerability 4 hours June 2nd, 2022 80 participants: 56 women and 24 men, activity coordinated by WMO and RTC Lima. - 1 exchange Workshop on methodologies for the analysis of socioeconomic benefits of climate services, Cartagena - Colombia, July 18-19, 2022; hybrid workshop: 17 people in Cartagena (9 men and 8 women) and 9 people connected via Zoom (5 women and 4 men). - 1 workshop on "Homogenised data management" "Gestión de datos homogenizations", 7 hours, Guayaquil - Ecuador, November 28th, 2022, hybrid workshop: 10 participants (5 women and 5 men) organized by RCC-WSA and the WMO-WG on Technological Development. - 1 workshop on "Planning for</p> |  |
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|  |  |  | <p>climate change adaptation" Santiago de Chile, March 29-31, 2023; 25 participants: 14 women and 11 men. Activity evaluated according to the WMO standards. During YEAR 3, other 9 Technical Trainings have been organized: 1. Adaptation Planning, Santiago, March 2023. 2. Training in Communication and Language for SMHN Technicians, virtual, July 2023, supported by the Euroclima+ Droughts and Floods - Andes project. 3. Exchange of Agroclimatic Technical Tables and Community Agroclimatic Tables, virtual, June 2023 (theoretical), in-person, Colombia, September 2023. 4. Seasonal Forecast Course (CRC-SAS), virtual, June and October 2023. 5. VIC Model Course, virtual, October-November 2023. 6. Exchange in Hydrometeorological Data Management, in-person, Lima, November 2023. 7. XXII Regional Climate Outlook Forum for the WSA, Santiago, March 2023. 8. Training on S2S Prediction for Precipitation conducted by IRI, 2 remaining sessions, virtual. 9. Training Course for the</p> |  |
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|          |                                                                                               |                                                                                          | Energy Sector for ENANDES WMO, virtual, August 2023.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                            |
| Outcomes | No. of meetings held to coordinate activities between Regional Training Centers and NMHSs.    | Limited coordination among WMO regional Training centers and NMHSs.                      | ENANDES Team has established a permanent dialogue with RTC in Lima and coordinate information, awareness and training activities with its representatives. RTC was involved in the organization of: 1 hybrid meeting to agree on the priorities for training topics held November 28, 2023. 1 virtual meeting between CIIFEN technicians and WMO Training Activities Division to know the procedures to be used in order to evaluate the training sessions (March 24th, 2023). 1 virtual meeting between the Responsible of the RTC in Lima and ENANDES Focal Point in CIIFEN to agreed on the evaluation forms to be applied in the Workshop on Planning for Adaptation. Regular communication via e-mail or WhatsApp between the responsible of the RTC in Lima and ENANDES Focal Point in CIIFEN. | RTCs and ENANDES NMHSs have met virtually at least twice a year for coordination purposes. |
| Outcomes | No. of adaptation actions replicated outside demonstration areas in ENANDES countries, and in | Procedures defined to coordinate activities between regional training centers and NMHSs. | To be measured at the end of project                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | At least five adaptation actions replicated outside ENANDES demonstration areas.           |

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|         | neighboring countries.                                                                                                                                        |                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                 |
| Outputs | The synthesis of weather station assessments performed by each country has been completed and published by CIIFEN/RCC-WSA (Yes/No).                           | "Section on Observing networks, data and data management in the WMO CCSI identified the need for this output. All ENANDES NMHSs have expressed some dissatisfaction with their current climate data management system." | "The assessment on national observation networks has been performed by the countries, with gaps analysis focused on demonstration areas and the identification of possible solution to fill those gaps. The assessment is at 40%. Potential sources for the acquisition of information were identified: WIS (daily and monthly), GCOS CLIMAT (monthly), and the NMHS web services (SACLIM, ONSC).The global report has not been consolidated yet, nor published. It is planned for YEAR 3." | Synthesis of weather station assessments performed by each country completed and published by CIIFEN/RCC-WSA (Yes/No).          |
| Outputs | The synthesis of national plans for climate data management activities performed by each country has been completed and published by CIIFEN/RCC-WSA (Yes/No). | Few datasets from ENANDES region are registered in WMO Information System WIS.                                                                                                                                          | It was made a ""Report on the improvements in data management planned within the framework of the ENANDES project"" which is pending publication on the CRC-OSA website. Completed at 90%                                                                                                                                                                                                                                                                                                   | Synthesis of national plans for climate data management activities has been completed and published by CIIFEN/RCC-WSA (Yes/No). |
| Outputs | No. of global or regional gridded climate data sets compiled.                                                                                                 | Limited numbers of global or regional gridded datasets available to NMHSs.                                                                                                                                              | "YEAR 2: The 20 global model databases were selected in consensus with ENANDES NMHS. The selected databases are: ERA5 (prec, tmax, tmin, surface winds, soil moisture), CHIRPS (prec), GPCC (prec), NASA POWER (prec, tmax , tmin, relative humidity,                                                                                                                                                                                                                                       | At least 20 global or regional gridded data sets compiled for different climate variables.                                      |

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|         |                                                                                                               |                                                                                                                   | soil moisture), NOAA-CPC (prec, tmax, tmin), NCAR/UCAR (SST, surface wind, atm. pressure, geopotential height), PERSIANN-CCS-CDR (prec). There are 2/20 databases already compiled. YEAR 3: 7 Dataset already compiled and available"                                                                                                                                                            |                                                                                                                      |
| Outputs | No. of tools developed to facilitate access to seasonal forecast and climate projections from global centers. | No regional or widely shared tools exist to access seasonal forecast and climate projections from global centers. | "The contract for a consultancy to identified along with Western South American NMHS the most suitable climate projections models for the region has been signed. It was developed the terms of reference of the consultancy which will develop the analysis and the access tool. Along 2023 the consultancy achieved 60% of the progress."                                                      | Access tools have been developed to access seasonal forecast and climate projections from at least 5 global centers. |
| Outputs | No. of volunteer weather/water observers engaged.                                                             | Some volunteer observing networks exist.                                                                          | "YEAR 2: Negotiations are being made to enter the volunteers of the Rio Piedras network in the computer platform of the Volunclima network. Level of progress 10% YEAR 3: 15 volunteers from Fondo de Acción (Vichada and Meta) and 10 from Río Piedras (Cauca) have been enrolled in the Volunclima network. Approaches have been made to the Red Meteo Chile and 1 volunteer has been added to | At least 20 observers in each site where volunteers are sought.                                                      |

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|         |                                                                                                                            |                                                                                                                      | Volunclima."                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                            |
| Outputs | Workshop to review SEB approaches and reach consensus has been conducted (Yes/No).                                         | 0                                                                                                                    | "Yes, a workshop to review the SEB methodologies was conducted in Cartagena-Colombia on July 2022. On November 2023 during ENANDES Planning Workshop in Lima, a SEB Working Group was set up in order to exchange approaches, progresses and expectations on SEB Analysis. The University of Bern and WMO SEB focal points actively participated during the SEB sessions in order to better understand how to contribute with national roadmaps, maintaining the regional approach to the analysis." | A workshop has been conducted to review SEB approaches and reach consensus.                                                                |
| Outputs | Collation/publication of best practices on implementation of climate services in western South America completed (Yes/No). | No compilation of best practices on implementation of climate services in the region is available.                   | Some examples (health and agriculture) of practices in climate services was presented in XXII WCSACOF. Level of progress is 20%                                                                                                                                                                                                                                                                                                                                                                      | 1 Systematization of best Practices                                                                                                        |
| Outputs | No. of Regional Technical Working Groups (RTWGs) coordinated each year                                                     | Regional Technical Working Groups exist, but some have had limited recent activity or have been completely inactive. | For the period 2022-2023 three (3) meetings were carried out in the following groups: Infrastructure and Technological Development, Weather and Climate, and Hydrology and Water Resources.                                                                                                                                                                                                                                                                                                          | At least three Regional Technical Working Groups are functioning (meeting regularly, defining common activities) in western South America. |
| Outputs | No. of specific actions or activities completed by RTWGs.                                                                  | Regional Technical Working Groups exist, but some have had limited recent                                            | "During reporting period, two (2) actions have been taken to address                                                                                                                                                                                                                                                                                                                                                                                                                                 | At least three new actions have been addressed by each active RTWG.                                                                        |

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|         |                                                                                                              | activity or have been completely inactive. | RTWGs priorities: 1 Workshop on Homogenised (homogenizations) Data Management organized by RCC-WSA and the Working Group on Technological Development, hold in Guayaquil, November 28th, 2023. 2 Coordination efforts along 2022 between RCC-WSA and the Working Group on Climate and Weather and SISSA project to conduct a training course on climate prediction." |                                                                                                                                                                                                                                                                                                                          |
| Outputs | No. of ENANDES tools implemented and documented within a CST.                                                | An ENANDES CST does not exist.             | "The concept of the CST was presented at the face-to-face meeting of technical committee of ENANDES (Guayaquil-Ecuador, November 2022), feedback was also received: During 2023 the CST achieved 80% of progress and is foreseen to be completed and accessible by 2024."                                                                                            | "At least 80% of tools in CST have been coded according to the style guidelines provided. A tool in the CST should be available for at least 60% of products (diagnostics, forecasts) produced by ENANDES. No. of technical experts participating in development of CST tools (broken down by country, age and gender)." |
| Outputs | No. of technical experts participating in development of CST tools (broken down by country, age and gender). | An ENANDES CST does not exist.             | "The structure of CST was discussed within WMO involving senior scientific officers who are managing relevant projects such as a Pilot Project in Buthan that provided fundamental insight on the structure of a National CS Toolkit components During 2023 a total of 27                                                                                            | "At least 80% of tools in CST have been coded according to the style guidelines provided. A tool in the CST should be available for at least 60% of products (diagnostics, forecasts) produced by ENANDES. No. of technical experts participating in development of CST                                                  |

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|         |                                                                                             |                                                                                                         | experts have been consulted (13 men and 12 women) from the 6 countries under CRC-WSA mandate: Venezuela (2) , Colombia (2), Ecuador (8), Peru (2), Chile (10) and Bolivia (2)"                                                                                                                                                                                                                                                                                   | tools (broken down by country, age and gender)."                                                                    |
| Outputs | Has a workshop to reach consensus on training needs and priorities been convened? (Yes/No). | No ENANDES training efforts have taken place yet. Limited coordination exists among NMHSs and WMO RTCs. | Yes, Inception Workshop dedicated a specific Working Session with representatives of NMHSs capacity building and training departments. Inception Report updated and validated priority training topics needs. During the last face to face working session of ENANDES technical committee meeting in Guayaquil on December 2022, training priorities were discussed in order to generate a Capacity Building and Training Calendar to be implemented along 2023. | 1                                                                                                                   |
| Outputs | Has a summary report been produced from this workshop? (Yes/No).                            | No ENANDES training efforts have taken place yet. Limited coordination exists among NMHSs and WMO RTCs. | Yes, Inception Report detailed the work done by Working Group 4 on Training Needs Assessment and during the Event in Guayaquil on December 2022 a Capacity Building Gantt Chart was elaborated (see link in Library sheet)                                                                                                                                                                                                                                       | At least five coordination meetings between NMHSs and WMO Iberoamerican Regional Training Centers have taken place. |
| Outputs | No. of coordination meetings between NMHSs and WMO Iberoamerican                            | No ENANDES training efforts have taken place yet. Limited coordination                                  | YEAR 2: Regarding the 3 workshops on data homogenization and crop calendar                                                                                                                                                                                                                                                                                                                                                                                       | At least two in-person courses and three virtual courses on topics to be                                            |

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|  | Regional Training Centers. | exists among NMHSs and WMO RTCs. | <p>the global features are: 41 participants (19 women and 22 men), according to the following detail:</p> <ul style="list-style-type: none"> <li>- Bogota-Colombia, April 2022 16 participants: 5 women and 11 men</li> <li>- Lima-Peru, June 2022, 17 participants: 9 women and 8 men</li> <li>- Santiago-Chile, July 2022, 12 participants: 9 women and 3 men</li> </ul> <p>Seventeen (17) officers attended the Exchange Workshop on SEB methodologies in Cartagena-Colombia, (July 2022): 8 women and 9 men" YEAR 3: 4 Workshops with the following details: - Workshop on Planning for Climate Change Adaptation. Santiago, Chile, March 2023. 25 participants: 14 women and 11 men.</p> <ul style="list-style-type: none"> <li>- Exchange of Agroclimatic Technical Tables and Community Agroclimatic Tables, in-person, Colombia, September 2023. 25 participants: 15 women and 10 men.</li> <li>- Exchange in Hydrometeorological Data Management, in-person, Lima, November 2023. 11 participants: 4 women and 7 men.</li> </ul> <ul style="list-style-type: none"> <li>- XXII Regional Climate Outlook Forum for the WSA. Santiago, March</li> </ul> | defined by consensus among ENANDES partners. |
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|         |                                                                             |                                                                                                         | 2023. 34 participants: 18 women and 16 men.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |     |
| Outputs | No. of people attending in-person training efforts (broken down by gender). | No ENANDES training efforts have taken place yet. Limited coordination exists among NMHSs and WMO RTCs. | <p>YEAR 2: 105 people attended virtual training workshops 69 women and 36 men: - 1 training on S2S prediction for precipitation. 16 participants: 8 women and 8 men - 1 webinar on vulnerability, June 2022, 80 participants: 56 women and 24 men - 1 exchange workshop on SEB methodologies. Cartagena-Colombia, July 2022, 9 virtual participants: 5 women and 4 men</p> <p>YEAR 3: 331 people among professionals and beneficiaries have been participating in different workshops:</p> <ul style="list-style-type: none"> <li>- Training in Communication and Language for SMHN Technicians, virtual, July 2023, supported by the Euroclima+ Droughts and Floods</li> <li>- Andes project. 32 participants: 22 women and 10 men.</li> <li>- Seasonal Forecast Course (CRC-SAS), virtual, June and October 2023. - VIC Model Course, virtual, October-November 2023: 29 participants - Training on S2S Prediction for Precipitation conducted by IRI, 2 remaining sessions, virtual. 12</li> </ul> | 100 |

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|         |                                                                                                                            |                                                                                                         | participants: 4 women and 8 men. - Training Course for the Energy Sector for ENANDES WMO, virtual, August 2023; 100 Participants from 18 countries - Exchange of Agroclimatic Technical Tables and Community Agroclimatic Tables, virtual, June - September 2023: 158 participants |                                                                                                           |
| Outputs | Has a consultant been identified and tasked with formal assessment of training activities? (Yes/No).                       | No ENANDES training efforts have taken place yet. Limited coordination exists among NMHSs and WMO RTCs. | Not yet.                                                                                                                                                                                                                                                                           | All ENANDES training efforts have been formally assessed using accepted procedures and metrics.           |
| Outputs | Proportion of training efforts that have been evaluated using accepted procedures and metrics.                             | No ENANDES training efforts have taken place yet. Limited coordination exists among NMHSs and WMO RTCs. | To be measured since PPR3                                                                                                                                                                                                                                                          | Results from assessment of training efforts provided to Project Manager and National Steering Committees. |
| Outputs | No. of training efforts developed by ENANDES that have been used by institutions outside the project (e.g., by a WMO RTC). | No ENANDES training efforts have taken place yet. Limited coordination exists among NMHSs and WMO RTCs. | To be measured since PPR4                                                                                                                                                                                                                                                          | 5                                                                                                         |

## Comments

Even if the project faced an initial delay due to COVID-19 and to related administrative constraints at country level, by the third year of implementation the EEs achieved a relevant level of progress on indicators, in some case significantly overtaking the expected target values.

## Lessons Learned

### Implementation and Adaptive Management

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| Describe any changes undertaken to improve results on the ground or any changes made to project outputs | Challenges & Opportunities | No relevant changes have been made to project design, but in some cases, it was for instance, due to the lack of engagement of the National Authority on Water (D the hydrometeorological aspects than in the hydrological issues at the pilot region equipment for improving the observation network, led to focus and invest in field to duplicate effort on Agro-ecological zoning of pilot areas, already finalized by s focusing on the characterization and estimation of agroclimatic risk in prioritized |
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| (i.e. changes to project design)                                                                                                                                                                                                                                                                                                                                                                      |                            | during phase 3 and 4. The bidding process is time consuming and with no guarantee to spend the budget during 2023 within the expected time frame. Colombia: The purchase of the VxBlock converged system was planned in the work plan and since Output 1.3. Hardware equipment could not be made due to limited resources, and Ideam had a new plan. In this case, the purchase of one (1) data rescue scanner was made, which started the Numerical Weather and Climate Modeling Group. Due to Ideam's policies related to the environment, it was not possible to maintain the ENANDES website, which compiles the most relevant information in technical and storage conditions to maintain this space. Additionally, the Ideam website was launched in September 2023, generating some turnover in the institution and new content to define more specific and detailed outcomes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Have the environmental and social safeguard measures that were taken been effective in avoiding unwanted negative impacts?                                                                                                                                                                                                                                                                            | Opportunities              | ESP related risks have been monitored and kept under control. No negative impacts were identified in the second half of 2022, and fieldwork activities of the project started and progressed. Chile: The hydrological work has been resumed with DGA during the second half of 2022. Visits to adaptation measures, it was necessary to conduct work sessions to carry out the implementation. Some of these activities were carried out in coordination with the National Institute of Disaster Risk (INIDER), the activation of radiophones and the second phase of training for the response entities were conducted. This was within the framework of strengthening the institutional capacity. In coordination with local partners such as the "Acueducto de Popayán" and the "Comité de Gestión de Riesgo de Agua Potable", forest nurseries. Activities included identification, seed collection, and planting of native species. Additional activities arose according to the needs in these adaptation measures. Perceived environmental or social impacts were generated in the proposed and developed activities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| How have gender considerations been taken into consideration during the reporting period? What have been the lessons learned as a consequence of inclusion of such considerations on project performance or impacts? List lessons learned specific to gender, detailing measures and project/programme-specific indicators highlighting the role of women as key actors in climate change adaptation. | Challenges & Opportunities | Reporting period still faced constraints during the first few months in moving to fieldwork, but once they were in place so field activities and beneficiaries engagement became a priority. A key challenge was the case of Colombia for instance the participation of most vulnerable groups, such as indigenous and peasant communities, socialization meetings, the SWOT analysis and strengthening of the community engagement. The project's vulnerability to climate variability and change; participation as beneficiaries in the project. A methodology was developed for specific workshops to identify the perception of the community on gender roles, vulnerability and adaptation. Conclusions (C) and Lessons Learned (La) on gender roles, vulnerability and adaptation. Colombia systematized lessons learned so far into a document <a href="https://wmmom.com/4BDF-452C-9E6B-740E47A92CB6%7D&amp;file=1.%20Sistematizaci%C3%B3n%20lecciones%20aprendidas%20del%20proyecto%20ENANDES%20LA1">https://wmmom.com/4BDF-452C-9E6B-740E47A92CB6%7D&amp;file=1.%20Sistematizaci%C3%B3n%20lecciones%20aprendidas%20del%20proyecto%20ENANDES%20LA1</a> - Tendency to present families where the man assumes all the household roles, which is socially accepted both at the indigenous and peasant level. C1- In the pilot area, the promotion of female leadership at the level of political spaces, in community and social production spaces. C2- The elderly in the different events promoted by the project have influenced over and over again the household and at community level between men and women, tend to be increasing the participation of indigenous and peasant peoples. C3 - An optimal women's participation. A total of 48%, i.e. 48%. These results support the capacity of women to show more and more leadership. In the pilot area of the ENANDES project, it was identified that in 7 organizations, women (i.e. 35%), the remaining 16 actors, equivalent to 52% of the organizations, etc., and that the women in the pilot area of the ENANDES project could be a key actor. Although there is a tendency for both men and women to share their roles within the household, the perspective on hazards, risks and climate impacts is very important, evidencing an increasing role of women in organizational and training processes for socio-cultural, environmental and economic activities. Promoters, with a gender equity approach to support the implementation and monitoring of the project, necessary to generate greater responsibility and commitment from men to help as co-promoters in their working day and in a more equitable and fair way to prepare the family as a whole. The project, according to the community, made it easier for families to learn to share and value the role of women. It is considered that climate change could accelerate the process towards gender equity, reducing the inequality gap, so it is important to design a strategy for gender awareness and co-responsibility towards balanced roles. C9 - It should be noted that many women have become guardians of the territory, sovereignty and security and the reduction of agro-climatic risks such as impacts on food security. Colombian and indigenous women are incorporated in the responses to climate change, and they respect and always participate in each of the different organizational, political, social and cultural spaces. Cosmovision to be transmitted to children and can generate from there the awareness and responsibility. |

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|                                                                                                                                      |                            | <p>of a changing climate. LA3 - Indicators that can be considered to identify the part</p> <p>Number of adult and young women in positions of authority - indigenous and peas</p> <p>execution of environmental, economic, cultural programs and projects. C11 - The</p> <p>resguardos of the ENANDES pilot area, the results in terms of female community</p> <p>Quintana; Governor in the indigenous resguardo of Poblazón; and for the first tim</p> <p>realization of Inceptions and workshops at community level permitted to assess th</p> <p>Rímac, there is a greater participation of women. This difference is most probably</p> <p>workshop locations that is more in San Martin than in RImac. YEAR 3: Colombi</p> <p>considerations into its community activities in the Molino, Pisojé, Vinagre, Palaco</p> <p>and boys through various meetings and the monitoring of adaptation measures (A</p> <p>communities as a collaboration between IDEAM's climate services - ENANDES</p> <p>of climate change and variability as a phenomenon that affects both genders. This</p> <p>perspective, thus promoting social strengthening and generating socio-economic r</p> <p>conditions, adaptation to climate change, and environmental sustainability, under</p> <p>including pedagogical, community, and family meeting spaces, have highlighted</p> <p>equity as a means to reduce the gap between women and men. During the docum</p> <p>noteworthy that ten (10) territorial organizations had ten (10) indigenous and peas</p> <p>environmental, political, and economic order. Besides active participation of 48%</p> <p>the caretakers of seeds. With their effort and dedication, they manage to preserve</p> <p>Women are a fundamental part of the conservation and protection of water source</p> <p>have become water stewards. Peru: SENAMHI has taken into account the orienta</p> <p>account the participation of users and information providers, through participatory</p> <p>institutions or organizations and producers. Key leaders have been identified duri</p> <p>(i)The planning of activities with a logical sequence has allowed the design and p</p> <p>determine the place where any event will be held (work meetings and/or worksho</p> <p>the effective involvement of political authorities at all decision-making levels, inc</p> <p>organizations. (iv) It is necessary to continue strengthening capacities at the regio</p> <p>have been initiated through stakeholder engagement processes and review of relev</p> <p>Colombia and Peru: 1) Women play a central role as agents of adaptation, particu</p> <p>resources, and active contributors to local decision-making processes. 2) Increasin</p> <p>women in formal leadership roles, and new female indigenous authorities appoint</p> <p>workload and responsibilities at household and community levels. Adaptation me</p> <p>women's leadership and voice. 4) Gender responsive approach had a positive imp</p> <p>of climate services, and strengthening community ownership of adaptation measu</p> |
| <p>Were there any delays in implementation? If so, include any causes of delays. What measures have been taken to reduce delays?</p> | Challenges                 | <p>As mentioned above, all national partners and their workplans were affected by re</p> <p>turn overs add some delay on financial execution during second year. Also, institu</p> <p>Colombia. The possible consequences have been mitigated by rescheduling of fie</p> <p>monitoring. YEAR 3: Chile: New alliances with strategic partners in the pilot area</p> <p>Electricas A.G.). Colombia: The disbursement of funds in 2023 was made effectiv</p> <p>at Ideam have specific steps that must be followed, and progress was delayed unt</p> <p>authorized the advancement of pre-contractual processes starting in February. Per</p> <p>climatic events such as YAKU and the Global El Niño and Coastal El Niño Phen</p> <p>information gathering. - High turnover of officials and/or specialists in the sector.</p> <p>impacts: - Rescheduling of field work. - Report to the new authorities. - Technica</p> <p>were delayed because certain calls were considered void due to a lack of applican</p> <p>calls was intensified.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <p>What implementation issues/lessons, either positive or negative, affected progress?</p>                                           | Challenges & Opportunities | <p>The consequences of COVID19 pandemic and associated restrictions still generat</p> <p>applied very limiting protocols. During the second year all of Executing Entities r</p> <p>Implementing Arrangement signed with WMO. The financial execution was then</p> <p>specific issues related to de differences between national administrative and finan</p> <p>tranche of funding. Contract of services/persons and purchases can only be made</p> <p>led to accounting the commitment of most of DMC's share, but quite limited disb</p> <p>during Presidential Election has shifted significantly finalization of contracts with</p> <p>less impact on the workplan. The law says that public institutions are not allowed</p> <p>finalization of the process. The election activities went from 13 March to 29 of M</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

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|  |  | <p>January 2022. The turnover that affected institutional authorities and executives l started slightly later than expected. At the same time the standard due date of con engagement. This was mainly solved hiring key project consultants directly by W <a href="https://wmoomm.sharepoint.com/:w:/r/sites/XB_Projects/_layouts/15/Doc.aspx?s740E47A92CB6%7D&amp;file=1.%20Sistematizaci%C3%B3n%20lecciones%20apre">https://wmoomm.sharepoint.com/:w:/r/sites/XB_Projects/_layouts/15/Doc.aspx?s740E47A92CB6%7D&amp;file=1.%20Sistematizaci%C3%B3n%20lecciones%20apre</a></p> <p>Peru: During the reporting period Peru faced the substitution of President of the R Colombia but with less impact because executive officers are more stable and per progress in execution by hiring administrative support, ii) weekly monitoring of a experience coordinating and leading MAPs. Direct work with users from the agric Río de las Piedras Foundation (a local ally) made possible the implementation act year 2023. Due to the current violence and security issues in the department of Ca ENANDES Experiences - Colombia 2023," it was necessary to modify the propos municipality of Popayán, with a visit to an educational institution in Totoró. This the territory, which we consider to be potentially hazardous. Peru: Constraints det of financial execution, (ii) Climatic events such as the YAKU, the Global El Niño SENAMHI and partner institutions such as CENEPRED and INDECI, delaying p officials, as well as constant changes at the Ministerial and political levels. All of technical activities of CENEPRED and INDECI related to field work for informa remote work. CIIFEN: (i) The implementation of technological platforms, such as experienced unexpected delays due to the unforeseen complexity of development to have more detailed prior planning and to have made a more precise plan when achievement of regional results partly depend on the collaboration of national par activities, such as those related to the regional drought monitor. On the other hand coordinated for consultations or progress presentations, such as surveys and meet on the availability of grid databases. (iii) Organizing in-person events together wi required by personnel from public institutions. It was learned that planning must l</p> |
|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Has the project already reached mid term or project completion?(yes/no).**

Yes

| Climate Resilience Measures                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>What have been the lessons learned, both positive and negative, in implementing climate adaptation measures that would be relevant to the design and implementation of future projects/programmes for enhanced resilience to climate change?</p> | <p>The Participatory Platforms, such as the Technical Agroclimatic Roundtables or the Energy Table, generated or scaled up in the framework of ENANDES, demonstrated their fundamental role in decision making processes when dealing with multi-stakeholders sectors. Such platforms, when properly articulated at the different scale (local to subnational to national levels) may make the difference and bring together the producers of relevant information, who can process it and finally who need to use it in order to guarantee livelihood systems and/or basic services provision. The project represents a multi-country scale up of a previous successful initiative called CLIMANDES funded by the Swiss International Cooperation. The same donor was capable to appreciate the potential of ENANDES and has already signed an agreement with WMO in order to involve 3 more countries (Argentina, Bolivia and Ecuador) almost achieving the full coverage of the Andean region. The project strategy may be adapted and replicated in any other eco-regional context where still the information on weather, water and</p> |

|                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                | climate is underused or not accessible.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| What is the potential for the climate resilience measures undertaken by the project/programme to be replicated and scaled up both within and outside the project area?                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Readiness Interventions (Applicable only to NIEs that received one or more readiness grants)</b>                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| What have been the lessons learned, both positive and negative, in accessing and implementing climate finance readiness support that would be relevant to the preparation, design and implementation of future concrete adaptation projects/programmes?                                                                                                        | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| How have the outputs (such as manuals, guidelines, procedures or the experience from providing peer support, etc) from employing readiness grants been used to inform institutional capacity needs, gender issues, and environmental and social aspects in developing and implementing concrete projects/programmes for enhanced resilience to climate change? | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Concrete Adaptation Interventions</b>                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| What have been the lessons learned, both positive and negative, in implementing concrete adaptation interventions that would be relevant to the design and implementation of future projects/programmes implementing concrete adaptation interventions?                                                                                                        | As explained in above and here below, the end users/beneficiaries engagement approach can be easily replicated regardless to geographic context. The Agroclimatic Roundtables have been implemented in other continents achieving the same level of efficiency and effectiveness when addressing impacts of climate change to rural communities and producers.                                                                                                                                                                                                                                                                                                                                                          |
| What is the potential for the concrete adaptation interventions undertaken by the project/programme to be replicated and scaled up both within and outside the project area?                                                                                                                                                                                   | ENANDES has already demonstrated the possibility of scaling up the intervention to 3 more countries, leveraging on the experience of promoting/participating to such a user's interface platforms at field level. Even more, the National Hydromet Services that have already gained experience on this participatory tool are already experimenting the use of it for different sectors and offering assistance to other countries in designing and carrying out participatory roundtables in their demonstration areas. Especially IDEAM, as a pioneer implementer of MTAs, is supporting Chile, Argentina and Ecuador in the framework of the ENANDES+ Project permitted by SDC's financial contribution to ENANDES. |
| <b>Knowledge Management</b>                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| How has existing information/data/knowledge been used to inform project development and implementation? What kinds of information/data/knowledge were used?                                                                                                                                                                                                    | Implementing and Executing Entities have performed an in-depth review of available literature on several topics related to projects technical areas and socio-economic interests. Such reviews have been systematized and recollected in specific documents accessible accessible through the links listed in the excel file attached in Supporting Documents, called "Library_Links to Documents".                                                                                                                                                                                                                                                                                                                     |

|                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Has the existing information/data/knowledge been made available to relevant stakeholder? If so, what channels of dissemination have been used?                                                                                               | The information generated is not yet fully accessible to stakeholder. It is still under internal review and used to move steps further in producing project outputs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Please list any knowledge products generated and include hyperlinks whenever possible (e.g. project videos, project stories, studies and technical reports, case studies, training manuals, handbooks, strategies and plans developed, etc.) | All ENANDES training efforts have been formally assessed using accepted procedures and metrics.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| If learning objectives have been established, have they been met? Please describe.                                                                                                                                                           | Capacity building and training activities have started this year and has planned several sessions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Describe any difficulties there have been in accessing or retrieving existing information (data or knowledge) that is relevant to the project. Please provide suggestions for improving access to the relevant data.                         | Project partners did not face any specific barriers in accessing to relevant information or literature. As already mentioned in Chile it has become difficult the engagement and exchange of information with the Water Authority (DGA). Nevertheless DMC has already elaborated a strategy to address water sector with a different focus.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Has the identification of learning objectives contributed to the outcomes of the project? In what ways have they contributed?                                                                                                                | N/A - to be filled at PPR 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Innovation</b>                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Describe any innovative practices or technologies that figured prominently in this project.                                                                                                                                                  | "Considering the global emergency generated by COVID19 pandemic and related mobility restrictions, the fast improvement of digital communication and progresses regarding online conference platforms have permitted to remotely kick off, coordinate meetings and finally manage project implementation. The creation of multi-stakeholders' participatory platform to bring together information providers and users to plan adaptation together can be considered an essential practice to support decision making processes related to several "glocal" issues, such as adaptation to climate change, community resilience building and DRR. During Year 3 the project intensified the activities of the multi-stakeholder's participatory platforms applied to agriculture production and to the energy sector. In Chile the debate on climate services applied to energy has risen a lot of interest and of opportunities to engage the academia and to promote applied research on new models and systems to produce energy co-generating other adaptation benefits, such as the reduction of evaporation from water reservoirs through the installation of floating solar panels. Even being a business-to-business strategy (at the moment), there is room to investigate the possibility to use the over production of energy to supply rural communities or basic facilities in the neighborhood." |
| <b>Complementarity/ Coherence with other climate finance sources</b>                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Has the project been scaled-up from any other climate finance? Or has the project build upon any other climate finance initiative?                                                                                                           | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

|                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>If you answered yes, kindly specify the name of the Fund/Organization.</p> | <p>During reporting period WMO negotiated a contribution from the Swiss Agency for Development and Cooperation (SDC) to scale up the project and enforcing a more regional approach. SDC finally signed a contribution agreement for 5,8 Millions CHF to fund the project "Building Regional Adaptive capacity and resilience to climate Variability and change in vulnerable sectors in the Andes" (ENANDES+) – allowing for the inclusion of Argentina, Bolivia and Ecuador to the three original ENANDES countries, and resulting in the involvement of all WMO regional institutions in South America, with the inclusion of the Regional Climate Centres for the South and West of South America, and the Regional Training Centres in Peru and Argentina. MeteoSwiss will also contribute to the project, mainly through knowledge and expertise sharing. The project has started in November 2022 and will finalize by end of October 2026, being implemented in one transnational and one national intervention area: the Pilcomayo River Basin which spans across Argentina and Bolivia, and the Upper Basin of the Pastaza River in Ecuador. Identified priority sectors include water management, agriculture and food security, and disaster risk reduction. More information on the official launch of the scale up available at <a href="https://public.wmo.int/en/media/news/scaling-climate-adaptation-and-resilience-andes">https://public.wmo.int/en/media/news/scaling-climate-adaptation-and-resilience-andes</a>.</p> |
|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Results Tracker

**Goal:** Assist developing-country Parties to the Kyoto Protocol and the Paris Agreement that are particularly vulnerable to the adverse effects of climate change in meeting the costs of concrete adaptation projects and programmes in order to implement climate-resilient measures.

**Impact:** Increased resiliency at the community, national, and regional levels to climate variability and change.

**Is this the mid-term or terminal project performance report?** Before Midterm

| Impact: Increased resiliency at the community, national, and regional levels to climate variability and change |                                               |       |                           |                          |
|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-------|---------------------------|--------------------------|
| Core Indicator: No. of beneficiaries                                                                           |                                               |       |                           |                          |
|                                                                                                                |                                               | Total | % of female beneficiaries | % of Youth beneficiaries |
| Baseline information                                                                                           | Direct beneficiaries supported by the project | 0     | 0                         | 0                        |
| Baseline information                                                                                           | Indirect beneficiaries supported by the       | 0     | 0                         | 0                        |

|                                  |                                                 |         |                    |                    |
|----------------------------------|-------------------------------------------------|---------|--------------------|--------------------|
|                                  | project                                         |         |                    |                    |
| Baseline information             | Total (direct + indirect beneficiaries)         | 0       | 0                  | 0                  |
| Target performance at completion | Direct beneficiaries supported by the project   | 136827  | 48.17              | 25.1               |
| Target performance at completion | Indirect beneficiaries supported by the project | 2749494 | 50.32              | 21.43              |
| Target performance at completion | Total (direct + indirect beneficiaries)         | 2886321 | 49.245000000000005 | 23.265             |
| Performance at mid-term          | Direct beneficiaries supported by the project   | 6390    | 51.13              | 51.3               |
| Performance at mid-term          | Indirect beneficiaries supported by the project | 173000  | 46.5               | 26.9               |
| Performance at mid-term          | Total (direct + indirect beneficiaries)         | 179390  | 48.815             | 39.099999999999994 |
| Performance at completion        | Direct beneficiaries supported by the project   |         |                    |                    |
| Performance at completion        | Indirect beneficiaries supported by the project |         |                    |                    |
| Performance at completion        | Total (direct + indirect beneficiaries)         | 0       | 0                  | 0                  |

## Outcome 1: Reduced exposure to climate-related hazards and threats

### Indicator 1: Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis

|                                  | Number of targeted stakeholders - Total | Number of targeted stakeholders - % of female targeted | Hazards information generated and disseminated | Overall effectiveness  |
|----------------------------------|-----------------------------------------|--------------------------------------------------------|------------------------------------------------|------------------------|
| Baseline information             | 0                                       | 0                                                      | Drought                                        | 1: Ineffective         |
| Target performance at completion | 10000                                   | 50                                                     | Drought                                        | 4: Effective           |
| Performance at mid-term          | 6390                                    | 46.5                                                   | Drought                                        | 2: Partially effective |
| Performance at completion        |                                         |                                                        |                                                |                        |

### Output 1.1 Risk and vulnerability assessments conducted and updated

Indicator 1.1: No. of projects/programmes that conduct and update risk and vulnerability assessments

|                                  | <b>No. of projects/programmes that conduct and update risk and vulnerability assessments</b> | <b>Sector</b> | <b>Scale</b> | <b>Status</b>                                              |
|----------------------------------|----------------------------------------------------------------------------------------------|---------------|--------------|------------------------------------------------------------|
| Baseline information             | 0                                                                                            | Agriculture   | Local        | 1: No plans conducted or updated                           |
| Baseline information             | 0                                                                                            | Other         | Local        | 1: No plans conducted or updated                           |
| Target performance at completion | 5                                                                                            | Agriculture   | Local        | 1: No plans conducted or updated                           |
| Target performance at completion | 1                                                                                            | Other         | Sub-National | 3: Risk and vulnerability assessments completed or updated |
| Performance at mid-term          | 6                                                                                            | Multi-sector  | Local        | 2: Undertaking or updating of assessments in progress      |
| Performance at completion        |                                                                                              |               |              |                                                            |

## **Output 1.2 Targeted population groups covered by adequate risk reduction systems**

Core Indicator 1.2: No. of Early Warning Systems

|                      | <b>No. of adopted Early Warning Systems</b> | <b>Category targeted</b>           | <b>Hazard</b>   | <b>Geographical coverage</b> | <b>Number of municipalities</b> |
|----------------------|---------------------------------------------|------------------------------------|-----------------|------------------------------|---------------------------------|
| Baseline information | 0                                           | 1: Risk knowledge                  | Drought         | Local                        | 0                               |
| Baseline information | 0                                           | 2: Monitoring and warning service  | Drought         | Local                        | 0                               |
| Baseline information | 0                                           | 3: Dissemination and communication | Drought         | Local                        | 0                               |
| Baseline information | 0                                           | 4: Response capability             | Drought         | Local                        | 0                               |
| Baseline information | 0                                           | 1: Risk knowledge                  | Inland flooding | Local                        | 0                               |
| Baseline information | 0                                           | 2: Monitoring and warning service  | Inland flooding | Local                        | 0                               |
| Baseline information | 0                                           | 3: Dissemination and communication | Inland flooding | Local                        | 0                               |
| Baseline             | 0                                           | 4: Response                        | Inland flooding | Local                        | 0                               |

|                                  |   |                                    |                 |       |    |
|----------------------------------|---|------------------------------------|-----------------|-------|----|
| information                      |   | capability                         |                 |       |    |
| Target performance at completion | 4 | 1: Risk knowledge                  | Drought         | Local | 21 |
| Target performance at completion | 4 | 2: Monitoring and warning service  | Drought         | Local | 21 |
| Target performance at completion | 4 | 3: Dissemination and communication | Drought         | Local | 21 |
| Target performance at completion | 4 | 4: Response capability             | Drought         | Local | 21 |
| Target performance at completion | 4 | 1: Risk knowledge                  | Inland flooding | Local | 21 |
| Target performance at completion | 4 | 2: Monitoring and warning service  | Inland flooding | Local | 21 |
| Target performance at completion | 4 | 3: Dissemination and communication | Inland flooding | Local | 21 |
| Target performance at completion | 4 | 4: Response capability             | Inland flooding | Local | 21 |
| Performance at mid-term          | 1 | 1: Risk knowledge                  | Drought         | Local | 1  |
| Performance at mid-term          | 1 | 1: Risk knowledge                  | Drought         | Local | 20 |
| Performance at mid-term          | 1 | 2: Monitoring and warning service  | Drought         | Local | 20 |
| Performance at mid-term          | 1 | 3: Dissemination and communication | Drought         | Local | 1  |
| Performance at mid-term          | 1 | 4: Response capability             | Drought         | Local | 1  |
| Performance at mid-term          | 1 | 1: Risk knowledge                  | Inland flooding | Local | 21 |
| Performance at mid-term          | 1 | 2: Monitoring and warning service  | Inland flooding | Local | 21 |
| Performance at mid-term          | 1 | 3: Dissemination and communication | Inland flooding | Local | 1  |
| Performance at mid-term          | 1 | 4: Response capability             | Inland flooding | Local | 1  |
| Performance at completion        |   |                                    |                 |       |    |

**Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses**

**Indicator 2: Capacity of staff to respond to, and mitigate impacts of, climate-related events from targeted institutions increased**

|                                  | Number of staff targeted - Total | Number of staff targeted - % of female targeted | Sector       | Capacity level     |
|----------------------------------|----------------------------------|-------------------------------------------------|--------------|--------------------|
| Baseline information             | 0                                | 0                                               | Multi-sector | 2: Low capacity    |
| Target performance at completion | 150                              | 50                                              | Multi-sector | 3: Medium capacity |
| Performance at mid-term          | 205                              | 73                                              | Multi-sector | 3: Medium capacity |
| Performance at completion        |                                  |                                                 |              |                    |

**Output 2.1 Strengthened capacity of national and sub-national centres and networks to respond rapidly to extreme weather events**

Indicator 2.1.1: No. of staff trained to respond to, and mitigate impacts of, climate-related events

|                                  | Total staff trained | % of female staff trained | Type   |
|----------------------------------|---------------------|---------------------------|--------|
| Baseline information             | 0                   | 0                         | Public |
| Target performance at completion | 150                 | 50                        | Public |
| Performance at mid-term          | 205                 | 73                        | Public |
| Performance at completion        |                     |                           |        |

Indicator 2.1.2: No. of targeted institutions with increased capacity to minimize exposure to climate variability risks

|                                  | Type   | Scale    | Sector       | Capacity Level     |
|----------------------------------|--------|----------|--------------|--------------------|
| Baseline information             | Public | Regional | Multi-sector | 2: Low capacity    |
| Target performance at completion | Public | National | Multi-sector | 3: Medium capacity |
| Performance at mid-term          | Public | Local    | Multi-sector | 3: Medium capacity |
| Performance at completion        |        |          |              |                    |

**Output 2.2. Increased readiness and capacity of national and sub-national entities to directly access and program adaptation finance**

Indicator 2.2.1: No. of targeted institutions benefitting from the direct access and enhanced direct access modality

|                                  | Number of beneficiaries | Scale | Sector       | Capacity Level     |
|----------------------------------|-------------------------|-------|--------------|--------------------|
| Baseline information             | 0                       | Local | Multi-sector | 1: No capacity     |
| Target performance at completion | 30                      | Local | Multi-sector | 3: Medium capacity |
| Performance at mid-term          | 54                      | Local | Multi-sector | 3: Medium capacity |

|                           |  |  |  |  |
|---------------------------|--|--|--|--|
| Performance at completion |  |  |  |  |
|                           |  |  |  |  |

### Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes

#### Indicator 3.1: Increase in application of appropriate adaptation responses

|                                  | Percentage of targeted population applying adaptation measures | Sector      |
|----------------------------------|----------------------------------------------------------------|-------------|
| Baseline information             | 0                                                              | Agriculture |
| Target performance at completion | 75                                                             | Agriculture |
| Performance at mid-term          | 3.3                                                            | Agriculture |
| Performance at completion        |                                                                |             |

#### Output 3.1: Targeted population groups participating in adaptation and risk reduction awareness activities

Indicator 3.1.1: Percentage of targeted population awareness of predicted adverse impacts of climate change, and of appropriate responses

|                                  | No. of targeted beneficiaries | % of female participants targeted | Level of awareness |
|----------------------------------|-------------------------------|-----------------------------------|--------------------|
| Baseline information             | 0                             | 0                                 | 3: Partially aware |
| Target performance at completion | 10000                         | 50                                | 4: Mostly aware    |
| Performance at mid-term          | 4500                          | 49.5                              | 3: Partially aware |
| Performance at completion        |                               |                                   |                    |

#### Output 3.2: Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning

Indicator 3.2.1: No. of technical committees/associations formed to ensure transfer of knowledge

|                                  | No. of technical committees/associations | % of women represented in committees/associations | Level of awareness |
|----------------------------------|------------------------------------------|---------------------------------------------------|--------------------|
| Baseline information             | 8                                        | 40% to 60%                                        | 3: Partially aware |
| Target performance at completion | 8                                        | 40% to 60%                                        | 4: Mostly aware    |
| Performance at mid-term          | 8                                        | 40% to 60%                                        | 4: Mostly aware    |
| Performance at completion        |                                          |                                                   |                    |

Indicator 3.2.2: No. of tools and guidelines developed (thematic, sectoral, institutional) and shared with relevant stakeholders

|  | No. of tools and guidelines | Type | Scale |
|--|-----------------------------|------|-------|
|--|-----------------------------|------|-------|

|                                  |    |           |       |
|----------------------------------|----|-----------|-------|
| Baseline information             | 0  | Handbooks | Local |
| Target performance at completion | 15 | Handbooks | Local |
| Performance at mid-term          | 5  | Handbooks | Local |
| Performance at completion        |    |           |       |

#### Outcome 4: Increased adaptive capacity within relevant development sector services and infrastructure assets

##### Indicator 4.1: Increased responsiveness of development sector services to evolving needs from changing and variable climate

|                                  | Project/programme sector | Geographical scale | Response level                                |
|----------------------------------|--------------------------|--------------------|-----------------------------------------------|
| Baseline information             | Multi-sector             | Local              | 1: Non responsive (Lacks all elements)        |
| Target performance at completion | Multi-sector             | Local              | 5: Highly responsive (All defined elements)   |
| Performance at mid-term          | Multi-sector             | Local              | 2: Partially responsive (Lacks most elements) |
| Performance at completion        |                          |                    |                                               |

##### Core Indicator 4.2: Assets produced, developed, improved or strengthened

|                                  | Sector                  | Targeted asset                                           | Changes in asset (quantitative or qualitative) |
|----------------------------------|-------------------------|----------------------------------------------------------|------------------------------------------------|
| Baseline information             | Agriculture             | 2: Physical asset (produced/improved/strengthened)       | 1: Not improved                                |
| Baseline information             | Water management        | 1: Health and Social Infrastructure (developed/improved) | 1: Not improved                                |
| Baseline information             | Disaster risk reduction | 1: Health and Social Infrastructure (developed/improved) | 1: Not improved                                |
| Baseline information             | Other                   | 2: Physical asset (produced/improved/strengthened)       | 1: Not improved                                |
| Target performance at completion | Agriculture             | 2: Physical asset (produced/improved/strengthened)       | 4: Mostly Improved                             |
| Target performance at completion | Water management        | 1: Health and Social Infrastructure (developed/improved) | 2: Somewhat improved                           |
| Target performance at completion | Disaster risk reduction | 1: Health and Social Infrastructure (developed/improved) | 4: Mostly Improved                             |
| Target performance at completion | Other                   | 2: Physical asset (produced/improved/strengthened)       | 3: Moderately improved                         |
| Performance at mid-term          | Agriculture             | 2: Physical asset (produced/improved/strengthened)       | 3: Moderately improved                         |
| Performance at mid-term          | Water management        | 1: Health and Social                                     | 1: Not improved                                |

|                           |                         |                                                                |                        |
|---------------------------|-------------------------|----------------------------------------------------------------|------------------------|
|                           |                         | Infrastructure<br>(developed/improved)                         |                        |
| Performance at mid-term   | Disaster risk reduction | 1: Health and Social<br>Infrastructure<br>(developed/improved) | 3: Moderately improved |
| Performance at mid-term   | Other                   | 2: Physical asset<br>(produced/improved/strengthened)          | 2: Somewhat improved   |
| Performance at completion |                         |                                                                |                        |

**Indicator 4.1.1: Vulnerable development sector services and infrastructure assets strengthened in response to climate change impacts, including variability**

Indicator 4.1.1: No. and type of development sector services to respond to new conditions resulting from climate variability and change

|                                  | Number of services | Type | Sector           |
|----------------------------------|--------------------|------|------------------|
| Baseline information             | 0                  |      | Agriculture      |
| Baseline information             | 0                  |      | Water management |
| Baseline information             | 0                  |      | Other            |
| Target performance at completion | 4                  |      | Agriculture      |
| Target performance at completion | 1                  |      | Water management |
| Target performance at completion | 1                  |      | Other            |
| Performance at mid-term          | 2                  |      | Agriculture      |
| Performance at mid-term          | 1                  |      | Water management |
| Performance at mid-term          | 1                  |      | Other            |
| Performance at completion        |                    |      |                  |

**Outcome 5: Increased ecosystem resilience in response to climate change and variability-induced stress**

**Indicator 5: Ecosystem services and natural resource assets maintained or improved under climate change and variability-induced stress**

|                                  | Natural resource improvement level | Sector      | Type              |
|----------------------------------|------------------------------------|-------------|-------------------|
| Baseline information             | 1: Ineffective                     | Agriculture | Biological assets |
| Target performance at completion | 4: Effective                       | Agriculture | Biological assets |
| Performance at mid-term          | 4: Effective                       | Agriculture | Land              |
| Performance at mid-term          | 3: Moderately effective            | Agriculture | Biological assets |
| Performance at completion        |                                    |             |                   |

**Output 5: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability**

Core Indicator 5.1: Natural Assets protected or rehabilitated

|                                  | Natural asset or Ecosystem (type) | Total number of natural assets or ecosystems protected/rehabilitated | Unit | Effectiveness of protection/rehabilitation |
|----------------------------------|-----------------------------------|----------------------------------------------------------------------|------|--------------------------------------------|
| Baseline information             |                                   |                                                                      |      |                                            |
| Target performance at completion |                                   |                                                                      |      |                                            |
| Performance at mid-term          |                                   |                                                                      |      |                                            |
| Performance at completion        |                                   |                                                                      |      |                                            |

**Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas**

**Indicator 6.1: Increase in households and communities having more secure access to livelihood assets**

|                                  | No. of targeted households | % of female headed households | Improvement level       |
|----------------------------------|----------------------------|-------------------------------|-------------------------|
| Baseline information             | 0                          | 0                             | 1: No improvement       |
| Target performance at completion | 5000                       | 50                            | 3: Moderate improvement |
| Performance at mid-term          | 8037                       | 36                            | 3: Moderate improvement |
| Performance at completion        |                            |                               |                         |

**Indicator 6.2: Increase in targeted population's sustained climate-resilient alternative livelihoods**

|                                  | No. of targeted households | % of female headed households | % increase in income level vis-à-vis baseline | Alternate Source     |
|----------------------------------|----------------------------|-------------------------------|-----------------------------------------------|----------------------|
| Baseline information             | 0                          | 0                             | From 0 to 0.5%                                | Agricultural-related |
| Target performance at completion | 5000                       | 50                            | From 10% to 20%                               | Agricultural-related |
| Performance at mid-term          | 8037                       | 36                            | From 10% to 20%                               | Agricultural-related |
| Performance at completion        |                            |                               |                                               |                      |

**Output 6 Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability**

Indicator 6.1.1: No. and type of adaptation assets created or strengthened in support of individual or community livelihood strategies

|                      | Number of Assets | Type of Assets        | Sector      | Adaptation strategy    |
|----------------------|------------------|-----------------------|-------------|------------------------|
| Baseline information | 0                | Adaptation strategies | Agriculture | Supporting livelihoods |
| Target performance   | 100              | Adaptation strategies | Agriculture | Supporting             |

|                           |     |                       |             |                        |
|---------------------------|-----|-----------------------|-------------|------------------------|
| at completion             |     |                       |             | livelihoods            |
| Performance at mid-term   | 109 | Adaptation strategies | Agriculture | Supporting livelihoods |
| Performance at completion |     |                       |             |                        |

#### Core Indicator 6.1.2: Increased income, or avoided decrease in income

|                                  | Number of households<br>(total number in the project area) | Income source        | Income level (USD) |
|----------------------------------|------------------------------------------------------------|----------------------|--------------------|
| Baseline information             | 0                                                          | Agricultural-related | 0                  |
| Target performance at completion | 5000                                                       | Agricultural-related |                    |
| Performance at mid-term          | 8037                                                       | Agricultural-related |                    |
| Performance at completion        |                                                            |                      |                    |

### Outcome 7: Improved policies and regulations that promote and enforce resilience measures

#### Indicator 7: Climate change priorities are integrated into national development strategy

|                                  | Integration level |
|----------------------------------|-------------------|
| Baseline information             |                   |
| Target performance at completion |                   |
| Performance at mid-term          |                   |
| Performance at completion        |                   |

#### Output 7: Improved integration of climate-resilience strategies into country development plans

Indicator 7.1: No. of policies introduced or adjusted to address climate change risks

|                                  | No. of Policies introduced or adjusted | Sector | Scale | Type |
|----------------------------------|----------------------------------------|--------|-------|------|
| Baseline information             |                                        |        |       |      |
| Target performance at completion |                                        |        |       |      |
| Performance at mid-term          |                                        |        |       |      |
| Performance at completion        |                                        |        |       |      |

#### Indicator 7.2: No. of targeted development strategies with incorporated climate change priorities enforced

|                                  | No. of Development strategies | Regulation | Effectiveness |
|----------------------------------|-------------------------------|------------|---------------|
| Baseline information             |                               |            |               |
| Target performance at completion |                               |            |               |
| Performance at mid-term          |                               |            |               |

|                           |  |  |  |
|---------------------------|--|--|--|
| Performance at completion |  |  |  |
|                           |  |  |  |

## Outcome 8: Support the development and diffusion of innovative adaptation practices, tools and technologies

**Indicator 8: Innovative adaptation practices are rolled out, scaled up, encouraged and/or accelerated at regional, national and/or subnational level**

|                                  | Sector of innovative practice | Geographic Scale | Type |
|----------------------------------|-------------------------------|------------------|------|
| Baseline information             |                               |                  |      |
| Target performance at completion |                               |                  |      |
| Performance at mid-term          |                               |                  |      |
| Performance at completion        |                               |                  |      |

**Output 8: Viable innovations are rolled out, scaled up, encourages and/or accelerated**

Indicator 8.1: No. of innovative adaptation practices, tools and technologies accelerated, scaled-up and/or replicated

|                                  | No. of innovative practices/ tools technologies | Sector | Status | Effectiveness |
|----------------------------------|-------------------------------------------------|--------|--------|---------------|
| Baseline information             |                                                 |        |        |               |
| Target performance at completion |                                                 |        |        |               |
| Performance at mid-term          |                                                 |        |        |               |
| Performance at completion        |                                                 |        |        |               |

**Indicator 8.2: No. of key findings on effective, efficient adaptation practices, products and technologies generated**

|                                  | No. of key findings generated | Type | Effectiveness |
|----------------------------------|-------------------------------|------|---------------|
| Baseline information             |                               |      |               |
| Target performance at completion |                               |      |               |
| Performance at mid-term          |                               |      |               |
| Performance at completion        |                               |      |               |