

# iCARE Innovation Fund

## Climate Resilient Infrastructure for Social Transformation and Adaptation (CRISTA) 2.0

### Monthly Progress Report

**Reporting Period (05, 2024)**

Prepared by: Asian Institute of Technology (AIT)

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# 1. Project Information

<b>Project Title:</b>	Climate Resilient Infrastructure for Social Transformation and Adaptation (CRISTA) – 2.0
<b>Project Code:</b>	WBCAR
<b>Partner Organisation:</b>	Asian Institute of Technology
<b>Reporting Period:</b>	1 May 2024 – 31 May 2024
<b>Date of Submission:</b>	5 June 2024
<b>Contact Name:</b>	Dr. Indrajit Pal
<b>Contact Position:</b>	Project Lead
<b>Contact Email Address:</b>	indrajit-pal@ait.ac.th
<b>Contact Telephone Number:</b>	
<b>Status of project progress in this reporting period</b>	<input type="checkbox"/> Significant delay <input type="checkbox"/> Delay <input checked="" type="checkbox"/> On Track
<b>Report sign Off</b>	<input checked="" type="checkbox"/> I have reviewed all the information provided for each section including number of beneficiaries. The information provided for each section of the report is complete.
	Name: Dr. Indrajit Pal      Designation: Project Lead

## 2. Key Achievements

**The project team has submitted the first set of Output Reports for CRISTA 2.0.** There were three Output Reports prepared by the project team and subsequently accepted by ADPC:

- **Output Report for Field Survey and Mapping of Critical Infrastructure in Project Area (i).** This report details the scope of the field mapping and survey activity, its methodology, and the outputs in relation to developing the CRISTA 2.0 database and system. The findings of the survey are also reported.
- **Output Report for Climate Vulnerability and Risk Assessment for Critical Infrastructure Systems in Project Area.** The report documents the climate risk assessment of the study area in support of the CRISTA 2.0 objectives and outcomes. It highlights in detail the quantitative and GIS approaches used to assess flood and landslide risk to critical infrastructure systems (road and power) in the Neelkantha, Gajuri, and Benighat Rorang municipalities; and reports the findings in the form of maps and relevant tables.
- **Output Report for Generation of web-GIS Database and Integration of Baseline Information and Maps.** The report provides an overview of the baseline study and GIS database generation for the CRISTA 2.0 system. It details the methodology, implementation of the database development and how the results of the baseline study, climate risk assessment, and field survey have been integrated.

### 3. Implementation Progress

Activity Title	Last Month Progress	Current Month Progress	Activities, and Events, planned for the subsequent month
Activity 1.1.1: Conduct a Memorandum of Agreement with project local government and concerned authorities  (Dec 2023 - Jan 2024)	<b>Completed</b>	<b>Completed</b>	N/A <i>This activity is completed.</i>
Activity 1.1.2: Conduct baseline study of project areas and boundary partners  (Dec 2023 - Jan 2024)	<b>Completed</b>	<b>Completed</b>	N/A <i>This activity is completed.</i>
Activity 1.1.3: Conduct inception workshop to identify needs and capacity  (Jan 2024)	<b>Completed</b>	<b>Completed</b>	N/A <i>This activity is completed.</i>
Activity 2.1.1: Conduct field survey and mapping of climate hazards and critical infrastructure in project area	<b>Completed</b> - Field surveyors were deployed in the three study area municipalities to collect primary data on CI,	<b>Completed</b>	N/A <i>This activity is completed</i>

Activity Title	Last Month Progress	Current Month Progress	Activities, and Events, planned for the subsequent month
(Jan 2024 - Mar 2024)	<p>mapping hazard prone locations, and mitigation measures.</p> <ul style="list-style-type: none"> <li>- Field survey and mapping has been concluded. All field data requirements for future analyses have been fulfilled.</li> </ul>		
<p>Activity 2.1.2: Conduct climate vulnerability and risk assessment for critical infrastructure systems (CIS) in the project area</p> <p>(Feb 2024 - May 2024)</p>	<p><b>Completed</b></p> <ul style="list-style-type: none"> <li>- Climate vulnerability and risk assessments (CVRA) has been conducted using the primary and secondary data collected.</li> <li>- CVRA is documented in an output report which includes case studies of all three municipalities.</li> </ul>	<p><b>Completed</b></p>	<p><i>N/A</i> <i>This activity is completed.</i></p>

Activity Title	Last Month Progress	Current Month Progress	Activities, and Events, planned for the subsequent month
<p>Activity 2.1.3: Generate web-based GIS database and integrate baseline information and maps</p> <p>(April 2024 - May 2024)</p>	<p><b>Completed</b></p> <ul style="list-style-type: none"> <li>- GIS database generation has been completed. Collected primary and secondary data have been integrated into the database.</li> <li>- Maps have been produced to illustrate existing CIS in the study areas.</li> <li>- GIS database has been documented in an output report.</li> </ul>	<p><b>Completed</b></p>	<p>N/A</p> <p><i>This activity is completed.</i></p>
<p>Activity 2.1.4: Upgrade CRISTA dashboard, user interface and mobile application including field testing</p> <p>(April 2024 - July 2024)</p>	<p><b>Completed</b></p> <ul style="list-style-type: none"> <li>- Project team has completed subcontracting process with the consultant IT firm.</li> <li>- Consultant IT firm has begun operational activities to develop the CRISTA 2.0 application and dashboard.</li> <li>- Kick-off meeting has been conducted with consultant IT firm. Milestones and workplan have been defined.</li> </ul>	<p><b>In-progress</b></p> <ul style="list-style-type: none"> <li>- Project team has been closely engaging with consultant IT firm for the development of the mobile app and dashboard of the CRISTA 2.0 system.</li> </ul>	<p><b>In-progress</b></p> <ul style="list-style-type: none"> <li>- Project team will continue close coordination with consultant IT firm to monitor and evaluate developments of CRISTA 2.0 mobile app and dashboard.</li> <li>- Consultant team will deliver functional prototypes of the CRISTA 2.0 system components (mobile app and dashboard) to the project team.</li> </ul>

Activity Title	Last Month Progress	Current Month Progress	Activities, and Events, planned for the subsequent month
Activity 3.1.1: Establishment of CRISTA-2.0 monitoring system in local governments and integration with existing ICT systems  (July 2024 - Aug 2024)	<b>Completed</b> <ul style="list-style-type: none"> <li>- Survey team has completed data collection for the stakeholder needs and capacity assessment.</li> <li>- Data has been synthesized and analysed to determine gaps in local provisions, resources and ICT systems.</li> <li>- Stakeholder needs and capacity assessment has been documented in an output report.</li> </ul>	<b>In-progress</b> <ul style="list-style-type: none"> <li>- The project team has continued analysis for entry points where CRISTA 2.0 system can be integrated within municipal ICT systems.</li> </ul>	<b>In-progress</b> <ul style="list-style-type: none"> <li>- The project team will develop an internal operational plan which outlines integration process of the CRISTA 2.0 system into the target municipal systems.</li> </ul>
Activity 3.1.2: Development of SOP for CRISTA system  (Aug 2024 - Sept 2024)	<b>Planned in Aug 2024</b>	<b>Planned in Aug 2024</b>	N/A
Activity 3.1.3: TOT to technical officers of project area local governments on use of CRISTA system  (Sept 2024 - Oct 2024)	<b>Planned in Sep 2024</b>	<b>Planned in Sep 2024</b>	N/A

Activity Title	Last Month Progress	Current Month Progress	Activities, and Events, planned for the subsequent month
Activity 3.2.1: Develop and produce IEC materials for public awareness on CRISTA system application  (Oct 2024 - Nov 2024)	<b>Completed</b> - The project team has produced a two-minute promotional video which describes the CRISTA 2.0 project and system. - The project team has also developed a poster of the CRISTA 2.0 project and system which was exhibited during the European Geosciences Union (EGU) General Assembly.	N/A	N/A
Activity 3.2.2: Community level training program for incident reporting by general public  (Nov 2024 - Dec 2024)	Planned in Nov 2024	Planned in Nov 2024	N/A
Activity 4.1.1: Prepare CRISTA 2.0 knowledge products and visual documentation  (Nov 2024 - Dec 2024)	<b>Completed</b> - A poster was developed and presented for the EGU General Assembly 2024 based on an abstract titled <i>'Critical Infrastructure Resilience and Social Transformation through</i>	N/A	N/A



Activity Title	Last Month Progress	Current Month Progress	Activities, and Events, planned for the subsequent month
	<p><i>Real-time Monitoring and Risk Informed Decision Making for Climate Adaptation'.</i></p> <ul style="list-style-type: none"> <li>- The project team has generated a GIS database which has been integrated with the results of the baseline study as well as primary and secondary data. An output report for this activity has been generated.</li> <li>- The project team has produced a climate vulnerability and risk assessment of the three municipalities. An output report for this activity has been generated.</li> </ul>		
Activity 4.1.2: Conduct a project completion and lesson sharing workshop at regional or national level and report project achievements	<b>- Planned in Dec 2024</b>	<b>- Planned in Dec 2024</b>	<b>N/A</b>

Activity Title	Last Month Progress	Current Month Progress	Activities, and Events, planned for the subsequent month
(Dec 2024 - Jan 2025)			

#### 4. Results Framework Indicators Progress

PDO Indicator Description: Government agencies and Citizens who have access to climate-resilient solutions tested under the project				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0	0	0	Government Agencies: 5 Citizens: 300  Total: 305
Date	20 Jan 24	30 April 2024	31 May 2024	31 Dec 2024
Comments	Local governments and communities' ability to monitor climate-induced hazards on critical infrastructure systems in real-time is enhanced, improving their response capacity and contributing to improved climate adaptation through infrastructure resilience in Nepal.			
<b>Outcome 1 Indicator Description:</b> Number of people participating in supported events (by participant category, sex, year, theme, country)				
Value	N/A	N/A	59	59
Date	20 Jan 24	30 April 2024	31 May 2024	31 Jan 2024
Comments	Outcome 1 has been completed.			

<b>Output 1.1 Indicator Description:</b> Number of endorsement letters received from government agencies for the implementation of project/development of solution.				
Value	N/A	3	3	3
Date	20 Jan 24	30 April 2024	31 May 2024	31 May 2024
Comments	Output 1.1 has been achieved.			
<b>Outcome 2 Indicator Description:</b> Number of knowledge products provided (by type of product, theme, country)				
Value	0	4	4	10
Date	20 Jan 24	30 April 2024	31 May 2024	31 July 2024
Comments				
<b>Outcome 3 Indicator Description:</b> Number of incident reports generated by the system (infrastructure, location, hazard, level of damage)				
Value	0	0	0	300
Date	20 Jan 24	30 April 2024	31 May 2024	31 Dec 2024
Comments				
<b>Output 3.1 Indicator Description:</b> Number of people trained (in person) (by sex, country, topic, year, participant category)				
Value	0	0	0	30
Date	20 Jan 24	30 April 2024	31 May 2024	31 Oct 2024
Comments				
<b>Output 3.2 Indicator Description:</b> Number of people trained (in person) (by sex, country, topic, year, participant category)				
Value	0	0	0	200
Date	20 Jan 24	30 April 2024	31 May 2024	31 Dec 2024
Comments				

<b>Outcome 4 Indicator Description:</b> Number of events supported (by type, year, theme, country)				
Value	0	3	3	23
Date	20 Jan 24	30 April 2024	31 May 2024	31 Feb 2025
Comments		- European Geosciences Union (EGU) General Assembly, 14-19 April 2024.		
<b>Outcome 4 Indicator Description:</b> Number of people participating in supported events (by participant category, sex, year, theme, country)				
Value	0	271	271	470
Date	20 Jan 24	30 April 2024	31 May 2024	28 Feb 2025
Comments		- European Geosciences Union (EGU) General Assembly, 14-19 April 2024.		
<b>Output 4.1 Indicator Description:</b> Number of knowledge products provided (by type of product, theme, country)				
Value	0	7	7	8
Date	20 Jan 24	30 April 2024	31 May 2024	31 Dec 2024
Comments		- Promotional video - Poster and abstract of CRISTA 2.0 for the EGU General Assembly 2024. - Blog published in the AIT website		

		(published in March 2024).		
<b>Output 4.1 Indicator Description:</b> Number of people / organizations provided with knowledge products (by recipient category, type of knowledge product, country, theme)				
Value	0	271	271	620
Date	20 Jan 24	30 April 2024	31 May 2024	31 Dec 2024
Comments		- Poster for CRISTA 2.0 was presented to the Assembly participants.		

**5. Challenges, Lessons Learned and Way Forward**

<b>Challenges</b>	<b>Lessons Learned</b>	<b>Way Forward</b>
<i>No challenges encountered</i>		

## Annexures:

1. Blog article on CRISTA 2.0 published on the AIT Website - Link [here](#) and [here](#).
2. Poster for CRISTA 2.0 presented in EGU General Assembly 2024 - Link [here](#)

## Glossary

<b>Project Title</b>	means	Exact and full name of the project as defined in the Sub Grant Agreement
<b>Project Code</b>	means	A five-digit code assigned by ADPC
<b>Partner Organization</b>	means	The lead agency(ies) responsible for the implementation of the project
<b>Key Achievements</b>	means	The actual outcome or impact of your work, such as reaching a PDO, or outcome or output defined in the final and agreed Results Framework.
<b>Implementation Progress</b>	means	Implementation progress means the steps or actions taken to achieve the PDO or outcomes or outputs. In this case it would be the list of activities defined in the final and approved work plan
<b>Challenges</b>	means	The most significant and persistent areas of risk that affect the project's ability to achieve its objectives. Challenges could be related to managing the Sub Grant, sustaining development gains, coordinating with stakeholders, and implementing core management functions. Please also discuss the solutions to mitigate these risks.
<b>Lessons Learned</b>	means	Lessons learned are contextual or operational information that may affect planning and future performance. They highlight the insights gained from the activity's implementation practices and progress, such as staff feedback, stakeholder interviews, data analysis, and success stories. They also include any changes required by or support requested from ADPC or partners.





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