

iCARE Innovation Fund

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

Monthly Progress Report

Reporting Period (04, 2024)

1. Project Information

Project Title:	Climate Resilient Infrastructure for Social Transformation and Adaptation (CRISTA) – 2.0
Project Code:	WBCAR
Partner Organisation:	Asian Institute of Technology
Reporting Period:	1 - 30 April 2024
Date of Submission:	10 May 2024
Contact Name:	Dr. Indrajit Pal
Contact Position:	Project Lead
Contact Email Address:	indrajit-pal@ait.ac.th
Contact Telephone Number:	
Status of project progress in this reporting period	<input type="checkbox"/> Significant delay <input type="checkbox"/> Delay <input checked="" type="checkbox"/> On Track
Report sign Off	<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 CRISTA team has completed the field mapping and survey activity in the three study area municipalities.** The survey collected primary data for critical infrastructure systems, specifically for road and power, in the study areas. The data collected in this activity is useful in assessing the risk and vulnerability of CIS to climate-induced hazards. The survey also included deploying questionnaires to local stakeholders as part of the stakeholder needs and capacity assessment. The activity has been documented in an output report.
- **The CRISTA team has successfully generated a GIS database in support of the CRISTA 2.0 system development.** This activity integrates primary and secondary data into a comprehensive and granular geospatial database, which include datasets for road, power, and social infrastructure. The database is a foundational component of the CRISTA 2.0 system, and it will be further integrated within the dashboard to assist in climate adaptation decision making. The database generation activity has been described in detail in an output report.
- **The CRISTA team has developed a climate and vulnerability risk assessment of critical infrastructure systems in the study area.** The project team employed a risk and vulnerability assessment analytical framework and analysed the collected primary and secondary data to produce risk profiles of the study area. The assessments will inform municipal authorities regarding road segments which are at risk of floods and landslides. The risk assessment will be integrated in the CRISTA 2.0 system. The process and findings of the risk assessment has been comprehensively outlined in an output report.
- **The CRISTA team has concluded the contracting process with the consultant IT firm to develop the CRISTA 2.0 Application and Dashboard.** The selection and contracting process were made in accordance with the approved procurement plan by ADPC. A kick off meeting has been conducted to initiate the system development task and determine milestones and operational development plan of the application and dashboard.
- **CRISTA participated in the European Geosciences Union (EGU) General Assembly held in Vienna, Austria on 14-19 April 2024.** As part of the participation, the CRISTA team produced an abstract and poster titled '*Critical Infrastructure Resilience and Social Transformation through Real-time Monitoring and Risk Informed Decision Making for Climate Adaptation*'. The poster was presented in-person by the CRISTA 2.0 project lead, Dr. Indrajit Pal, to both the online and in-person audience. The General Assembly is a prestigious European geosciences event. It welcomed over 20,000 registered attendees from over 110 countries who joined either in-person at the Austria Center, Vienna, or online.

3. Implementation Progress

Activity Title	Last Month Progress	Current Month Progress	Activities, and Events, planed for the subsequent month
Activity 1.1.1: Conduct a Memorandum of Agreement with project local government and concerned authorities (Dec 2023 - Jan 2024)	<i>Completed</i>	<i>Completed</i>	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)	<i>Completed</i>	<i>Completed</i>	N/A <i>This activity is completed.</i>
Activity 1.1.3: Conduct inception workshop to identify needs and capacity (Jan 2024)	<i>Completed</i>	<i>Completed</i>	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 (Jan 2024 - Mar 2024)	Completed <ul style="list-style-type: none"> - Project team has concluded contracting process with consultant. - Pilot test of the field mapping and survey activity has been completed. - Data collection tools are ready to be deployed. 	Completed <ul style="list-style-type: none"> - Field surveyors were deployed in the three study area municipalities to collect primary data on CI, mapping hazard prone locations, and mitigation measures. - Field survey and mapping has been concluded. All field data requirements for future analyses have been fulfilled. 	N/A <i>This activity is completed.</i>

<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>Completed</p> <ul style="list-style-type: none"> - Climate vulnerability and risk assessment framework and indicators have been developed. 	<p>Completed</p> <ul style="list-style-type: none"> - Climate vulnerability and risk assessments (CVRA) has been conducted using the primary and secondary data collected. - CVRA is documented in an output report which includes case studies of all three municipalities. 	<p>N/A</p> <p><i>This activity is completed.</i></p>
<p>Activity 2.1.3: Generate web-based GIS database and integrate baseline information and maps</p> <p>(April 2024 - May 2024)</p>	<p>Completed</p> <ul style="list-style-type: none"> - All data collected from primary and secondary sources are being transformed into geo-spatial datasets (vector, raster files). 	<p>Completed</p> <ul style="list-style-type: none"> - GIS database generation has been completed. Collected primary and secondary data have been integrated into the database. - Maps have been produced to illustrate existing CIS in the study areas. - GIS database has been documented in an output report. 	<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>Completed</p> <ul style="list-style-type: none"> - Project team has selected consulting firm to develop the CRISTA 2.0 application and dashboard, in accordance with the procurement plan. - Initial introduction and coordination meetings have been held between the project team and consulting firm. 	<p>Completed</p> <ul style="list-style-type: none"> - Project team has completed subcontracting process with the consultant IT firm. - Consultant IT firm has begun operational activities to develop the CRISTA 2.0 application and dashboard. - Kick-off meeting has been conducted 	<p>In-progress</p> <ul style="list-style-type: none"> - Project team will continue close engagement with consultant IT firm in the development of the mobile app and platform in accordance with the project requirements.

	Contracting process is underway.	with consultant IT firm. Milestones and workplan have been defined.	
Activity 3.1.1: Establishment of CRISTA-2.0 monitoring system in local governments and integration with existing ICT systems (July 2024 - Aug 2024)	Completed - Stakeholder needs and capacity assessment questionnaire has been administered to understand local provisions, resources and ICT system.	Completed - Survey team has completed data collection for the stakeholder needs and capacity assessment. - Data has been synthesized and analysed to determine gaps in local provisions, resources and ICT systems. - Stakeholder needs and capacity assessment has been documented in an output report.	In-progress - Based on the results of the stakeholder needs and capacity assessment, the project team will begin identification of entry points where CRISTA 2.0 system can be integrated within municipal ICT systems.
Activity 3.1.2: Development of SOP for CRISTA system (Aug 2024 - Sept 2024)	Planned in Aug 2024	Planned in Aug 2024	N/A
Activity 3.1.3: TOT to technical officers of project area local governments on use of CRISTA system (Sept 2024 - Oct 2024)	Planned in Sep 2024	Planned in Sep 2024	N/A
Activity 3.2.1: Develop and produce IEC materials for public awareness on CRISTA system application (Oct 2024 - Nov 2024)	Completed - The team has produced a promotional flyer for CRISTA 2.0 and circulated during the National Dialogue on Climate Change (NDCC) and Climate Innovation for Women	Completed - 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	N/A

	Empowerment (CIWE).	and system which was exhibited during the European Geosciences Union (EGU) General Assembly.	
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)	Completed - A promotional flyer has been produced by the team. The flyer provides a brief explanation on the CRISTA 2.0 project and the utility and functionality of the CRISTA system. - CRISTA team generated and disseminated reports for the events.	Completed - 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 Real-time Monitoring and Risk Informed Decision Making for Climate Adaptation</i> '. - 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. - The project team has produced a climate vulnerability and risk assessment	N/A

		of the three municipalities. An output report for this activity has been generated.	
Activity 4.1.2: Conduct a project completion and lesson sharing workshop at regional or national level and report project achievements (Dec 2024 - Jan 2025)	- Planned in Dec 2024	- Planned in Dec 2024	N/A

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	31 March 2024	30 April 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.			
Outcome 1 Indicator Description: Number of people participating in supported events (by participant category, sex, year, theme, country)				
Value	N/A	0	59	59
Date	20 Jan 24	31 March 2024	30 April 2024	31 Jan 2024
Comments	Outcome 1 has been completed.			
Output 1.1 Indicator Description: Number of endorsement letters received from government agencies for the implementation of project/development of solution.				
Value	N/A	N/A	3	3
Date	20 Jan 24	31 March 2024	30 April 2024	31 Jan 2024
Comments	Output 1.1 has been achieved.			
Outcome 2 Indicator Description: Number of knowledge products provided (by type of product, theme, country)				
Value	0	0	4	10
Date	20 Jan 24	31 March 2024	30 April 2024	31 July 2024

Comments	The project team has developed four knowledge products: a GIS database and a climate vulnerability and risk assessment of three municipalities.			
Outcome 3 Indicator Description: Number of incident reports generated by the system (infrastructure, location, hazard, level of damage)				
Value	0	0	0	300
Date	20 Jan 24	31 March 2024	30 April 2024	31 Dec 2024
Comments				
Output 3.1 Indicator Description: Number of people trained (in person) (by sex, country, topic, year, participant category)				
Value	0	0	0	30
Date	20 Jan 24	31 March 2024	30 April 2024	31 Oct 2024
Comments				
Output 3.2 Indicator Description: Number of people trained (in person) (by sex, country, topic, year, participant category)				
Value	0	0	0	200
Date	20 Jan 24	31 March 2024	30 April 2024	31 Dec 2024
Comments				
Outcome 4 Indicator Description: Number of events supported (by type, year, theme, country)				
Value	0	2	3	23
Date	20 Jan 24	31 March 2024	30 April 2024	31 Feb 2025
Comments		- National Dialogue on Climate Change (NDCC) - Climate Innovation for Women	- European Geosciences Union (EGU) General Assembly, 14-19 April 2024.	

		Empowerment (CIWE)		
Outcome 4 Indicator Description: Number of people participating in supported events (by participant category, sex, year, theme, country)				
Value	0	271	271	470
Date	20 Jan 24	31 March 2024	30 April 2024	28 Feb 2025
Comments		<ul style="list-style-type: none"> - National Dialogue on Climate Change (NDCC) - Climate Innovation for Woman Empowerment (CIWE) 	<ul style="list-style-type: none"> - European Geosciences Union (EGU) General Assembly, 14-19 April 2024. 	
Output 4.1 Indicator Description: Number of knowledge products provided (by type of product, theme, country)				
Value	0	3	7	8
Date	20 Jan 24	31 March 2024	30 April 2024	31 Dec 2024
Comments		<ul style="list-style-type: none"> - CRISTA Promotional Flyer - Proceedings of the National Dialogue on Climate Change (will be shared after approval from organizers) - Report of Climate Innovation for Women Empowerment 	<ul style="list-style-type: none"> - 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). 	

Output 4.1 Indicator Description: 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	31 March 2024	30 April 2024	31 Dec 2024
Comments		- Flyer was disseminated during the NDCC and CIWE events supported by the project.	- Poster for CRISTA 2.0 was presented to the Assembly participants.	

5. Challenges, Lessons Learned and Way Forward

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

Annexures:

Annex 1: Link to [CRISTA 2.0 Video](#).

Annex 2: Link to [CRISTA 2.0 Poster](#).

Annex 3: [Letter from Neelkantha Municipal Government](#).

Annex 4: [Letter from Gajuri Municipal Government](#).

Annex 5: [Letter from Benighat Rorang Municipal Government](#).

Glossary

Project Title	mea ns	Exact and full name of the project as defined in the Sub Grant Agreement
Project Code	mea ns	A five-digit code assigned by ADPC
Partner Organization	mea ns	The lead agency(ies) responsible for the implementation of the project
Key Achievements	mea ns	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.
Implementation Progress	mea ns	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
Challenges	mea ns	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.
Lessons Learned	mea ns	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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