

UN CTCN Partnership and Liaison Office Regional Capacity Building Program: LAC

Summary Note

AI4ClimateAction

Date & Venue: 3-4 October 2024, San Jose, Costa Rica

Hosting country: Costa Rica

Partnered organization: UNFCCC TEC

Background: In June 2023, the UNFCCC Technology Mechanism launched Initiative on Artificial Intelligence (AI) for Climate Action (#AI4ClimateAction) to explore the role of AI in advancing digitalisation and scaling up transformative climate solutions in developing countries. With a specific focus on least-developed countries (LDCs) and small island developing States (SIDS), the Technology Executive Committee (TEC) and the Climate Technology Centre and Network (CTCN) will jointly:

- Provide a space for policy discussions, including UNFCCC national focal points and NDEs, awareness raising, and exchange of knowledge and experience among relevant stakeholders on developing and deploying climate solutions powered by AI;
- Support capacity-building efforts in developing countries to leverage emerging digital technologies and devise locally led solutions harnessing AI;
- Develop CTCN regional networks of entities supporting AI for climate actions.

Purpose and participants: The main objective of this capacity building program on AI4Climate Action is to increase NDE's knowledge related to AI technologies and assist the formation of NDE-led regional networks of entities supporting AI for climate actions. For the LAC program, 22 NDEs and their representatives participated (see Annex I for a full list and group photos). The program introduced key local and regional players of AI4Climate action, to allow discussion and reflection among countries on #AI4ClimateAction initiative (see Annex II for the detailed agenda).

Approaches and activities: Centering a holistic approach, this program communicated the expected role of AI in advancing climate action and the necessity of engaging individuals at all levels – from policymakers, technology solution holders, and citizens. A five-step co-creation process was applied using four sequential methods: Segmentation, Education-focused information distribution, National-level need identification, and Participatory sessions. Table 1 illustrates all sub-activities and expected outputs of the process undertaken.

Table 1 Overall process of facilitating co-creation of AI-technology-led Climate Technology Innovation

Process	Methods Applied	Program Activities	Outputs
1. Planning	Segmentation	NDC and Network analyses and Pre-program survey	Identification of potential groups with similar AI technology needs
2. Sensitizing	Information distribution	1 Keynote speech and 17 lecture presentations	Introduction to the locally led and region-wide initiative, ongoing global agenda dialogues around AI technology and its regulatory framework
	Need Identification	In-program survey and pre-program survey results	Sharing of NDC analyses on AI applicability and discussing perceived benefits of adopting AI technology for climate action
3. Facilitating	Participatory sessions	Roundtable on challenges and lessons learned on national policies for promoting AI	Understanding AI national policy of Costa Rica and Chile and discussing
		Brainstorming workshop on barriers	Identification of perceived barriers and challenges of adopting AI technology for climate action
4. Engaging		Networking with members with AI techs	Introduction to prospective Network members with AI solutions from the region
5. Analyzing	Evaluation	Post-program engagement	Analyses of insights gathered from NDEs and follow-up on the bilateral results

Step 1. Planning: The key to this step is preparing materials and resources for the upcoming steps. In the planning stage, CTCN reviewed 169 National Determined Contributions (NDCs) mentioning AI applications for climate mitigation and/or adaptation and conducted the status check of global Network members on AI solutions. This step also involved the collection of countries' interests towards AI technology and sector priorities.

First, in the retrospective analysis of 169 countries that submitted NDCs, 57 countries mentioned digitalisation and of those, 0 countries from the LAC region expressed their national plan to apply Artificial Intelligence-related technologies for mitigation and adaptation (see Figure 1).

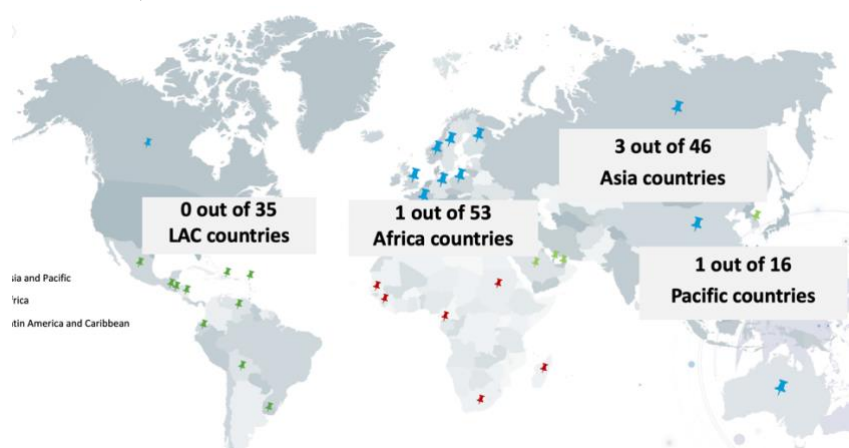


Figure 1 Global status - NDCs and AI technology

Of 35 submitted NDCs from LAC countries, 9 countries¹ had a brief plan on digitalisation in agriculture (i.e. Bolivia, Dominica), water and wastewater management (i.e. Paraguay), electric vehicle mobility (i.e. Uruguay), business and industry (i.e. Barbados, Costa Rica, Dominican Republic, Peru) sectoral transformation. Nicaragua mentioned digitalization for data sharing transparency. Considering the NDC is the most critical document guiding the next TA project support, we have taken these results to understand the current level of countries' readiness to adopt AI technology.

CTC Network member analysis was conducted to examine the current status of the global AI network pool that our NDEs have full access of. Among 830 Network members, 25 classifies their main climate technology solution as AI-driven (see Figure 2 and Annex III for the full list). When we stretched the analysis to include Network members with the potential to provide AI-based climate technology solutions, 35 Korean Network members were added. Two weeks before the program, we invited a prospective Network member from the region (i.e. The Cleaner Wave) to voluntarily join networking opportunity with NDEs.



Figure 2 CTC Network with specialties in AI

A week before the program, confirmed NDEs (N=22) were invited to complete the pre-program survey consisting of 5 questionnaires. Two questions were for a Free Association Test (FAT), to reveal preconceived ideas related to 'Digitalisation' and 'Artificial Intelligence'. The FAT analyses were conducted considering sub-regional language differences (see Figure 3 for the word cloud of each keyword). Three questions were to identify sector preferences and perceived readiness to adopt AI technology.

FAT results for both English- and Spanish-speaking LAC countries revealed perceived digitalisation as an *additionality* for 'transparency', 'sustainability', and 'automization/data

¹ Barbados, Bolivia (Plurinational State of), Costa Rica, Dominica, Dominican Republic, Nicaragua, Paraguay, Peru, Uruguay

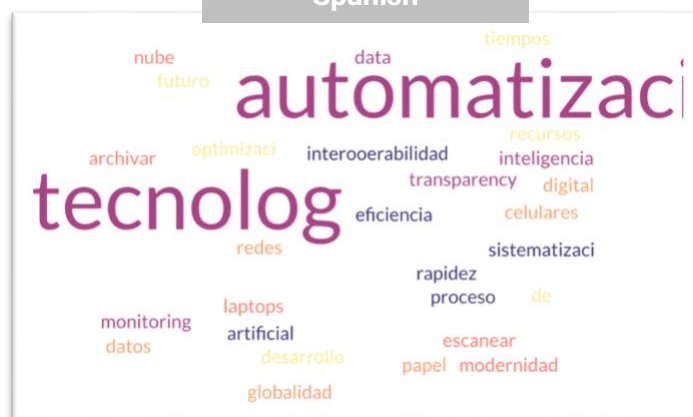
stock/information monitoring'. Association to the keyword 'AI technology' informed the region's expectation of increased *practicality*, 'analysis', 'efficiency', and 'convenience' per se, as results of adopting AI technology for climate action.

3 keywords that comes into your mind, when you think of 'Digitalization'

English



Spanish



3 keywords that comes into your mind, when you think of 'Artificial Intelligence'

English



Spanish



Figure 3 FAT test results

Of all system transformation sectors, NDEs considered 'Water-Energy-Food nexus' (n=10) as the most urgent field to apply AI technology, followed by 'Energy Systems' (n=3), 'Sustainable Mobility' and 'Buildings and Infrastructure' (n=2, each respectively), and 'Business and Industry' (n=1).

Applying segmentation methods, we triangulated participants' responses of 'Most urgent sector that requires digitalisation' and 'Agreeableness that AI technologies will benefit the sectoral transformation', and NDC analyses mentioning the AI application for climate. As a

result, 4 sub-groups with similar interests towards AI technology, sector priorities, and country readiness were identified. Table 2 summarises classified groups.

Table 2 Summary of grouped countries following 'Pre-program survey' results

Group number	Countries grouped by matching sector and readiness.	Most urgent sector that requires digitalisation	Agree that AI technologies will benefit the sectoral transformation	NDCs
1	St. Kitts and Nevis, Panama, Colombia, Costa Rica	Water-Energy-Food Nexus	Strongly agree	No (Yes - Costa Rica only)
2	Haiti, Republica Dominicana, Antigua and Barbuda, Uruguay	Sustainable Mobility/Buildings and Infrastructure	Strongly agreed/agreed mixed	No (Yes - Republica Dominicana and Uruguay)
3	Venezuela, Perú, Paraguay, Chile	Water-Energy-Food Nexus	Strongly agreed/agreed mixed	No (Yes - Perú and Paraguay)
4	Jamaica, Ecuador, Cuba, Suriname	Energy System/Business and Industry	Strongly agreed/Neutral mixed	No

Step 2. Sensitizing: The key to the second step is familiarising the audiences with the context of AI applications. We coordinated 1 keynote speech and 17 lecture presentations to transfer knowledge and information on ongoing efforts of developing AI technologies from the globe and the region. The sessions facilitated discussions related to expected ethical considerations and social/environmental issues on AI technology.

In between informative sessions, a participatory in-program survey was conducted to further sensitize the participants to the context of AI technology applications for climate action. Two open-ended questions welcomed the on-site live responses from the participants and the results were displayed on the screen for all (see Figure 4).

Facilitated by following questions, a roundtable discussion by Chile and Costa Rica representatives shared the ongoing efforts on digitalization and AI technology for climate:

- Could you tell us what motivated your government to design an artificial intelligence policy?
- What are the main components of this policy?
- What sort of incentives and what sort of safeguards does the policy include?
- What were the main challenges you encountered in designing this policy?
- To what extent does the policy integrate social, environmental and climate issues in developing and applying AI technologies?
- (Are you intending to reflect AI priorities into your new NDCs?)
- What would be your main advice to countries that would like to design their AI policy?

This mini exercise was particularly important to create a safe room for participants to freely share their viewpoints on AI technology for climate action and reflect on the means of AI technology. Together with the pre-program survey results, we observed consistency in interpreting 'AI technology' as somewhat positive and will bring advantages to their climate agenda. Few commented on job security and privacy related to AI technology.

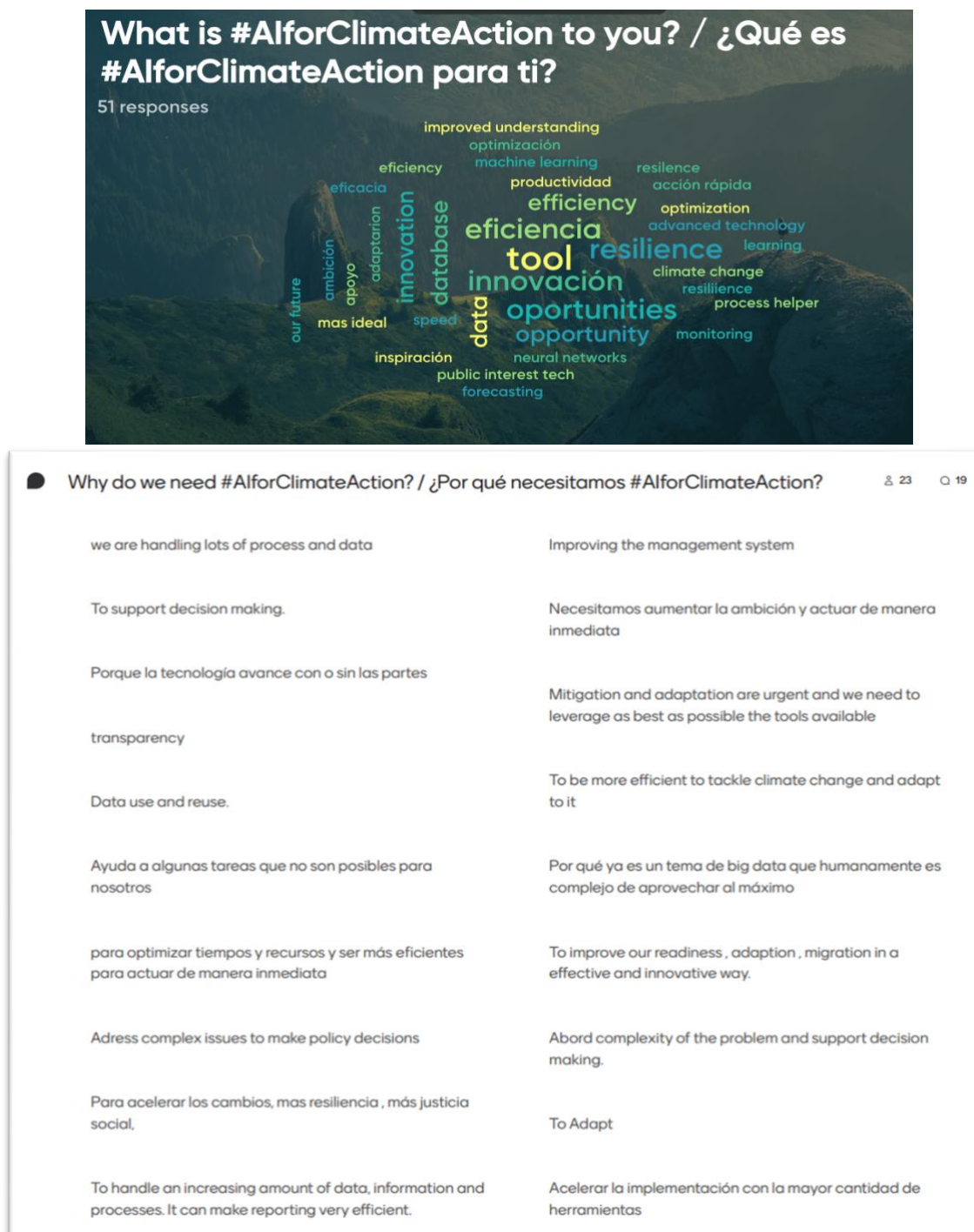


Figure 4 In-program survey results

Step 3. Facilitating and Engaging: In this step, a participatory session namely ‘Calling from Future – Policies and Networks’ was implemented to facilitate the brainstorming of potential actions that each participant can take to increase overall benefits of applying AI technology through CTCN TA future projects.

Workshop 1: Calling from Future – Policies

Before the workshop activities, the participants were exposed to all materials prepared in Step 1, featured in Figures 1,3, and 4. We engaged participants to the following sequence of participatory activities:

- a) Individual activity of identifying barriers;
- b) Group discussion on categorisation of barriers;
- c) Group selection on applicable AI technology.

A 15-minute-long individual activity was facilitated with guidance on naming all perceived barriers to applying AI technologies to their sector/climate projects. All answers were written on sticky notes (Figure 5).



Figure 5 Individual and Group Activity

Then, the participants were invited to categorize identified barriers by their types (i.e. Capacity building, Finance, Technology, Governance/Social Cultural) to the brainstorming board. Extra 30 minutes was allocated to invite NDEs to identify the most appropriate AI technology for the categorized barriers and challenges. AI technology types were presented in reference to WIPO's 2019 Technology Trends – Artificial Intelligence² (see Figure 6, top).

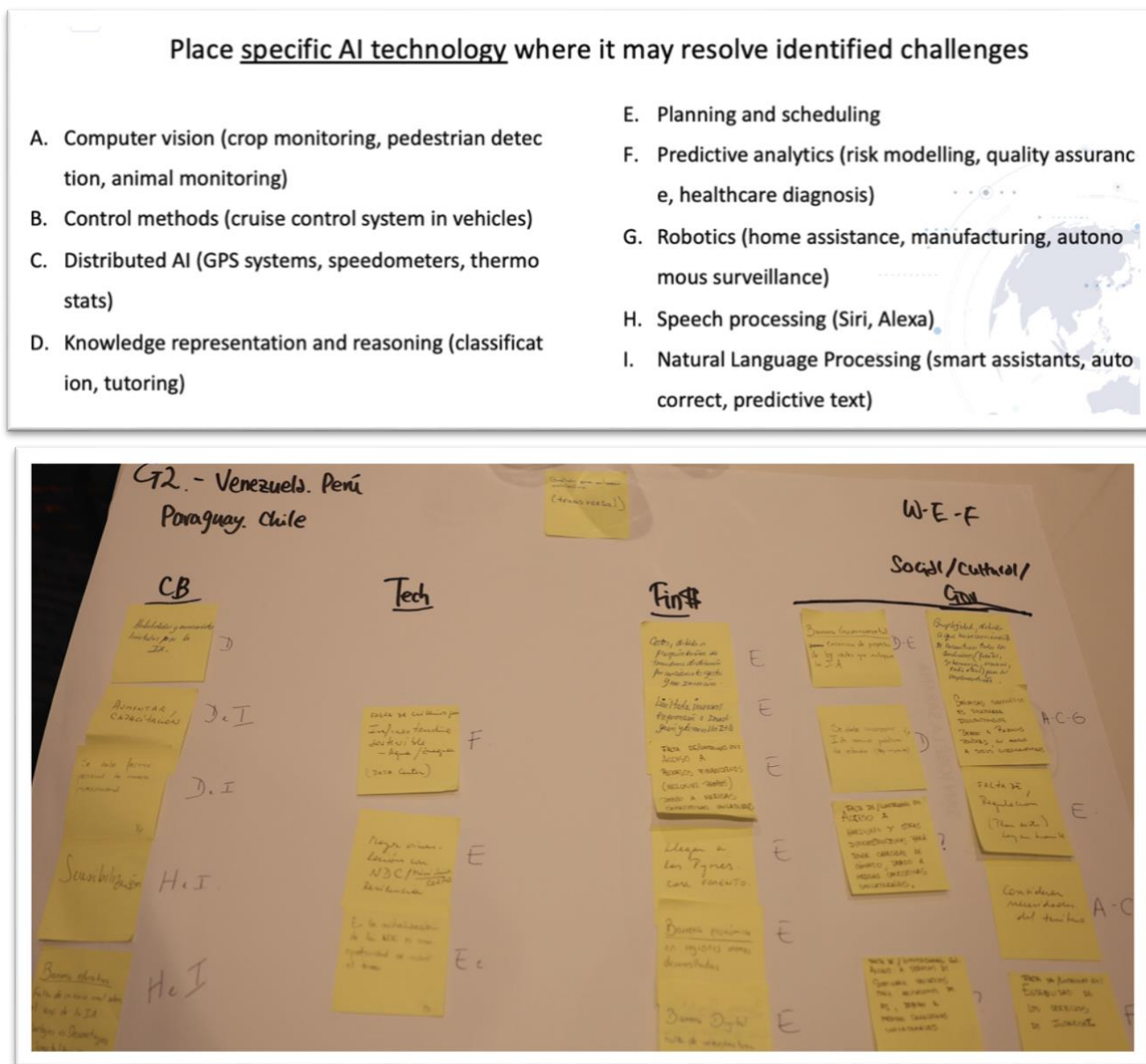


Figure 5 Idea Board with linkable AI technologies

This second sub-activity was a group discussion, allowing the exchange of barriers identified individually to the countries with similar sectoral priority and NDC status. CTCN LAC team joined in each group to facilitate the process. This group activity focused on

² <https://www.wipo.int/publications/en/details.jsp?id=4386>

increasing the understanding of which barrier requires policy, technological, capacity, finance related solutions and how available AI technology may increase the overall quality of the transformational process (see Figure 7).

Workshop 2: Calling from Future – Networks of AI technology

After Workshop 1, the participants were invited to the 'Networks of AI technology' workshop. This workshop consisted of three sequential participatory activities:

- a) Call for NDEs' participation in identifying national AI network;
- b) Voluntary networking with prospective network member with AI solution.

Using the Figure 2 results, we introduced the network member analysis results to call for NDEs' support in identifying national AI specialists who may join CTC Network membership. This included an introduction to the general procedure and criterion of network membership along with two time points suggested to welcome NDEs' submission of their recommendation via email.

One prospective network member from the region was invited for their presentation (Figure 7). The presentation triggered questions on AI technology specification, reach, and impact. This phase of the workshop allowed participants to be aware of available network members that CTCN can engage in matchmaking their needs for AI technology upon their request.



Figure 7 Prospective Network member

Step 5. Analysing: Thematic analyses of barriers discussed during the program resulted in the below bullet point. Overall, a **'conditional' medium intention to apply the AI technology application for climate action is observed among LAC regional NDEs** (see Annex IX for barrier idea boards). Key conditions NDEs expressed in adopting AI technology included;

- Clear internal procedure on applying AI technology for their sector priority;
- Social/cultural consensus on AI technology is reached;
- Staff and human capacity on the technology is matured.

When NDEs were asked to link the type of AI technologies illustrated in WIPO's report (see Figure 8) to the identified barriers (see Table 3), AI tech on knowledge representation and reasoning (i.e. classification, tutoring) was most frequently considered; demonstrating the **iconic AI TA theme/activity for the LAC region could be 'Establishment of Sector-specific digital knowledge product using AI technology'**.

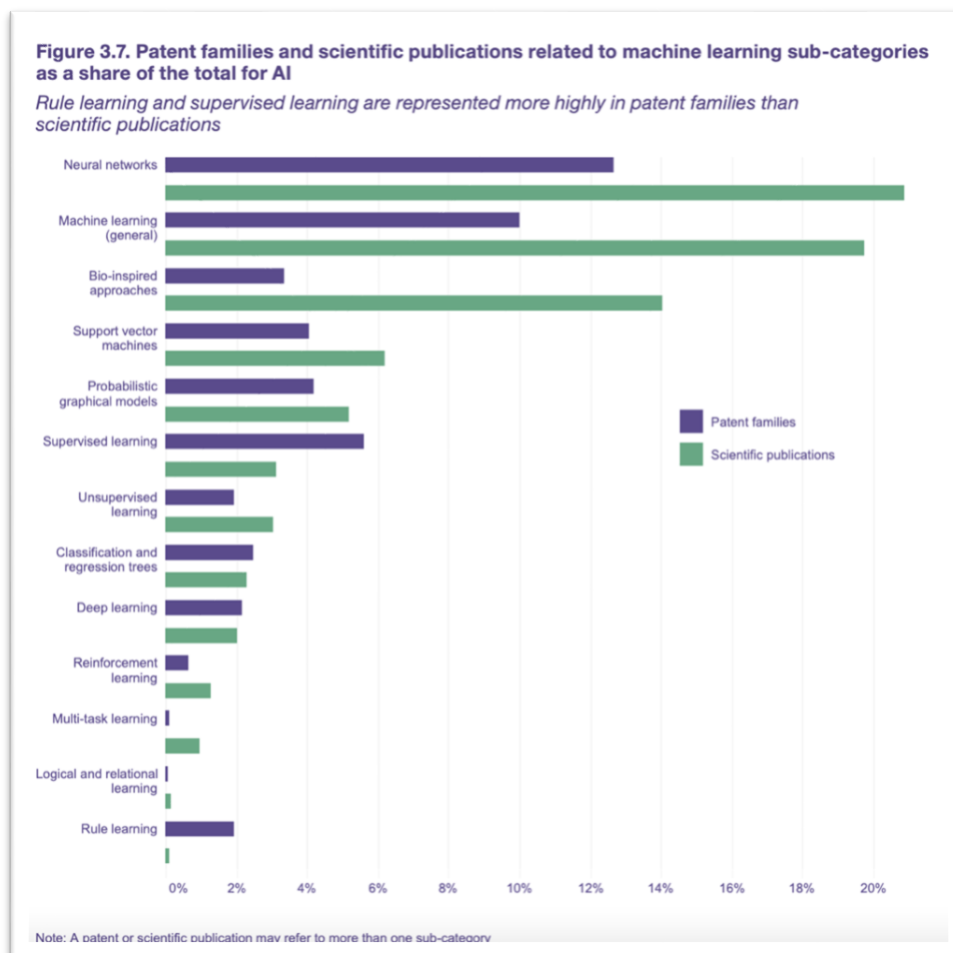


Figure 8 Types of AI technology (WIPO, 2019)

Table 3 AI solutions that could potentially address barriers identified

Technology/Barrier type	Capacity building	Finance	Technology	Social/Cultural/Governance
A - Computer vision (crop monitoring, pedestrian detection, animal monitoring)	Lack of data	Finance and infrastructure capacity		- Lack of confidence in the results - Cyber security is frequently violated due to reasons of governmental war
B - Control methods (cruise control system in vehicles)		- Finance and infrastructure capacity - Budget resources required for technology development	- Platform development	
C - Distributed AI (GPS systems, speedometers, thermostats)	Lack of mapping on energy consumption required		- Lack of institutional equipment and IT department budget - Monitoring equipment	- Cyber security is frequently violated due to reasons of governmental war

Technology/Barrier type	Capacity building	Finance	Technology	Social/Cultural/Governance
D - Knowledge representation and reasoning (classification, tutoring)	- Willingness to Change - Culture of resistant towards AI - Ability to complement existing application - General stakeholder buy-in - Undefined process - Technical capacity on AI - Seeing AI as a myth - Little knowledge even at the professional level - Limited ability for AI - Assisting training - Staff training - Lack of cohesive knowledge data on climate finance - Lack of projects linking climate technology and finance - Lack of youth programs incubating the next generation of AI experts	- Finance and infrastructure capacity - Budget resources required for technology development	- Governmental barrier, no real law that includes AI - Inclusion in State policy	- Unfamiliarity with AI - Adequate public awareness - No roadmap on engaging community to AI application

Technology/Barrier type	Capacity building	Finance	Technology	Social/Cultural/Governance
E - Planning and scheduling	- Ability to complement existing application - Undefined process	- Money to get there - Budget resources required for platform development - Perception of fraud leading to high cost and investment risk - Unilateral coercive measures, blocking access to financial resources - Economic barrier in developing countries - Digital barrier (lack of infrastructure and access to the internet) - Lack of engagement from private tech companies	- Capacity to manage and maintain the tool/application - Lack of institutional equipment and IT department budget - Platform development - No mention in NDC and resilience	- Connection issues - Institutional articulation - Public policy articulated and measurable with support from individuals - Lack of law (market regulation) - Lack of stability of internet services
F - Predictive analytics (risk modelling, quality assurance, healthcare diagnosis)	- Hydrological information needs with real-time availability in relation to early warning system - Lack of data - Access to quality environment data - Lack of local data	- Money to get there - Budget resources required for platform development	- Capacity to manage and maintain the tool/application - Absence of robust methodological framework available for training and validation of models - Lack of institutional equipment and IT department budget - Platform development - Lack of data centre - Absence of centralized system	- Lack of confidence in the results

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Technology/Barrier type	Capacity building	Finance	Technology	Social/Cultural/Governance
G - Robotics (home assistance, manufacturing, autonomous surveillance)	- Public awareness - Fear of job employment - Resistant to change		- Lack of institutional equipment and IT department budget	- Cyber security is frequently violated due to reasons of governmental war
H - Speech processing (Siri, Alexa)	- Technical capacity on AI - Sensitization - Lack of real criteria on the use of AI advantages and disadvantages			- Unfamiliarity with AI - Lack of confidence in the results
I - Natural Language Processing (smart assistants, autocorrect, predictive text)	- Technical capacity on AI - Assisting training - Sensitization - Staff training - Lack of real criteria on the use of AI advantages and disadvantages			

Actionable items for follow-up are listed below along with the reflection on the program for internal process improvement.

Actionable items for CTCN:

- TA team to follow up on potential TA projects with AI;
- Network specialist to follow up on the suggested national AI experts and invite them to the CTC Network membership.

Actionable items for NDEs:

- Consider drafting a concept note TA addressing barriers identified;
- Share details (i.e. email address, name, organization) of national digitalization/AI experts with CTCN (First round: End of this Year, Second round: End of July, 2025).

Annex I – Participant List

Country/Org	Name	Position
ANTIGUA & BARBUDA	LAKEEA ALLEN	NDE
BELIZE	JOHANNA NOBLE	NDE
BOLIVIA	ANGÉLICA PONCE	NDE
COLOMBIA	ALLISON DEL RIO	NDE
COSTA RICA	ADRIANA BONILLA	NDE
CHILE	XIMENA RUZ	NDE
CUBA	MARÍA LUISA ZAMORA	NDE
REPÚBLICA DOMINICANA	SOLHANLLE BONILLA	NDE
ECUADOR	JOHNNY MENA	NDE
EL SALVADOR	MANUEL ESCALANTE	NDE
GRENADA	KENTON FLETCHER	NDE
HAITÍ	YVES REMARAIS	NDE
JAMAICA	AJANI ALLEYNE	NDE
PANAMÁ	MEGAN CHEN	NDE
PARAGUAY	NORA PAEZ	NDE
PERU	ROGGER MORALES	NDE
ST. KIITS & NEVIS	CHERYL JEFFERS	NDE
SURINAME	RAFIQ ILAHI	NDE
URUGUAY	FERNANDO QUIÑONES	NDE
VENEZUELA	MEIMALIN MORENO	NDE
VENEZUELA	PEDRO BORGES	CTCN AB member
BASE	DANIEL MAGALLÓN PRIETO	Implementing partner
HR WALLINGFORD	AMY WILCOX	Implementing partner
CATIE	LEIDA MERCADO	Implementing partner
DEUMAN	RODRIGO VALENZUELA	Implementing partner
Green Energy Institute	SEUNGHEON SONG	Network member
U Energy	CHANGGON AHN	Network member
Climate Change AI	MARIA SANTOS	Resource person
Innova 10X	PRISCILA CHAVEZ	Resource person
Geolatina	MIGUEL IMBACH	Resource person

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RBLAC PNUD	ENRIQUE CRESPO	Resource person
C-Minds	CONSTANZA GOMEZ-MONT	Resource person
MICITT	MARLON ÁVALOS	Resource person
National Renewable Energy Laboratory (NREL)	BEN KROPOSKI	Resource person
UNIDO	HARUKA YOSHIDA	Resource person
SERVIR Central America Hub	ALEJANDRO SOLIS	Resource person
MINAE- Costa Rica	CARLOS CORDERO	
MINAE- Costa Rica	REBECA MADRIGAL	



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Annex II – Final agenda

CTCN

LATIN AMERICA AND THE CARIBBEAN NDE FORUM 2024, 1-2 OCTOBER

REGIONAL CAPACITY BUILDING PROGRAM ON AI4CLIMATE ACTION, 3-4 OCTOBER

10 years and beyond of Climate Technology Transfer

1-4 October, Crowne Plaza La Sabana, San José, Costa Rica, In-person

Background

NDE Forum

The Climate Technology Centre and Network (CTCN) is the implementation arm of the Climate Change Convention (UNFCCC) Technology Mechanism. For a decade, the CTCN has been promoting accelerated development and transfer of environmentally sound technologies for low-carbon and climate-resilient development at the request of developing countries. Implementing this mission, the CTCN has focused on the stimulation of technology cooperation and enhancement of the development and transfer of climate technologies to developing countries. Taking its mandate, CTCN has supported over 110 countries benefited from climate technology innovation, transfer, and knowledge sharing to date.

The CTCN provides technology solutions, capacity building and advice on policy, legal and regulatory frameworks tailored to the needs of individual countries. With the ongoing Programme of Work, the focus lies on achieving transformative impacts and scaling up through national innovation systems and digitalization across five key areas: Water-Energy-Food nexus, Buildings and Infrastructure, Sustainable Mobility, Energy Systems. As part of its mandate and as one of its activities it organizes a Regional Forum for the National Designated Entities from Latin America and the Caribbean countries on an annual basis. The objective of these forum is to share experiences and best practices from CTCN technical assistance in the region, strengthening collaborations and enhancing linkages with other mechanisms under the convention and create networking opportunities through showcasing innovative climate technologies that respond to country priorities and support them in meeting their Nationally Determined Contributions.

The UNFCCC Technology Mechanism is comprised of the CTCN as implementation arm and the Technology Executive Committee (TEC) as policy arm. The CTCN works together with the TEC in delivering on the [Technology Mechanism Joint Work Programme \(2023-2027\)](#). As part of its mandate, and as one of its activities, the CTCN organizes Regional Forums for the National Designated Entities (NDEs) on an annual basis, increasingly in close collaboration with the TEC.

Capacity Building Program on Artificial Intelligence

In June 2023, UNFCCC Technology Mechanism launched the [Technology Mechanism Initiative on Artificial Intelligence for Climate Action](#) (#AI4ClimateAction Initiative) to explore opportunities, challenges and risk of the use of artificial intelligence for climate action in developing countries, with a focus on least developed countries (LDCs) and small island developing States (SIDS). In April 2024, the CTCN Advisory Board and the TEC agreed on a [workplan for the #AI4ClimateAction Initiative for 2024-2027](#). As part of this workplan, the CTCN is undertaking a series of capacity-building activities for NDEs on the use of AI for climate change adaptation and mitigation actions.

Taking a holistic approach, identification of the role of AI in advancing climate action requires the engagement of individuals at all levels – from policymakers, technology solution holders, and citizens. To

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date, out of 35 National Determined Contributions (NDC) submitted in Latin America and the Caribbean region, 9 countries 4 mentioned digitalisation for endogenous capacity development in agriculture sector. Considering not a single country from LAC considered AI technology in their NDC, support of preliminary research and national governance to foster collaborative RD&D for AI technology transfer could be facilitated in this program. It is required for the region to engage in an in-depth discussion on AI technologies' advantages and disadvantages, and pathways to create regional AI networks (Annex I illustrate details of Network members with Digital Solutions).

Objectives of the Joint Program

The LAC NDE Forum 2024 will celebrate the 10th anniversary of the CTCN, reviewing experiences, good practices and lessons learned from the past decade and devise ways for further enhancing collaboration in future in line with regional, sub-regional and national priorities. **The key objectives of the Forum are:**

- Present the latest development of CTCN services to developing countries in the region and intra-regional sharing of experiences and best practices from technical assistance in LAC and innovations in climate technologies that are a priority for the region.
- Present the linkage between the CTCN support and National Determined Contributions (NDCs) and the Technology Needs Assessment (TNAs) / Technology Action Plans (TAPs).
- Develop and strengthen the regional National Designated Entities (NDEs) network and its relationship with other climate actors.
- Identify financial opportunities for climate technologies.

For the first time, the Forum is held in conjunction with a capacity-building programme on AI-powered climate solutions. The programme aims to share Every aspect of AI technology adoption for future TA and RD&D collaboration. **The key objectives of the capacity building program on AI4ClimateAction are:**

- Engage with actors in the AI4Climate Action;
- Understand the past, current, and future of AI Technology for 5 system transformation;
- Discuss on prioritizing AI technologies;
- Plan actions to engage private sector for the governance viability and stability.

Duration: The LAC NDE Forum will be held from 1-2 October 2024, followed by the AI Capacity-Building Programme from 3-4 October 2024.

Venue: Crowne Plaza La Sabana. Costado Norte Plaza La Sabana San José, Costa Rica.

Hosting organisations: The LAC NDE Forum and the AI Capacity-building Programme is being hosted by the CTCN in partnership with the [Ministry of Environment and Energy from Costa Rica](#) (MINAE).

Participants

- NDEs from Latin America and the Caribbean
 - CTCN AB members
 - Members of the TEC in LAC
 - UNFCCC, TEC and CTCN Secretariats
- Climate Technology Centre and Network

<http://www.ctc-n.org>

Day 3: AI Capacity-building Programme (Thursday, October 3)

Opening and Welcome	
Moderator: Marisela Ricardez, CTCN	
09:00~09:10	Opening Remarks <i>Ambrosio Yobanolo</i> TEC Member
09:10~09:20	Introduction to the programme <i>Jonathan Duwyn</i> CTCN OiC
09:20~09:30	Group photoshoot
Session 1: Scene-setting	
Moderator: Ramiro Salinas, CTCN	
09:30~9:40	Technology Mechanism #AI4ClimateAction Initiative <i>Maia Tskhvaradze</i> UNFCCC-TEC Secretariat
09:40~10:20	Keynote Speech: Opportunities, challenges and risks of using AI for climate action <i>Maria Joao Sousa</i> ED, Climate Change AI Q&A
10:20~10:40	Coffee break & Real-time survey with NDEs on views on AI4ClimateAction
Session 2: Introduction to Artificial Intelligence	
Moderator: Marisela Ricardez, CTCN	
10:40~11:10	From past to present, and future: History of AI <i>Junsung Bang</i> Ymatics
11:10~11:40	Understanding AI core concepts <i>Miguel Imbach</i> Geolatina Costa Rica
11:40~12:10	Digital Transformation in LAC <i>Enrique Crespo</i> Regional Digital Specialist-RBLAC PNUD
12:10~12:30	Q&A
Lunch break 90 minutes.	

Session 3: AI Ethics and Governance

Moderator: Pedro Borges, CTCN AB Member

14:00~14:10	Ethics for Smart Systems and Devices <i>Paola Cícero</i> <i>IFT- Mexico</i>
14:10~14:20	AI for Social Good in LAC <i>Constanza Gomez-Mont</i> <i>C-Minds</i>
14:20~14:30	AI for Ethics <i>Priscila Chaves</i> <i>Innova 10X</i>
14:30~14:50	Panel discussion
Coffee Break 10 minutes.	

Session 4: Overview of AI technology for the CTCN Five System Transformation Areas

Moderator: Jeawon Kim, CTCN

15:00~15:40	AI for Buildings & Infrastructure (Sustainable cities) <i>Ben Kroposki, Director - Power Systems Engineering Center</i> <i>National Renewable Energy Laboratory (NREL)</i> <i>Juan Yacopino</i> <i>CAPSA Digital Building Passport Platform</i>
15:40~16:20	AI for Energy Systems <i>Priya Donti</i> <i>Climate Change AI</i> <i>Seung Hun Song & Changgon Ahn</i> <i>Green Energy Institute & U Energy</i>
16:20~17:00	AI for Buildings & Infrastructure (Nature-Based Solutions) <i>Alejandro Solis</i> <i>NASA- SERVIR, CATIE</i> Remote Perception: AI for understanding the territory <i>Joaquin Salas</i> <i>Research Centre in Applied Science and Advance Technology, Instituto Politecnico Nacional Mexico</i>
17:00~17:10	Q&A session
17:10~17:20	Day Wrap up

Day 4: AI Capacity-building Programme (Friday, October 4)

Session 5: Overview of AI technology for the CTCN Five System Transformation Areas

Moderator: Ramiro Salinas, CTCN

09:00~09:20	AI for the Water-Energy-Food Nexus (Agriculture and Biodiversity) <i>Karlina Octaviana</i> <i>GIZ</i>
09:20~09:40	AI for Sustainable Mobility <i>Luis Felipe Quirama</i> <i>ACCESS Project, UNEP- Sustainable Mobility</i>
09:40~10:00	AI for Business and Industry <i>Haruka Yoshida</i> <i>UNIDO</i>
10:00~10:20	Q&A session

Coffee Break 10 minutes.

Session 6: Looking ahead – Enabling Policies for AI

Moderator: Jonathan Duwyn & Marisela Ricardez Garcia, CTCN

10:30~10:45	Alternatives in AI governance <i>Alejandro Pisanty</i> <i>National Autonomous University of Mexico, UNAM</i>
10:45~11:00	AI and sustainable development: USAID's Responsible Approach to AI <i>Stefanie Falconi</i> <i>USAID</i>
11:00~11:30	Roundtable on challenges and lessons learned on national policies for promoting AI AI National Policy of Costa Rica <i>Marlon Ávalos Elizondo</i> <i>Ministry of Science, Innovation, Technology and Telecommunications (MICITT), Costa Rica</i> AI National Policy of Chile <i>Sebastian Díaz, Technology Advisor</i> <i>Ministry of Science, Technology, Knowledge and Innovation, Chile</i>

Session 7: Calling from the Future - Policies and Network

Moderator: Jeawon Kim, CTCN

11:30~12:10	Brainstorming barriers to AI4Climate Action <i>All NDEs</i> 1) Individual activity: NDEs identify most attractive AI technological solutions that addresses national priorities 2) Group activity: NDEs brainstorm barriers to adopting most attractive AI technology solutions
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	Group NDEs based on activity 2-a, and map existing finance and policy solutions to identify potential gaps in addressing the barriers identified
12:10~12:45	Brainstorming of National AI Enabling Environment <i>All NDEs</i> a) Identify existing AI governance b) Mapping AI governance and policies
12:45~13:00	Youth entrepreneurship in action <i>Andres Felipe Bermudez Bermudez</i> <i>The Clean Wave Foundation, Costa Rica</i>
13:00~13:15	Closing <i>Jonathan Duwyn</i>
Lunch Break 75 minutes.	

Annex III – List of CTC Network members with AI specialities

Sector	Name of Network member	Country	Type of Organization	Application	Digital Technology Applied	CTCN Network URL	Company website URL
Water	Water in Sight AB	Sweden	Private sector organization	Hydro-meteorological observations in LDCs	Water and weather data monitoring	https://www.ctc-n.org/about-ctcn/network-members/water-sight-ab	https://www.waterinsight.se/
Energy Systems	Blockchain & Climate Institute	United Kingdom	Research and academic institution	Pilot projects range from disaster risk parametric insurance and peer-to-peer renewable energy trading to water trading and adaptation infrastructure procurement, etc. We are distinct from the other organisations in that BCI has unique experience in relevant capacity building, policy and legislation support, which enable us to provide one-stop-shop services for partner governments	Deployment of Big Data, GIS, remote sensing, machine learning and IoT	https://www.ctc-n.org/about-ctcn/network-members/blockchain-climate-institute	http://www.blockchainclimate.org
Building and Resilient Infrastructure	Meteosim, S.L.	Spain	Private sector organization	Improvement of numerical weather prediction results and climate change simulations by using machine learning and AI algorithms. Improve Air Quality forecasting for cities using remote sensing data.	Remote Sensing, AI, Machine Learning	https://www.ctc-n.org/network/network-members/meteosim-sl	http://www.meteosim.com
Building and Resilient Infrastructure	FUNDACIÓ EURECAT	Spain	Not for profit organisation	Climate resilience	Real-time decision support systems (DSS), AI	https://www.ctc-n.org/about-ctcn/network-members/fundacion-eurecat	https://eurecat.org/en/eurecat/#
Biodiversity	UK Centre for Ecology and Hydrology	United Kingdom	Research and academic institution	Automated monitoring of insects, Research on data science for natural environment	Monitoring, Big Data, AI, Machine Learning	https://www.ctc-n.org/about-ctcn/network-members/uk-centre-ecology-hydrology	https://www.ceh.ac.uk
Health	ARIA Technologies / SUEZ	France	Private sector organization	Computation of pollutant dispersion, meteorological analysis, wind, emission, and air quality modeling.	AI, Machine Learning, Satellite data monitoring	https://www.ctc-n.org/about-ctcn/network-members/aria-technologies	https://www.aria.fr
Early warning and Environmental assessment	Relief Applications	France	Private sector organization	multi-platform IT solutions	Big-data, disaster risk modelling	https://www.ctc-n.org/about-ctcn/network-members/relief-applications	https://reliefapplications.org/
Industry	Beanstalk Agtech Pty Ltd	Australia	Private sector organization	digital platform applications for local industry	Data analytics	https://www.ctc-n.org/about-ctcn/network-members/beanstalk-agtech-pty-ltd	https://www.beanstalkagtech.com/
Building and Resilient Infrastructure	Groupehuit	France	Private sector organization	Urban planning, disaster risk reduction	GIS/spatial planning	https://www.ctc-n.org/about-ctcn/network-members/groupehuit	https://groupehuit.com/
Business and Industry	Nature Preserve	Denmark	Private sector organization	Carbon footprint analysis platform	Blockchain	https://www.ctc-n.org/about-ctcn/network-members/nature-preserve-aps	https://www.naturepreserve.co/
Water	DHI Group	Denmark	Private sector organization	Hydrometeorology modeling, flood/drought risk modelling	GIS/spatial planning, real-time decision support system	https://www.ctc-n.org/about-ctcn/network-members/dhi	https://www.dhigroup.com/

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Cross-sectoral	Envisioning Labs	Canada	Private sector organization	Support R&D programmes	Design thinking of digital solutions	https://www.ctc-n.org/about-ctcn/network-members/envisioning-labs	https://www.envisioninglabs.com
Energy Systems	Siemens AG	Germany	Private sector organization	Smart energy system	AI and Machine Learning	https://www.ctc-n.org/about-ctcn/network-members/siemens-ag	https://new.siemens.com/global/en/products/energy/energy-automation-and-smart-grid/energy-business-advisory.html
Cross-sectoral	Satellite Applications Catapult Ltd	United Kingdom	Not for profit organisation	Early warning and Environmental assessment	Satellite remote sensing	https://www.ctc-n.org/about-ctcn/network-members/satellite-applications-catapult-ltd	https://sa.catapult.org.uk/
Business and Industry	OXCARBON SOLUTIONS LIMITED	Nigeria	Private sector organization	Carbon MRV	Data analytics	https://www.ctc-n.org/network-member/application/oxcarbon-solutions-limited	https://0xcarbon.co
Cross-sectoral	African Center for Technology Studies (ACTS)	Kenya	Research and academic institution	Cross-sectoral	AI and Machine Learning	https://www.ctc-n.org/network-member/application/african-centre-technology-studies	http://acts-net.org/
Early warning and Environmental assessment	Rupantaran Nepal	Nepal	Private sector organization	Disaster risk management	Early warning	https://www.ctc-n.org/network-member/application/rupantaran-nepal	
Cross-sectoral	Ghana Climate Innovation Centre	Ghana	Research and academic institution	Support startups and innovations	Design thinking of digital solutions	https://www.ctc-n.org/network-network-members/ghana-climate-innovation-centre	http://ghanacic.org
Water-Energy-Food Nexus	Institute of Water Resources Planning (IWRP)	Viet Nam	Public sector organisation	IWRP has been using AI for water, climate and ecosystem management, i.e. use of machine learning, remote sensing, large-scale modelling to improve flood simulation, structure operation in case of emergency, simulation of climate change and climate responses scenario	Machine Learning, Remote Sensing, Large-scale modelling to improve flood simulation	https://www.ctc-n.org/network-network-members/institute-water-resources-planning	http://iwarp.org.vn
Building and Resilient Infrastructure	Respirer Living Sciences Pvt. Ltd.	India	Private sector organization	Methane detection and air quality monitoring	Big-data, atmospheric modeling, Satellite data monitoring and event detection	https://www.ctc-n.org/about-ctcn/network-members/respirer-living-sciences-pvt-ltd	
Ocean	Centro de Investigaciones del Mar y la Atmósfera	Argentina	Research and academic institution	Climate modeling, numerical simulations and forecasting for ocean and atmosphere at different time scales	Improved weather forecasting, early warning	https://www.ctc-n.org/network-network-members/centro-de-investigaciones-del-mar-y-la-atmosfera	https://www.cima.fcen.uba.ar/
Early warning and Environmental assessment	ICEM Asia Consulting Pte. Ltd.	Singapore	Private sector organization	climate vulnerability assessment and adaptation, renewable energy, hydrometeorology, water governance, nature-based solutions, environmental economics, disaster risk reduction	GIS/spatial planning	https://www.ctc-n.org/about-ctcn/network-members/icem-asia-consulting-pte-ltd	https://icem.com.au/decision-support-systems/
Water	Aquaquest	Zambia	Private sector organization	Groundwater monitoring	Data monitoring and early warning	https://www.ctc-n.org/about-ctcn/network-members/aquaquest-limited	http://www.aquaquest.info
Water	Impact Water Solutions	South Africa	Private sector organization	Intelligent water management	GIS/spatial planning, real-time decision support system	https://www.ctc-n.org/about-ctcn/network-	https://water-solutions.co.za/

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						members/impact-water-solutions	
Water	Water Sprint	Pakistan	Private sector organization	Smart water and agriculture services	GIS/spatial planning, real-time decision support system	https://www.ctc-n.org/about-ctcn/network-members/watersprint-limited	https://watersprint.io/

Gr3 - Jamaica. Ecuador.
Cub. Surinam

F CB

Local data
Lack of Data
Lack of Information
- Performance
- Distribution
- Data

Lech

Climate model
for reducing
emissions
Climate change
as
Energy use in
built process

Fin#

Large funding/
business de
velopment
bank

Overview of
existing
Climate finance

Energy system
(+ RT)

Social/Cultural/
Gov

Additional strategy
- Dependence
on technology
- Market
- Lack of government
support
- Incentives
and policies
- Lack of laws/regulation
- Secondary RT &
regulation

D

Access
to
Financing

F

Training
a farmers

Infrastructure
physical and
technological

Education
Schools

Underproducts
in ICT

[illegible]