

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

Summary Note

AI4ClimateAction

Date & Venue: 29th-30th August 2024, Nairobi, Kenya

Partnered organization: UNFCCC TEC, GIZ

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:

- a. 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;
- b. Support capacity-building efforts in developing countries to leverage emerging digital technologies and devise locally led solutions harnessing AI;
- c. 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 Africa program, 44 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: Applying 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	10 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	Brainstorming workshop on barriers	Identification of perceived barriers and challenges of adopting AI technology for climate action
		Brainstorming prospective local Network members	Identification of key resource person for national collaboration for AI-tech-led TA project ideation
4. Engaging		Networking with members with AI techs	Introduction to prospective Network members with AI solutions from the region
		Site visit	Introduction to the Green Data Center
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, 5 countries¹ expressed their national plan to apply Artificial Intelligence-related technologies for mitigation and adaptation (see Figure 1).

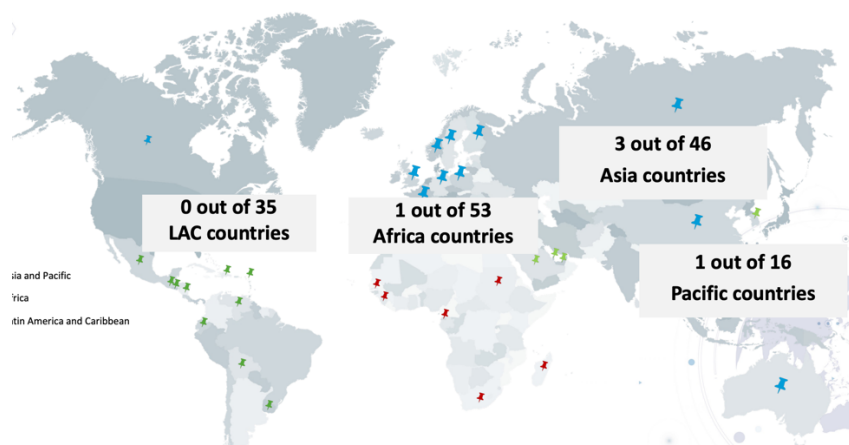


Figure 1 Global status - NDCs and AI technology

Specific to this region, Côte d'Ivoire reported climate projects and action plans will consider their presidential Initiative for Artificial Intelligence and Computing. Of 53 submitted NDCs from African countries, 7 countries² had a brief plan on digitalisation in agriculture (i.e.

¹ Cambodia, UAE, Viet Nam, PNG, Côte d'Ivoire

² Cabo Verde, Côte d'Ivoire, Egypt, Mauritius, South Sudan, Tunisia, Uganda

South Sudan), water and wastewater management (i.e. Uganda), energy (i.e. Egypt), buildings and infrastructure (i.e. Mauritius), business and industry (i.e. Tunisia, Cabo Verde for fishery mainly) sectoral transformation. 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 classify 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 prospective Network members from the region (i.e. Geviton, YNA Kenya, STAMP CLEANTECH LIMITED) to voluntarily join a walk-in networking opportunity with NDEs.



Figure 2 CTC Network with specialties in AI

A week before the program, confirmed NDEs (N=42) 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 French-speaking African countries revealed perceived digitalisation as a *tool* to 'obtain information/data', 'increase productivity/speed', and 'strengthen connectivity/transaction'. Association to the 'AI technology' informed the region's expectation of acquiring tangible products/services 'machine', 'robot', 'electricity', and 'computers' as part of adopting AI technology for climate action.

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

East & South Africa

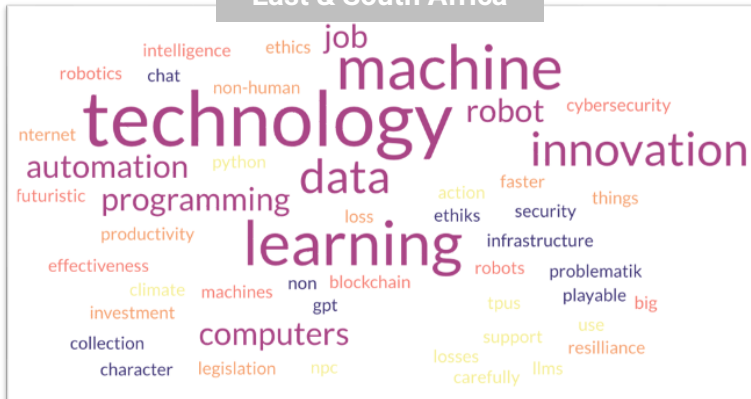


West Africa



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

East & South Africa



West Africa



Figure 3 FAT test results

Of all system transformation sectors, NDEs considered 'Water-Energy-Food nexus' (n=22) as the most urgent field to apply AI technology, followed by 'Energy Systems' and 'Business and Industry' (n=8, each respectively), 'Buildings and Infrastructure' (n=2), and 'Sustainable Mobility' (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, 9 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

Sub-region	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
English speaking	1	Botswana, Mauritius, Zambia, Namibia, Mozambique, Ethiopia	Water-Energy-Food Nexus	Strongly agree	No (Yes -Mauritius only)
	2	Sudan, Sierra Leone, Tanzania, Liberia	Water-Energy-Food Nexus	Agree	No
	3	Senegal, Seychelles, Gambia, Algeria, Ghana	Energy System	Strongly Agree/agree mixed	No
	4	Uganda, Eswatini, South Sudan	Business and Industry	Strongly agree	No
	5	Nigeria, Lesotho	Business and Industry	Agree for Nigeria, Disagree for Lesotho	No
	6	Egypt, South Africa	Buildings and Infrastructure	Agree	Yes for Egypt, No for SA
French speaking	1	RCA (CAR), TCHAD, Burundi TUNISIE, Guinée République, Démocratique du Congo, CAMEROUN, Burkina Faso, Djibouti, Guinea-bissau, Côte d'Ivoire	Water-Energy-Food Nexus	Strongly agreed/agreed mixed	No (Yes - Tunisia and Côte d'Ivoire)
	2	Algérie, COMORES, Togo	Energy System	Strongly agreed	No
	3	Guinea Ecuatorial, Gabon, Congo	Business and Industry	Strongly agreed/agreed mixed	No

*Note. Côte d'Ivoire assigned to Group 1, although indicated Sustainable Mobility as the most priority sector

Step 2. Sensitizing: The key to the second step is familiarising the audiences with the context of AI applications. We coordinated 10 lecture presentations to transfer knowledge and information on ongoing efforts of developing AI technologies from the region. The sessions facilitated discussions on the expected social impact and ethical standards of 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). A roundtable discussion further exploring the means to each response was facilitated, allowing participating NDEs to share personal reflections on AI technology.

This mini exercise was particularly important to create a safe room for participants to freely assert their perceived benefits and challenges towards applying AI technology for climate action. Together with the pre-program survey results, we observed similarity in interpreting 'AI technology' as positive and will bring advantages to their climate agenda. Few commented on job security, privacy, and ethical consideration related to AI technology.

What is #AlforClimateAction to you? Qu'est-ce que l'#IA pour l'Action Climatique pour vous?

90 responses



Why do we need #AlforClimateAction? Pourquoi avons-nous besoin de l'#IA pour l'Action Climatique?

39 responses



Figure 4 In-program survey results

Step 3. Facilitating and Engaging: In this step, three participatory sessions namely ‘Calling from Future – Policies’, ‘Networks of AI technology’, and ‘Site visit’ were implemented to facilitate the brainstorming of potential actions that each participant can take to increase the 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;

A 25-minute-long individual activity was facilitated with guidance on naming all perceived barriers in applying AI technologies to their sector/climate projects. All answers were written on sticky notes (see Figure 5).



Figure 5 Individual Activity

Then, the participants were invited to categorise identified barriers by their types (i.e. Capacity building, Policy, Governance) to the brainstorming board (Figure 6). 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 Africa team joined in each group to facilitate the process. This group activity focused on increasing the understanding of which barrier requires policy, technological, capacity, finance related solutions (see Figure 7).



Figure 6 Group Activity

Upon completing the workshop, all participants were invited to sit on a bilateral with CTCN for AI-driven TA project ideation.

Workshop 2: Networks of AI technology

On the first and the second day of the program, the participants were invited to the 'Networks of AI technology' workshop. This workshop consisted of three sequential participatory activities.

- a) Voluntary networking with Network members with AI solutions;
- b) Identification of existing national AI network via google search.

Based on the network member analysis results, two prominent Network members were invited to each program to showcase their AI technologies for 20 minutes (Figure 7). Three Network members were selected to inform the participants of available network members that CTCN can support in matchmaking their needs for AI technology, upon their request. Their walk-in networking opportunity with NDEs was continued over coffee breaks.



Figure 7 Pre-arranged networking session

After networking sessions, we introduced the current status of CTC Network membership with AI specialties using Figure 2 results. Then, the participants were asked to search their national AI technology experts online for 10 minutes. Few NDEs expressed the necessity to consult with their colleagues to share the list of prospective national Network members whereas other NDEs expressed their willingness to share the list immediately.

Lastly, the participatory session was completed with a site visit to the PAIX Green Data Center³. The participating NDEs were introduced to the private company-owned facility established with external funding, featuring Kenya's largest data storing and processing infrastructure. The PAIX team introduced their distribution (i.e. ongoing projects under development to link data infrastructure across the region) and placement (i.e. location of the data centre is close to national banks, public facilities – Sports club, and city council) strategies as well as communicated the approximate amount of investment each country should attract in establishing a stable and consistent structural base to lead the smooth transition towards AI technology. The experience was expected to inform the scale of resources (i.e. Human, Infra) needed and the necessity to plan long-term vision in applying AI technology (see Figure 8).



Figure 8 Site Visit – Green Data Center

Step 5. Analysing: Thematic analyses of barriers discussed during the program resulted in the below bullet point. Overall, sub-regional differences were observed in approaches to take forward to benefit from AI technology adoption. For example, English-speaking African countries seek global cases of applying AI technologies whereas French-speaking African countries seek sub-regional cases. In general, **low-medium intention to apply AI technology**

³ <https://paix.io/locations/paix-kenya>

application for climate action is observed among African regional NDEs. Simply, the perceived social benefit of adopting AI technologies is visible to 'try out' by overcoming individual and multifaceted barriers (see Annex IX for barrier idea boards). Prospective organisations NDEs nominated to strengthen national and regional AI networks are to be updated in an Excel sheet. Actionable items for follow-up are listed below along with the reflection on the program for internal process improvement.

Barriers

[People capacity]

- **Macro level - Policy**
 - Political will to advance the agenda
 - Restriction on technology transfer due to product rights
- **Meso- and Micro- levels - Social/Cultural**
 - Number of experts/AI specialists
 - Consensus on AI applications, hindering the transition
 - Low political incentive and diplomacy
 - Too simple/complicated decision-making process
 - Lack of community awareness
 - Fear of over-dependence on technology
 - Curriculum gap – Lack of AI subjects from schools to higher education to overcome the limited digital literacy
 - Culture of working in silos
 - No ethical standards

[Technology capacity]

- **Macro level - Policy**
 - Limited mention of digitalization in the existing NDC
 - Absence of institutional/regulatory framework on advanced techs
 - Stagnant and slow legislative process & law on digital innovation
 - Limited internal guidelines ensuring transparent and easy data-sharing process
 - Absence of data security safeguards
- **Meso- and Micro- levels**
 - Low internet connectivity
 - Limited reach due to lack of network
 - Lack of specialised buildings and equipment for AI
 - Limited infrastructure gathering high-quality data
 - Limited historical data
 - Integration issue

[Finance capacity]

- Lack of support
- Poor economies
- No support services
- Lack of identifiable benefits to convince the investment

TAs

During the program, 8 verbal requests on AI TAs were collected. **The iconic AI TA theme/activity for the Africa region could be 'Establishment of Digitalization Roadmap' and/or 'Establishment of National System of Innovation on Digitalization – Focusing on education, cultural, and social shift'.**

Actionable items for CTCN:

- TA team to follow up on potential TA projects with AI
- Network specialist to follow up on the nominated national AI experts and invite them to the CTC Network member

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
Uganda	Fred Onduri	Machulu	CTCN AB Chair
Egypt	Lydia	Elewa	CTCN AB Member and NDE
Nigeria	Halima Bawa	Bwari	CTCN AB Member
AGN	Omedi	Moses Jura	
UNEP	Rose	Mwebaza	
UNFCCC Secretariat	Torabiparizi	Sousan	
DRC	Motty	Monique	TEC Member
Algeria	Abdelfettah	MESRANE	NDE
Benin	Aminou Raphiou	Adissa	NDE
Botswana	Penny	Lesolle	NDE
Burkina Faso	Pamoussa	Ouedraogo	NDE
Burundi	Astere	Nindamutsa	NDE
Cameroon	Themothe	Kagonbe	NDE
Central Africa	Charlemagne Polycarpe	Mandayen	NDE
Chad	Mahamat	Hassane Idriss	NDE
Comoros	HAMADA	Athoumani	NDE representative
Congo	Claude	Francois	NDE
Côte d'Ivoire	Philippe	KUMASSI	NDE
Djibouti	Idriss Ismael	Nour	NDE
DRC	Bernard	NDAYE NKANKA	NDE
DRC	Monique	Motty	TEC
Equatorial Guinea	Santiago Francisco	ENGONGA OSONO	NDE
Eswatini	Bafana N.	Simelane	NDE
Ethiopia	Yamelakesira Tamene	Bekele	NDE
Gabon	Christ Landry	BOUEGNY	NDE representative
Ghana	Joseph Amankwa	Baffoe	NDE
Guinea	Adama Lewo	Diakite	NDE
Guinea Bissau	Guilherme	DA COSTA	NDE
Lesotho	EN	Takalimane Joshua	NDE
Liberia	Christopher B.	Kabah	NDE
Malawi	Lyson	Kampira	NDE
Mali	Mr. Sekou N'Faly	Sissoko	NDE
Mauritania	Sidi Mohamed	Ould El Wavi	NDE
Mauritius	Sarita	MEEHEELAUL	NDE

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Mozambique	Antonio Jorge Raul	Uaissone	NDE
Namibia	Jonathan Mutau	Kamwi	NDE
Nigeria	Chukwuemeka	Okebugwu	NDE
Senegal	El Hadji	DIOP	NDE
Seychelles	George	Uzice	NDE representative
Sierra Leone	Adama	Sillah	NDE
South Africa	Kogilam	Govender	NDE
South Sudan	David Batali Oliver	Samson	NDE
Sudan	Huyam Ahmed	Abdalla	NDE
Tanzania	Gerald Majella	Kafuku	NDE
Togo	Kossiawavi Akpédjé	LOTSI	NDE representative
Tunisia	Bouzghaya	Fethi	NDE
Uganda	Samuel	Okodi	NDE
Zambia	Chilambwe	Mwansa	NDE
Zimbabwe	Munashe	Mukonoweshuro	NDE
Gambia	Sambou	Kinteh	NDE
Data Science Africa	Ciira	Maina	Professor
African Centre for Technology Studies	Dr. Winston	Ojenge	Head of Digital Economy Programme
United Nations University Vice Rectorate in Europe (UNU-ViE)	Dr. Erick	Tambo	Academic Officer, Head of Pan African Cooperation and Educational Technologies (PACET)
UNU Macau	Paula Hidalgo-	Sanchis	Senior consultant
Microsoft AI for Good Research Lab	Dr. Girmaw Abebe	Tadesse	Principal Research Scientist and Manager
GIZ	Bjorn-Sören	Gigler	Head of Data Economy Program, Digital Transformation Cluster
	Benard	Mugendi	
	Kelly	Matayian	
	Meghan	Kathure	
	Edith	Wanjiru	
	Jim	Simani	
	Giulia	MENGHI	
Ministry of Communications and Information Technology	Dr. Hoda Anis	Baraka	Advisor to Minister for AI & Technology Talents Development
European Commission	Juha	Heikkilä	Adviser for Artificial Intelligence, Directorate-General for Communications Networks, Content & Technology
Green Digital Innovation Hub	Winston	Ojenge	

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Annex II – Final agenda



UN CTCN Joint Program: 2024 Africa NDE Forum and Capacity Building on AI4ClimateAction

Past and future of 10 years of Climate Technology Transfer
Nairobi, Kenya – 27-30 August 2024

Background

For a decade, the Climate Technology Centre and Network (CTCN) promoted accelerated transfer of environmentally sound technologies for low carbon and climate resilient development at the request of developing countries. Implementing this mission, 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 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.

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

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 date, only seven African countries¹ mentioned digitalization as a climate technology solution for mitigation and adaptation. For a technology to be best utilised as a solution for system transformation, the design and implementation of national plans supporting international cooperation in research and development are required. In this regard, this program will foster in-depth discussion on AI technologies' advantages and disadvantages, and pathways to create regional AI networks.

Objectives

The last Africa NDE Forum delivered in Nairobi, Kenya in 2023 successfully introduced CTCN's 3rd Programme of Work (PoW) 2023-2027. Key Technical Assistance projects aimed to enhance transformational impact and scale across its core service areas through two proven technology enablers and five system transformation areas were shared, supporting our NDEs to grasp means to best collaborate with CTCN and other stakeholders in this ecosystem for the next era of technology mechanism. With the intention of celebrating 10th anniversary of CTCN and building gateways for the

¹ Cabo Verde, Côte d'Ivoire, Egypt, Mauritius, South Sudan, Tunisia, Uganda
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next decade of CTCN, this year's Africa NDE Forum will be delivered in conjunction with the capacity-building program on AI technologies.

By inviting key stakeholders of the UNFCCC Mechanism to gather 10 years of lessons identified, CTCN will facilitate discussion on novel ways to improve our collaboration in the future, tailoring to the regional needs and wants.

This Joint Program will provide:

- 1) Review of CTCN 2014-2024 activities and collaborations undertaken with countries and other key stakeholders in this ecosystem.
- 2) Capacity Building on AI technology to support the creation of co-benefits national and global climate change action.

Duration/Format: This Joint Program will take place for a total of 4 days, with a 2-day Forum and a 2-day capacity building program delivered for the African NDEs.

Participants

- NDEs from Africa
- Selected CTCN AB members and the Annex I Climate Change Focal points
- Members of the TEC
- Country representatives, CTC Network members and other stakeholders
- UNFCCC, TEC and CTCN Secretariats
- Selected Network members and other stakeholders.

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Day 3 (Thursday, 29th August): Capacity Building Program on AI4Climate Action

Opening Ceremony and Introduction to the program

Moderator: Valentin Rudloff

09:00~09:10	Opening Remarks (virtual) Golestan (Sally) Radwan, Chief Digital officer UNEP
09:10~09:20	Agenda of the Capacity Building Program on AI4Climate Action Valentin Rudloff Climate Technology Specialist, CTCN

Session 1: Introduction to AI4Climate Action

Moderator: Valentin Rudloff

09:20~09:35	UNFCCC Technology Mechanism Initiative on AI for Climate Action Monique Motty, TEC Member DRC
09:35~10:30	Interactive session: Mapping ideas about AI <i>All NDEs</i> A set of questions related to AI will be asked and NDEs will be invited to write answers through a mobile application / on post-it notes to map existing knowledge, reflections and questions on AI. This will be linked to the survey that was circulated before the event.

Coffee break 15 minutes

10:45~11:05	Debunking AI: Introduction to data, technology and infrastructure Prof Ciira Maina Data Science Africa
11:05~11:25	AI in a developing country context: Challenges and Opportunities Dr. Winston Ojenge Head of Digital Economy Programme, African Centre for Technology Studies (ACTS)
11:25~11:45	AI for Climate Action in an African Context (Virtual) Rendani Mbuva Co-founder, AfriClimate AI
11:45~12:00	Q&A

Lunch break (90 minutes)

Session 2: Overview on AI Technologies and Enablers for Climate Action

Moderator: Valentin Rudloff

13:30~14:00	Applying AI technologies for climate change mitigation Dr. Erick Tambo Academic Officer, Head of Pan African Cooperation and Educational Technologies (PACET), United Nations University Vice Rectorate in Europe (UNU-ViE) Paula Hidalgo-Sanchis (Virtual) Senior consultant, UNU Macau
14:00~14:30	Applying AI technologies for climate change adaptation Dr. Girmaw Abebe Tadesse Principal Research Scientist and Manager, Microsoft AI for Good Research Lab

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14:30~15:00	Enabling AI technologies: Data and infrastructure (Virtual) Bjorn-Sören Gigler Head of Data Economy Program, Digital Transformation Cluster, GIZ
15:00~15:15	Q&A session
Coffee break (15 min)	

Session 3: Ideation and Networking on AI technology projects

Moderator: CTCN

15:30~17:00	Ideation and Networking on projects for AI4Climate Action <i>All NDEs</i>
	Ideation Desks Discussions with CTCN and TEC staff
	Networking Desks Discussions with Network members (Annex I)/Private sector with AI solutions

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Day 4 (Friday, 30th August): Capacity Building Program on AI4Climate Action

Session 4: AI4Climate Action – Enabling Environment for System Transformation	
Moderator: Valentin Rudloff	
09:00~09:30	Presentation of National Plan on AI: Egypt's National Artificial Intelligence Strategy (Virtual) Dr. Hoda Anis Baraka Advisor to Minister for AI & Technology Talents Development, Egypt Ministry of Communications and Information Technology
09:30~10:00	Presentation of National Plan on AI: European Union AI Act (Virtual) Juha Heikkilä Advisor for Artificial Intelligence, Directorate-General for Communications Networks, Content & Technology, European Commission
10:00~10:30	Capacity Building and Training on AI Dr. Winston Ojenge Green Digital Innovation Hub
10:30~10:45	Q&A session
Coffee break (15 min)	
Session 5: Facilitating #AI4ClimateAction Initiative	
Moderator: CTCN	
11:00~12:00	Brainstorming of National AI enabling environment <i>All NDEs</i> - Identify existing best practices to AI enabling environment - Mapping AI enabling environment in terms of governance, policies, capacity building, etc. - Brainstorming on projects to support AI enabling environment
Lunch break (60 min)	
Session 6: Site Visit to a Green Data Center	
Host: GIZ	
13:00~13:30	Introduction to GIZ Digital Investment Facility Kelly Matayian Digital Infrastructure Technical Advisor, GIZ
Transport (60 min)	
14:30~17:30	Site Visit: Green Data Center Pan African IX Data Centres Kenya (PAIX) Britam Tower, Hospital Rd, Nairobi, Kenya
Transport (60 min)	
END	

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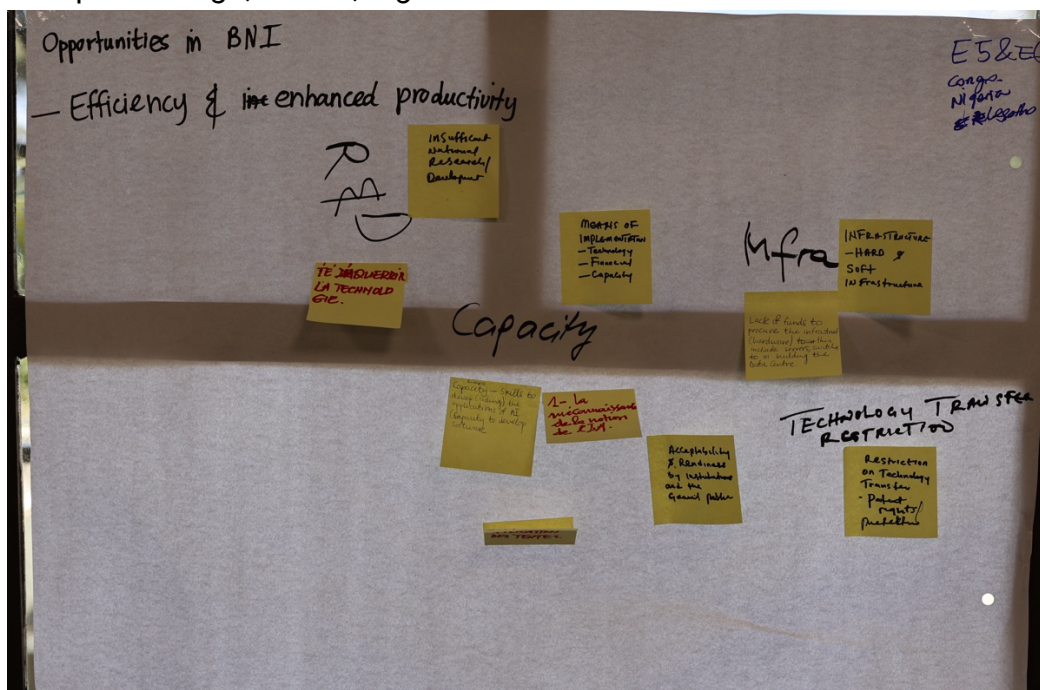
						members/impact-water-solutions	
Water	Water Sprint	Pakistan	Private sector organization	Smart water and agriculture services	GIS/spatial planning, real-time decision support system	https://www.ctc-n.org/about-ctcn/network-members/watersprint-limited	https://watersprint.io/

Annex IX – Idea Boards

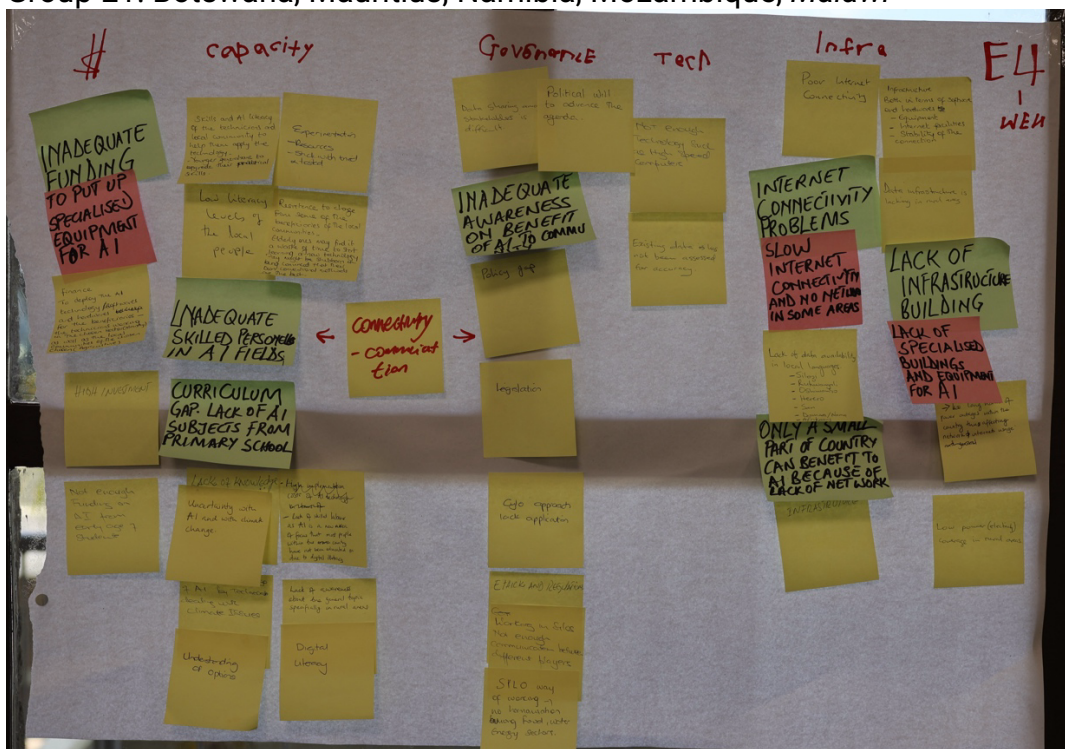
Group F1: RCA, TCHAD, Burundi, Tunisie, Guinée Rpublic, DRC, Cameroun, BF, Djibouti, Guinea-bissau, Cote d'Ivoire



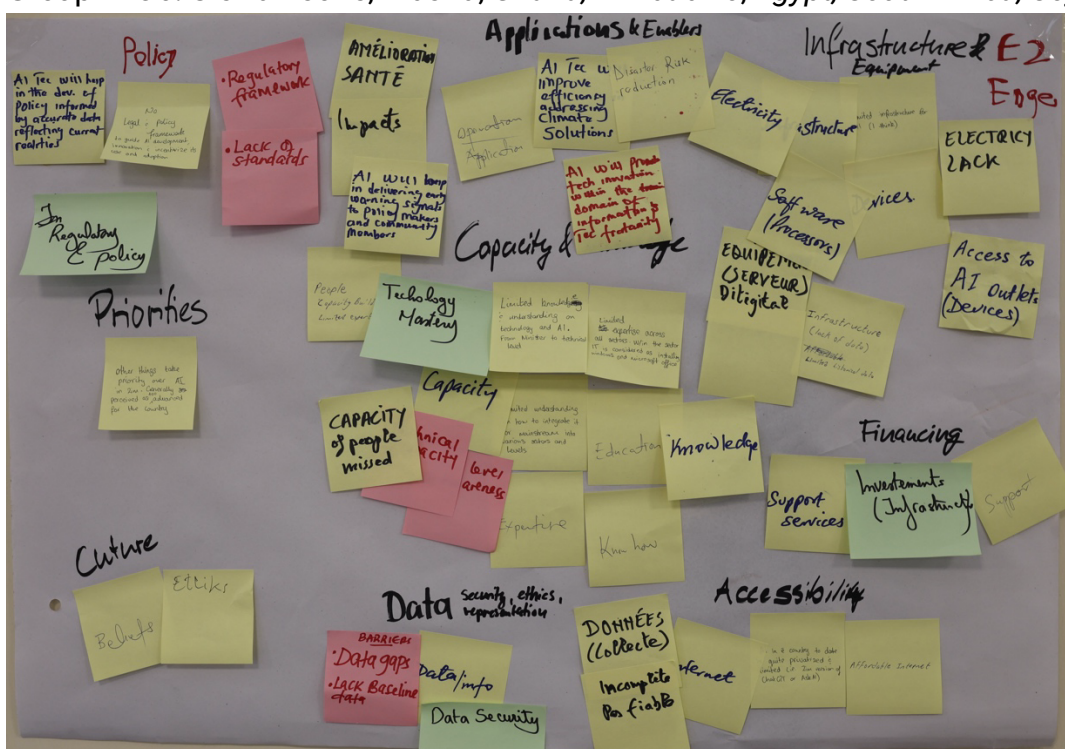
Group F2: Congo, Gabon, Nigeria



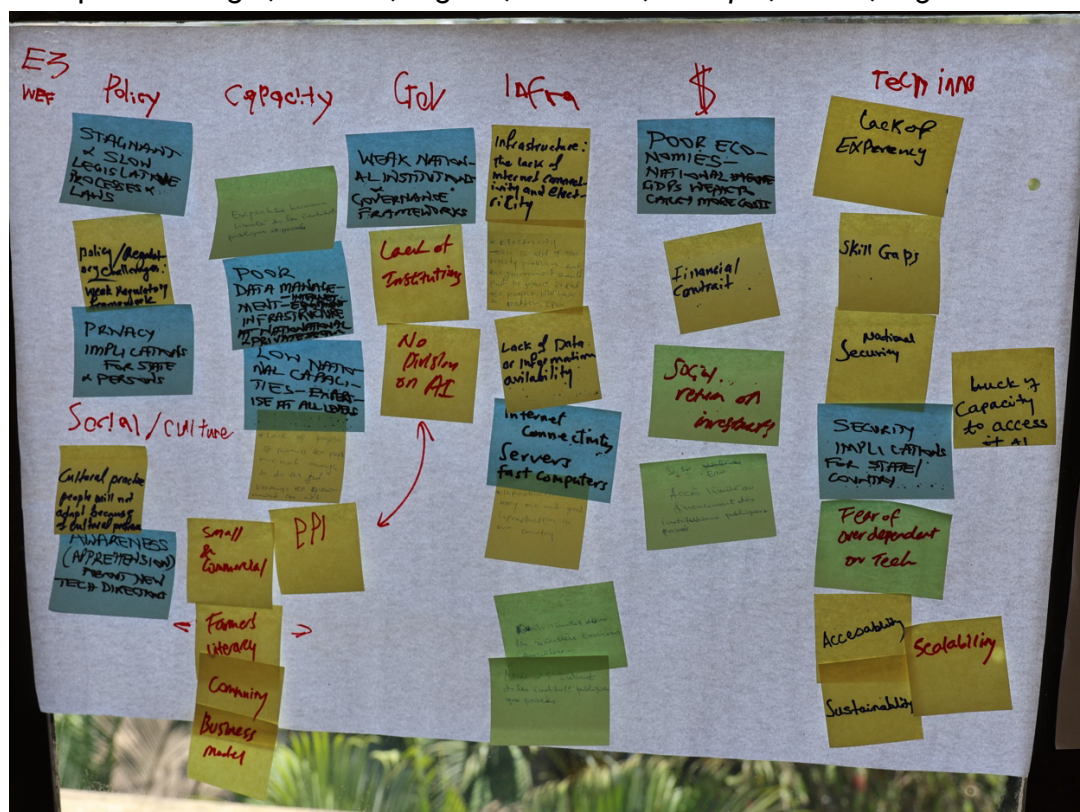
Group E1: Botswana, Mauritius, Namibia, Mozambique, *Malawi*



Group E2&6: Sierra Leone, Liberia, *Ghana, Zimbabwe, Egypt, South Africa, Seychelles*



Group E3: Senegal, Zambia, Algeria, Tanzania, Ethiopia, Sudan, Nigeria



Group E4: Uganda, South Sudan, Eswatini

