



Technology Executive Committee

06 April 2021

Twenty-second meeting

Virtual meeting, 20-23 April and 26 April 2021 (TEC-CTCN Joint session)

Summary report of Technology Day thematic session on Innovative approaches to deploy, disseminate and scale-up technologies and solution for climate smart agriculture and concept of the thematic session on Innovative approaches to strengthening coastal and ocean adaptation

Background note

I. Introduction

A. Background

1. As per activity 3 of the thematic area Innovation of its workplan for 2019–2022, and in pursuance to decision 14/CP.25, the TEC is to promote innovative approaches, including through the development of scalable, business cases, local community participation, gender and cultural-sensitive approaches, to deploy, disseminate and scale up adaptation technologies. The deliverable of this activity for 2020 was the organisation of an in-session Technology Day to discuss innovative approaches for adaptation technologies, including the co-benefits of such approaches. For 2021, a policy brief and recommendations on this topic will be developed.
2. At TEC 20 the task force on innovation presented a proposal on the organization of the in-session Technology Day to be held at in conjunction with SB52, including a draft high-level concept note and agenda for the event. The TEC requested the task force to revise the concept note taking into account the comments made by the TEC at the meeting, and to initiate a process to solicit interests from experts and organizations to engage in the event. The TEC also requested the secretariat to prepare a summary record of the discussions held at the Technology Day and to make it available to all TEC members after the event.
3. At the same meeting, the TEC also discussed the implications of the decision of the UNFCCC Bureau to postpone SB 52. It expressed its preference to hold the Technology Day as an in-person event at the SB52 session to ensure interactive dialogue and engagement of various relevant stakeholders, which cannot be done in an effective manner in virtual setting.¹
4. However due to continuation of global COVID-19 pandemic, the further postponement of SB52 to 2021, and the difficulty to hold in-person meetings, the taskforce on innovation took a pragmatic approach and subsequently agreed to organize a Technology Day as a series of events in 2020 and 2021, instead of one-day event, covering various themes related to adaptation technologies. The launch of the Technology Day was planned to take place during the Climate Dialogues (23 November–4 December 2020) and the series of events would culminate in an in-person event in conjunction with an SB session in 2021.
5. The Technology Day was officially launched during the Climate Dialogues on 30 November 2020 by the Executive Secretary of the UNFCCC and featured a keynote speech by the Deputy Director General of the Food and Agriculture Organizations of the United Nations (FAO).
6. The launch was immediately followed by the first thematic session on Innovative approaches to deploy, disseminate and scale-up technologies and solution for climate smart agriculture, held in

¹ TEC20 meeting report available in: <https://unfccc.int/tclear/tec/meetings.html>

collaboration with the FAO and the Global Alliance on Climate Smart Agriculture (GACSA). Successful innovative models and approaches, lessons learned, and good practices related to climate-smart agriculture were discussed by panellists representing a wealth of expertise and perspectives. These included: policies for enabling innovations, innovative approaches from business perspectives, innovative approaches for smallholder farms and landless communities, innovative finance, and role of digital technologies. Amid being organised in parallel/overlapped with other events, the Technology Day was attended by around 300 participants who actively participated during the questions and answers with audience. Full information and recording of the event can be accessed in TT: CLEAR.²

7. The second thematic session will focus on “Innovative approaches to strengthening coastal and ocean adaptation” and will be organized in collaboration with the International Union for Conservation of Nature (IUCN), the Friends of Ecosystem-based Adaptation (FEBA) network and the Nairobi Work Programme (NWP) Expert Group on Oceans.

B. Scope of the note

8. The note contains:

(a) Summary report of the launch of Technology day and the thematic session on “Innovative approaches to deploy, disseminate and scale-up technologies and solution for climate smart agriculture”, held during the Climate Dialogues (see Annex 1);

(b) Initial concept of the second thematic session on “Innovative approaches to strengthening coastal and ocean adaptation” (see Annex II).

C. Possible action by the Technology Executive Committee

9. The TEC is invited to:

(a) Take note of the report of the first thematic session on Innovative approaches to deploy, disseminate and scale-up technologies and solution for climate smart agriculture;

(b) Provide guidance for the upcoming thematic session on coastal and ocean adaptation, in particular:

(i) Possible topics to be discussed during the panel discussion;

(ii) Continued engagement on this theme and potential future collaboration to advance innovative adaptation technologies.

10. The TEC may also wish to consider the implications of the planning of SB sessions in 2021 on the organization of thematic session(s) of Technology Day.

II. Next steps

11. The report of the launch of Technology day and the thematic session on Climate-smart Agriculture will be made publicly available in the Technology day event page in TT: CLEAR. The outcomes of this thematic session and of future thematic sessions will be used to develop a policy brief and recommendations to the COP and CMA in 2022, as per the updated rolling workplan of the TEC.³

12. The Innovation taskforce, supported by the secretariat, will continue work in collaboration with IUCN and FEBA to prepare for the organization of the second thematic session.

² https://unfccc.int/ttclear/events/2020/2020_event07

³ TEC rolling workplan last updated in February 2021 can be viewed in [here](#)

Annex I

Report on the launch of Technology day and the thematic session on Innovative approaches to deploy, disseminate and scale-up technologies and solution for climate smart agriculture

I. Summary

1. Climate Smart Agriculture is a farmer positive approach empowering farmer voices into the global dialogue taking people-centric approach. Implementation of technology is **urgent** to meet the **SDG targets**. There are many innovative **climate smart technologies with multiple co-benefits** within the agriculture space. Technology is essential to scale up the implementation of climate smart agriculture. **Technology innovation** can facilitate access to food water and build resilience and provide information for decision making.
2. **Partnership and collaboration** at the global and local level are essential to scale up the innovation and make innovations and technology accessible to farmers. **A multi-stakeholder approach** is required to match the farmer with scientists, civil society, financial institutions. **Working together with women, youth, the indigenous community** is key to adopt and scale-up climate smart innovations in agriculture. **Indigenous knowledge complementing technological innovation** enhances the **adaptive capacity and resilience of the farmers**.
3. Climate solutions should be part of building back better. **Transformative thinking** in digital services, policymaking, and finance are required to **scale up new technologies**. **The digital revolution** will help farmers to make better choices. **Policy and institutional change** are important to enable transformation. **De-risking the agriculture value chain** and bringing **private sector investment** into agriculture is needed to ensure the scaling up of innovations. **Transforming the innovation system** to work better with other players in the system is crucial in scale up the technology.

II. Introduction

A. Background

4. To respond to the increasing threat of climate change and achieve the Paris Agreement's goals, business-as-usual application of adaptation technologies would not be sufficient. Innovation and innovative approaches to adaptation technologies are needed to help countries further increase the ability to adapt and enhance their climate resilience. They are also required for all aspects of the technologies - hardware, software, and orgware – and at the scale where they can be deployed faster. The need to upscale the deployment of innovation and innovative approaches in adaptation also bodes well with “Recover Better” efforts as the world is recovering from the impacts of the Covid-19 pandemic.
5. In response to the guidance from the Paris Agreement rule book adopted in Katowice (2018),¹ the Technology Executive Committee² (TEC) sets to work on *Innovation*, an area out of the five thematic areas of its rolling Workplan for 2019-2022. One of the activities in this thematic area focuses on adaptation technologies, particularly looking at innovative approaches, including through the development of scalable business cases, local community participation, gender and cultural-sensitive approaches to deploy, disseminate, **and scale up adaptation technologies**.³

¹ Technology framework as contained in decision 15/CMA.1

² The Technology Executive Committee (TEC) is the policy arm of the Technology Mechanism under the United Nations Framework Convention on Climate Change (UNFCCC). The TEC support Parties and stakeholders addressing climate change through action on technology development and transfer. Through its work, the TEC raises awareness and promotes the sharing of knowledge on various technology issues.

³ See activity 3 of thematic area Innovation of [TEC rolling workplan 2019-2022](#)

6. The TEC is set to implement this activity in two stages:
- (a) In 2020: holding a Technology Day event to discuss the innovative approaches on adaptation technologies; and
 - (b) In 2021: producing a policy brief and recommendations to Parties on this topic.
7. Set in this context, the aim of the “**Technology Day**” is to promote innovative approaches to deploy, disseminate and scale up adaptation technologies. Initially, Technology Day was scheduled to be held in conjunction with SB52 in June 2020. Due to the Covid-19 situation, a series of virtual events with different themes related to adaptation technologies was designed subsequently launched during November Climate Dialogues.
8. The Technology Day was launched on 30 November 2020 during the November Climate Dialogues (23 November – 4 December 2020). The Technology day entails a series of events that will take place in 2020 and 2021. TEC will apply TD sessions' outcomes to produce a policy brief and recommendations to the Conference of the Parties (COP). The first thematic session was convened on **Innovative approaches to deploy, disseminate and scale-up technologies and solutions for climate-smart agriculture technologies and solutions.**

B. Objectives

9. The objectives of the thematic session were to provide a platform for countries and stakeholders (innovation actors, technology experts, businesses, practitioners, observers, civil society, UN organisations, UNFCCC constituted bodies and mechanisms and relevant stakeholders) to:
- (a) Showcase and discuss various innovation and innovative approaches, including challenges and good practices, to deploying, disseminating and scaling up climate-smart agriculture solutions and technologies;
 - (b) Explore different roles of stakeholders and effective ways and measures to implement these approaches;
 - (c) Discuss how innovation and innovative approaches on climate-smart agriculture can contribute to global efforts to “Recover Better” and to achieve the goals of the Paris Agreement, including to increase NDC ambition and sustainable development goals;
 - (d) Identify potential policies and concrete actions that can be undertaken to accelerate and scale-up the dissemination of climate-smart agriculture solutions and technologies.

C. Proceedings

10. The programme was divided into two sessions: – the launch of the Technology day; and a thematic session on Innovative approaches to deploy, disseminate and scale-up technologies and solutions for climate-smart agriculture.
11. More than three hundred participants attended the event via shared broadcast link. Full recording of the event and relevant presentations are available in TT: CLEAR.⁴

III. Summary of the sessions

A. Launch of Technology Day

12. Ms. Hindou Oumarou Ibrahim, President, Association for Indigenous Women and Peoples of Chad (AFPAT), Chad, moderated the session. Mr. Mareer Husny, Chair, Technology Executive Committee, opened the session welcoming the participants and explaining the objective of

⁴ Full recording of the event and relevant presentations https://unfccc.int/ttclear/events/2020/2020_event07

technology day. Mr. Husney underscored the importance of **identifying the innovation on adaptation and the diffusion of adaptation technologies** within countries.

13. Ms. Marianne Karlsen, SBI chair, made an opening remark, appreciating the TEC work to organise Technology day on innovative approaches to deploy, disseminate and scale up adaptation technologies. She also emphasized that innovative solutions should also look at the **involvement of multiple stakeholders, bringing together technical, policy, business, financial and social perspectives** into the table.

14. The Executive Secretary of UNFCCC, Ms. Patricia Espinosa, officially launched the Technology day event. In her opening remarks, Ms. Espinosa stressed the **need for innovations and technological solutions** to overcome the twin crisis of climate change and pandemic, thereby **achieving the Paris Agreement and Sustainable Development Goals**. She also emphasized that the technology day will be a recurring event during the subsidiary bodies' sessions.

15. The keynote speaker Ms. Maria Helena M.Q. Semedo, Deputy Director-General, FAO, underlined the **inclusion of climate solutions** to be the most critical part in **building back better** from the impact of the pandemic. Ms. Semedo also highlighted the need for technology and **innovation** in agriculture to **optimize natural resources**, minimize the adverse effects on the environment, and adapt to climate change, providing rural community tools to increase resilience. Innovative solutions such as **climate smart agriculture** can be **adapted to individual countries' needs**, farmers helping to accelerate in achieving sustainable development goals, and play a prominent role in scale-up adaptation and mitigation efforts.

B. Thematic session: Innovative approaches to deploy, disseminate and scale-up technologies and solutions for climate smart agriculture

16. Ms. Hindou Oumarou Ibrahim, President, Association for Indigenous Women and Peoples of Chad (AFPAT), moderated the thematic session on Innovative approaches to deploy, disseminate and scale-up technologies and solution for climate smart agriculture. A video presentation introduced the thematic session on climate smart agriculture.

2. State of play

17. This part of the thematic session looked into the need for innovation and innovative climate smart agriculture approaches. It further explored what the state of play is and what are the identified co-benefits.

18. Mr. Bruce Campbell, Director of the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), presented on the state of play, noting that the **implementation is urgent** to meet the 2030 target. Supported by the various example of technologies and innovations in agriculture sectors, Mr. Campbell emphasized four different areas that need transformation to scale up the agriculture technologies: a) **digitally-enabled advisory service** to help the farmer make better choices, b) **policy and institutional change** realigning subsidies to climate change agenda, c) **finance** particularly derisking agriculture value chain and d) **transforming innovation system** to improve research and development.

19. H.E. Hans Hoogeveen, Co-chair, Global Alliance for Climate Smart Agriculture (GACSA), highlighted the importance of **a multistakeholder approach linking farmers with scientists, civil society, and financial** institutions to overcome the challenge of food insecurity, malnutrition. H.E. stressed **the role of women and youth** in the agriculture value chain.

3. Panel discussion: Successful innovative models and approaches, lessons learned and good practices

20. The panel discussion, moderated by Ms. Ibrahim, demonstrated various innovative models and approaches in climate smart agriculture and discussed the lessons that can be derived from these approaches. This session further explored how different stakeholders' roles vis-a-vis community engagement, gender-responsiveness, indigenous and local technologies/knowledge, and mitigation co-benefits are considered in innovative models and approaches.

(b) Moderated panel discussions

21. The first panelist Mr. Dale Crammond, Department of Agriculture, Food and the Marine, Government of Ireland, responded to question the role of the Irish government in using innovation to reduce methane emission in livestock, providing an overview of **policies enabling innovations in technologies** in the livestock sector to reduce methane emission. Mr. Crammond stated that Ireland has focused on **breeding introducing genomic selection** and developing **livestock information databases**. He also stressed out reducing the environmental footprint of livestock is essential.

22. Responding to the question on the main drivers behind scaling positive agriculture, Mr. Tony Siantonas, World Business Council for Sustainable Development (WBCSD), stated that climate smart agriculture is **people-centered, empowering farmer voices into the global dialogue**. He also highlighted the importance of the **private sector in bringing together innovations**, identifying new technologies and bringing investment to scale-up the emerging technologies. Mr. Siantonas shared a pilot business model an example from Ghana to disseminate weather information to cocoa farmers.

23. Mr. Krishna Pant, Food and Agriculture Organisation (FAO), responded to the question of enhancing the adaptation capacity of the crops and livestock to climate change with an example of an adaptation project in Nepal where smallholder farmers benefited from the **cross-breeding and resilient crop** variety, enhancing the adaptive capacity.

24. Explaining the innovative financing on adaptation established by Adaptation Fund Board (AFB), Ms. Saliha Dobardzic stated that innovation is one of the three key pillars of the current Adaptation Fund Strategy. Ms. Dobardzic explained the innovative financing on adaptation established by Adaptation Fund. Ms. Dobardzic also pointed out two issues that Adaptation Fund is tackling on innovation: 1) the **problem of accelerating climate change** and 2) **funding for tackling climate change**. Ms. Dobardzic highlighted Adaptation Fund's **enhanced direct access** in addition to direct access **devolving decision making on adaptation grants to national implementing entities**, including the decision on how the funding is spent.

25. Ms. Meng Zeng, Food and Agriculture Organisation, stressed the role of digital innovation in agriculture, responding to the question of how digital innovation in agriculture could benefit farmers in implementing climate smart agriculture. Ms. Zeng highlighted how **digital technologies and digitization** applied along agri-food value chain can support climate actions and actors along the agriculture value chain. Ms. Zeng stated that **digital innovation** in farming helps **implement climate smart agriculture through enhanced EWS and increases farmer's resilience** to better adapt to climate change. Ms. Zeng provided a clear example of digital technologies like WaPOR and Weather and Crop Calendars, Fall Armyworm (FAW) developed within FAO to harness digital innovation in agriculture to help farmers implement climate smart agriculture.

26. H.E. Hans Hoogeveen emphasized the importance of **multistakeholder collaboration** to make **technologies and innovation accessible to farmers** globally and at the regional and local levels. H.E. Hoogeveen also stated that **scaling up a local and regional level partnership** can be successful if all the **stakeholders come together with a shared vision**.

(c) Discussions with audience

27. The audience's first question was the appropriate CSA approach to have the right balance between mitigation and adaptation objectives. This question was responded to by Mr. Bruce Campbell, stating that there is **no single guideline**, as **systems are context-specific**. Adding to that, Mr. Pant provided an on-ground example of how one intervention in agriculture reduces emissions. Subsequently, Ms. Dobarzic pointed out **mitigation related safeguards** used for project evaluation within adaptation fund projects.

28. Mr. Dale Crammond responded to the second question, whether sustainable net-zero for agriculture could be contemplated. Mr. Crammond stated that **emissions from food transportation** are a **small** part of overall emissions than **emissions at the source** where animals or livestock are produced. Mr. Crammond emphasized that the **carbon-efficient supply chain** would **improve**, reducing emissions from transport and the source. Further adding on to Mr. Crammond's response, Mr. Santonias stated that **emission is context-based** and stressed that **emission from food loss and food waste is enormous** and therefore should not be left ignored. Responding to the same question, Mr. Pant shared technological examples in agriculture from Nepal using zero energy.

29. H.E Hoogeveen elaborated the **need to work with the government and farmers and other stakeholders in the value chain**. Providing example from Viet Nam, emphasized working together with government, farmers and private sector investment along with government support would be essential to achieve emission reduction. H.E Hoogeveen added **the urgent need to consider food losses** to reduce emissions.

30. Ms. Zeng from FAO explained how farmers from developing areas receive early warning messages using a mobile app or text messages. Ms. Zeng also stated that **extension workers** from farmer field schools **provide an early warning system to farmers** where mobile apps or text message are not accessible,

(d) **Concluding discussions**

31. Ms. Zeng, FAO, stated that **enabling environment and ecosystem** is required to ensure digital innovation accessible to farmers and other stakeholders. Ms. Zeng illustrated an example where FAO is working to establish innovation hubs to empower youth through different programmes like hackathons, incubators and accelerators. She also pointed out the **need to embrace digital technology and solutions** such as machine learning. Further, she underscored the need to **align digital policies and strategies with local government**, national agriculture strategies to **consider local conditions and engage stakeholders** along the value chain.

32. Mr. Crammod highlighted that **technology plays a crucial role in the livestock** sector to reduce methane emissions contributing to global cooling, responding to the question on the future of innovation. He also stated the importance of **working in collaboration and partnership**, suggesting that **private sector investment** would be **essential in scaling up** various technologies emerging in the market.

33. Mr. Campbell explained that **the Climate Smart Agriculture concept could develop national policy complemented by the Theory of Change**. This change could be along with the digital technology or policy change that could drive policy intervention. Responding to the question of how farmers could benefit from private sector investment, Mr. Campbell illustrated with an example from Rwanda; **private sector investment could support farmers in shifting to remunerative agriculture from subsistence agriculture** to overcome marginalization through an inclusive value chain.

34. Ms. Dobardzic explained about other Adaptation Funding programme in response to the question on how could the innovative funding programmes support action on agriculture. She informed that Adaptation Fund, apart from catering to the request of country Parties, also offers a grant to non-Parties stakeholders through **Adaptation Fund Climate Innovation Accelerators implemented by UNDP and UNEP** working together with CTCN. She also added that UNDP and UNEP provide different **services, including various technical assistance packages** for capacity building.

35. H.E. Hoogeveen provided a concrete example from the ongoing GACSA project in Nigeria, working together with the government and private sector on food losses. From now on, H.E. suggested **social innovation** to bring **competencies of different sectors** is crucial and further suggested **a joint innovative business plan** where every partner brings its part in scaling up certain activities.

36. Mr. Pant provided an example of the FAO project on innovative approaches or practices to engage smallholders and landless farmers so that they can benefit from the application of climate resilient agricultural technologies through climate field school and participatory cafeteria trial that supported local communities in testing new varieties and **technologies to complement their indigenous knowledge**, helping smallholders identify technology suitable to address their needs. The climate field schools provided the weather forecast, extreme weather alerts, agrometeorological data through mobile technologies

37. Mr. Siantonas reiterated the need to **ensure accessible advisory services and usercentric solutions** in public-private partnership aspects and scalability to increase investments in innovation on climate smart agriculture. He further stated that the public-private partnership piece should **balance the potential of the enterprise and respect the importance of public good, ensuring its accessibility** to all.

4. Closing

38. The moderator, Ms. Ibrahim, thanked the panelist for the session, guiding to the conclusion of the event. Ms. Ibrahim reiterated that technology combined with innovation could help in overcoming climate urgency and achieving net-zero. She also underlined **the need** for technology to achieve multiple **goals of food security and reducing emissions bringing together all stakeholders** in the agriculture value chain. The visual artist (from Tofu Creatives) summarized the session and discussion, capturing the takeaways through virtual storytelling. The summary of the session was made available to all the participants.

39. Mr. Daniele Violetti, Director of Means of Implementation, UNFCCC, highlighted that **accelerating and enabling innovation** is critical for an effective, long-term global response to climate change and promoting economic growth and sustainable development. He also emphasized **working collaboratively as the key to stepping up efforts** in climate adaptation and building resilience. Mr. Violetti closed the session thanking the participants, panelists, moderator and speakers for their excellent contribution to the event.

Annex II

Concept note on Innovative approaches to strengthening coastal and ocean adaptation

Title: Innovative approaches to strengthening coastal and ocean adaptation

Date: 2021 (TBD)

Time: 05:00-06:30 PST / 08:00-09:30 EST / 14:00-15:30 CET / 16:00-17:30 EAT / 20:00-21:30 ICT
(90 minutes)

A. Summary

1. “Technology Day” (TD) entails a series of events taking place in 2020 and 2021 whose objective is to promote innovative approaches to deploy, disseminate and scale up adaptation technologies in various key sectors. TD was launched on 30 November 2020 during the UN Climate Change Dialogues with the first session on innovative approaches for climate-smart agriculture.¹

2. As a part of “Technology Day”, this oceans/coastal thematic session, *Innovative approaches to strengthening coastal and ocean adaptation*, will be organized by the International Union for Conservation of Nature (IUCN), the Friends of Ecosystem-based Adaptation (FEBAⁱ) network, and UNFCCC Technology Executive Committee (TECⁱⁱ), in collaboration with the NWP Expert Group on Oceansⁱⁱⁱ. This session will examine how adaptation technologies can offer solutions to close existing gaps in order to build ocean and coastal climate resilience.

3. The outcomes of TD sessions will be applied by TEC to produce a policy brief and recommendations to the Conference of the Parties (COP). Insights from this session will be applied to the potential creation of a joint working group on advancing innovative adaptation technology, which would promote collaboration into the future. The proposed working group would ensure value addition by forming functional linkages with existing EbA knowledge sharing platforms, such as the NWP Expert Group on Oceans, the Green-Gray Community of Practice, the NWP-FEBA Biodiversity & Climate working group, and other FEBA working groups. Drawing on prior work and expertise from these groups, including the scoping paper, the new working group would address gaps, challenges, and opportunities through the development of operational guidelines on integrating technology into adaptation projects.

B. Background

4. UNFCCC Technology Executive Committee (TEC) work highlights a wide variety of adaptation technologies that have been successfully applied and implemented within coastal and ocean settings, including its work on coastal technologies.² The appropriate application of technologies demands consideration of local context and integration of multiple issues simultaneously, including perspectives from stakeholders and working at appropriate scales – all of which plays a critical role in the successful implementation of adaptation technologies.

5. To respond to the increasing threat of climate change and to achieve the goals of the Paris Agreement, business-as-usual application of adaptation technologies is not sufficient. The continually evolving challenge of climate change creates a moving target; repeating past approaches would be wholly insufficient. Technology and adaptation have each gained attention for their much-needed contributions to addressing the climate crisis – integrating them is critical for building a resilient future. Innovative approaches using adaptation technologies, including hybrid

¹ https://unfccc.int/ttclear/events/2020/2020_event07

² Learn more in the TEC-WIM Executive Committee Policy Brief: Technologies for Averting, Minimizing and Addressing Loss and Damage in Coastal Zones, available here: <https://unfccc.int/ttclear/coastalzones>.

technologies,³ are needed to help countries further increase the ability to adapt, enhance the climate resilience of communities globally as well as predict and reduce risk. Innovative financing mechanisms, such as the rapidly deployable Global EbA Fund⁴ which was recently launched by IUCN and UNEP, aim to support projects with such novel and catalytic contributions to adaptation. Against the backdrop of the UN Decade on Restoration and the UN Decade on Ocean Science, forward-looking and sustainable approaches are needed in all aspects of these technologies and at the scale where they can be deployed efficiently, particularly in marine and coastal environments where climate change is already having drastic impacts on communities around the world.

6. Upscaling hybrid innovative approaches in adaptation, especially technologies, aligns with the need for global “Green Recovery” efforts in response to the actively raging COVID-19 pandemic. Recovery plans must consider and include the means to scale up climate action in all forms, including adaptation and technology, to deal with impacts of short-term risks such as the COVID-19-related health and economic crises while also providing a solution for the ultimate long-term risk: the climate crisis.

7. This session is also a direct response to various gaps that have been identified through the [oceans, coastal areas and ecosystems thematic work under the NWP](#). These gaps were primarily discussed in a [scoping paper](#) which was derived from reports submitted by Parties to the UNFCCC and the Intergovernmental Panel on Climate Change (IPCC) [Special Report on the Ocean and Cryosphere in a Changing Climate](#) (SROCC) as well as the focal point forum at COP25. Momentum is building to form partnerships to fill these gaps. Areas specific to technologies and innovation for preventing risks, sustainable planning and infrastructure, and technologies and innovations for building resilience of ocean and coastal ecosystems and communities have been identified as one of the opportunities for actions.

C. Proposed timing

8. This thematic session is tentatively scheduled for June 2021 (date to be determined). To enhance visibility and increase synergies, efforts will be made so that the event can be organized in conjunction with relevant upcoming events.⁵

D. Objectives

9. The objective of the event will be to present and discuss innovative learning and examples from integrating technology and ecosystem-based adaptation in various policies and programmes in order to build the resilience of oceans and coastal ecosystems and communities, in particular to:

- (a) Identify emerging innovative technologies that have high potential to meaningfully build resilience in ocean and coastal settings;
- (b) Showcase and discuss various innovative approaches for integrating technological solutions, including innovative policies and programmes, finance and support mechanisms;
- (c) Explore how indigenous and local knowledge has been integrated into promoting or developing technological solutions for adaptation;

³ Hybrid technologies are those that use two or more distinct types of approaches to achieve a holistic outcome, in this case to help communities and ecosystems adapt to and become resilient to climate change. A visceral example is “green-grey” infrastructure, which mixes the conservation and restoration of nature (including natural coastal buffers such as mangroves and seagrasses) with conventional approaches (such as concrete dams and seawalls).

⁴ The Global EbA Fund was launched by IUCN and UNEP in March 2021. More information available here: <https://globalebafund.org/>

⁵ Possibilities currently being explored include:

- UNFCCC ocean or Nature-based related event (June)
- Official launch of the Global EbA Fund (June/summer)
- UN Decade on Ocean Science for Sustainable Development

(d) Highlight the importance of safeguards for climate technology, including gender responsiveness and consideration of youth, indigenous and other historically marginalized perspectives.

E. Draft programme

Time	Session
15 mins	<p>Welcome and housekeeping Moderator: Ali Raza Rizvi, International Union for Conservation of Nature (IUCN)</p> <p>Opening Remarks SBSTA Chair - TBC</p> <p>Introductory Remarks TEC Chair</p> <p>Keynote Speaker Xxxx – TBD</p>
5 mins	Mentimeter Check-in
Panel Discussion: Successful Innovative Models & Approaches, Lessons Learned and Good Practices	
30 mins	<p>Moderated panel discussion This part of the session will be guided by the following questions:</p> <ul style="list-style-type: none"> ▪ What are key elements of innovation in your work? What made them successful and what can we learn from them? ▪ How can this approach contribute further to sustainable development and climate goals? ▪ What is needed to improve further or scale up this innovative approach? <p>Possible topics:</p> <ul style="list-style-type: none"> - Coastal resilience work - Climate technology, safeguards and Indigenous Peoples - Green-gray infrastructure and hybrid solutions - Health and Technology in coastal and ocean settings - Regional perspective (Caribbean/SIDS) on technology for coastal/ocean adaptation - Innovative policy and finance (e.g., the Caribbean EbA Facility, the Global EbA Fund) - Fostering blue economy
20 mins	Moderated Q&A with Audience
8 mins	Concluding remarks by the panelists
4 mins	Mentimeter check-in
5 mins	Summary of the session Moderator
3 mins	Closing Remarks UNFCCC Secretariat

- i *About FEBA: Friends of EbA (FEBA)* is a global collaborative network of 80+ agencies and organisations involved in Ecosystem based Adaptation (EbA) working jointly to share experiences and knowledge, to improve the implementation of EbA related activities on the ground, and to have a stronger and more strategic learning and policy influence on EbA. EbA has paved the way for the wide uptake of working with nature as a cornerstone of adaptation strategies to simultaneously address climate risks, the biodiversity crisis, and human wellbeing. FEBA works to synthesise multi-stakeholder knowledge on EbA; disseminate this knowledge by convening the global EbA community around high-level events, technical workshops, and expert working groups; and raise awareness and understanding of EbA in adaptation planning processes and multilateral policy frameworks. The CBD COP recognises FEBA as a key partner “to support Parties in their efforts to promote ecosystem-based approaches to climate change adaptation” (Decision 14/5). The International Union for the Conservation of Nature (IUCN) is the FEBA Secretariat.
- ii *About UNFCCC TEC:* The Technology Executive Committee (TEC) is the policy arm of the Technology Mechanism under the United Nations Framework Convention on Climate Change (UNFCCC). It focuses on identifying policies that can accelerate the development and transfer of low-emission and climate resilient technologies. The TEC and the Climate Technology Centre and Network (CTCN) form the Technology Mechanism, which also serves the Paris Agreement. More information is available at: <https://unfccc.int/ttclear/tec>
- iii *About the Nairobi Work Programme (NWP) and the NWP Expert Group on Oceans:* Oceans and coastal areas and ecosystems comprise one of the priority thematic areas of the NWP mandated by Parties at SBSTA 50, leading to the establishment of the NWP Expert Group on Oceans under the UNFCCC in 2019 ahead of the COP25. The overarching mandate of the NWP is to drive forward activities that produce usable knowledge products and to catalyse action in response to identified knowledge gaps and needs. The Expert Group on Oceans includes 23 representatives of renowned organizations and institutes, including the IPCC, United Nations entities, civil society and others expert organisations. The Group has been focused on co-designing and implementing actions – particularly in support of Least Developed Countries and Small Island Developing States (SIDS) – while collaborating with the constituted bodies under the UNFCCC process.