Framework Convention on Climate Change

TEC/2019/19/6

Technology Executive Committee

30 August 2019

Nineteenth meeting

Bonn, Germany, 16–19 September 2019

Draft recommendations on ways forward and actions to be taken based on the outcomes of the technical expert meetings on mitigation

Cover note

I. Introduction

A. Background

1. At its twenty-third session, the Conference of the Parties (COP) conducted an assessment of the technical examination process (TEP) on mitigation and adaptation so as to improve its effectiveness and adopted decision 13/CP.23.

2. Paragraph 4 of the decision requests the Technology Executive Committee (TEC) to include in the joint annual report to the COP of the TEC and the Climate Technology Centre and Network (CTCN), having consulted with the high-level champions thereon, recommendations for Parties and other organizations on ways forward and necessary actions to be taken based on the outcomes of the technical expert meetings (TEM). The topics of the technical examination process on mitigation for the period of 2018–2020 were identified by the High-level Champions, in consultation with the TEC and CTCN.[1]

3. In 2018, the TEC participated in one in-session and three regional TEMs on mitigation (TEM-M). It eventually prepared recommendations to COP 24 on ways forward and actions to be taken based on the outcomes of the TEM-M. The recommendations are contained in Annex I to the Joint Annual Report of the TEC and the CTCN for 2018.[2]

4. In 2019, the TEC participated in one in-session TEM-M and two regional TEM-Ms:

(a) The in-session TEM-M 2019 on off-grid and decentralized energy solutions for smart energy and water use in the agri-food chain (20–21 June 2019, Bonn, Germany);[3]

(b) The regional TEM-M on circular economy solutions and innovation in water and energy management for the agri-food chain, held during the Latin America and Caribbean Climate Week (19–13 August 2019, Salvador, Brazil);[4]

(c) The regional TEM-M on decentralized solutions for smart energy and water use in the agri-food chain, held during the Asia and Pacific Climate Week (2–6 September 2019, Bangkok, Thailand).[5]

5. At TEC 19, the chair of the TEC will be invited to present the draft recommendations to COP 25.

[1] TEP-M topics 2018-2020
[2] Joint annual report of the TEC and the CTCN for 2018
[3] In-session TEM-M 2019, Bonn, Germany
[4] Regional TEM-M, LAC Climate Week 2019 (the page will be activated shortly before TEC 19)
[5] Regional TEM-M, AP Climate Week 2019 (the page will be activated shortly before TEC 19)

6. This activity is carried over from the TEC rolling workplan for 2016–2018. It is currently listed as activity 5 under the area of work Implementation in the draft rolling workplan of the Technology Executive Committee for 2019–2022 (document TEC/2019/19/4).

B. Scope of the note

7. The annex to this note contains the draft recommendations of the TEC to COP 25 on ways forward and actions to be taken, based on the outcomes of the TEM-Ms of 2019.

C. Possible action by the Technology Executive Committee

8. The TEC will be invited to consider and agree on these recommendations, which will be submitted to the high-level champions, the chairs of the subsidiary bodies, the co-chairs of the adaptation committee, the director of the CTCN, and included as annex in the joint annual report of the TEC and the CTCN for 2019.

Annex

Draft recommendations of the Technology Executive Committee on ways forward and actions to be taken based on the outcomes of the technical expert meetings on mitigation

1. Building on the outcomes of the discussions that took place during the TEM-Ms in 2019 on the topic of off-grid and decentralized energy solutions for smart energy and water use in the agri-food chain, the TEC highlights to Parties that:

(a) Many examples exist of successful applications of off-grid and decentralized renewable energy and energy efficient technologies throughout the global agri-food sector, including solar-, wind- and hydro powered water pumps, mini-hydro and biogas power turbines, solar water heaters, bioenergy crop drying heaters, insulated cool stores, LED lighting in greenhouses, precision irrigation systems, biogas solar PV milk coolers.

(b) A wide and accelerated implementation of such smart energy and water use solutions can achieve significant greenhouse gas emission reductions and contribute to meeting the 1.5ºC target of the Paris Agreement as well as provide additional economic, social and environmental benefits to rural communities, such as affordable and reliable access to energy and water, increased investment opportunities, additional source of income and improved quality of life.

2. The TEC underlines that:

(a) The agri-food sector is a complex sector that encompasses anthropogenic and natural systems and their multiple interactions, which are often site-specific. This poses a challenge to the replication and scaling up of successful technologies as they must adapt to suit the diverse local contexts;

(b) It is important to purse innovative approaches and shift to new production patterns and business models that acknowledge the complexity of the agri-food sector, reduce its energy and water intensity and increase the value-chain through the reuse and recycling of resources. In this context circular economy models and the water/energy/food nexus approach play an essential role.

(c) The benefits of using circular economy models and nexus approach in the agri-food sectors go beyond the emission reductions from fossil-fuel consumption, as demonstrated in some regions applying the approach. They also produce other benefits, including reduced socio-environment impacts, transforming the roles of small and medium enterprises, and ensuring sustainable agri-food production;

(d) Awareness raising, capacity building and technical field support are essential to ensure the successful replication of smart energy and water technologies as well as their long-term operation and maintenance;

(e) The private sector is becoming more actively engaged to support energy projects that foster sustainable development in the agri-food sector. However, additional incentives may be required for private investors to engage in energy business in rural areas where local communities have limited ability to pay for the services and products.

3. As policymakers have a critical role to play in setting standards, policies and regulations that incentives a more efficient use of energy and water in the agri-food sector, the TEC recommends that the COP encourage Parties:

(a) To introduce policies, schemes and programmes that promote smart-water and smart-energy approaches in the agri-food sectors, which may include:

(i) Setting target for the deployment of renewable energy technologies for agriculture, food processing and trade;

(ii) Introducing carbon pricing policy and instruments to reduce the use of fossil fuel;

(iii) Introducing financial incentives schemes that encourage and facilitate farmers and businesses to shift to innovative and sustainable production systems and technologies;

(iv) Promoting initiatives raising awareness of food consumers, such as labelling system for retail food packaging to display the energy used in the production, processing, packaging and distribution of the product;

(b) To promote synergies between public and private investors to better support research, development and deployment of energy and water smart technologies, particularly for small-scale farming systems in developing countries;

(c) To facilitate the transition to new business models and products, through establishing enabling environment that provides direction of opportunities for circular economy in the country and promotes coordination of efforts between national, regional and local levels.

(d) To enhance the capacities of various actors by stimulating the exchange of experiences and lessons learned, supporting specific training and education programmes, and facilitating access to data and knowledge, including local and indigenous knowledge.