

Technology Executive Committee

Fifteenth meeting

29 August 2017

Bonn, Germany, 12–15 September 2017

Draft joint annual report of the Technology Executive Committee and the Climate Technology Centre and Network for 2017

Background note

I. Introduction

A. Background

1. The Conference of the Parties (COP), by its decision 17/CP.20, paragraph 4, decided that the Technology Executive Committee (TEC) and the Climate Technology Centre and Network (CTCN) shall continue to prepare a joint annual report to the COP, through the subsidiary bodies, on their respective activities and the performance of their respective functions.

2. In response to decision 2/CP.17, paragraph 142, and decision 14/CP.18, paragraph 11, the TEC and the Advisory Board of the CTCN agreed on procedures for preparing joint annual reports. Such procedures, as recorded in the "Joint annual report of the Technology Executive Committee and the Climate Technology Centre and Network for 2013" state the following for preparing the report:

- (a) It should be a single document covering three sections:
- (i) Joint chapter of the TEC and the CTCN;
- (ii) Report of the TEC;
- (iii) Report of the CTCN;

(b) It should be completed in a timely manner and not exceed the word limit of the UNFCCC, in order to ensure its translation into all six official United Nations (UN) languages;

(c) The Chair and Vice-Chair of the TEC and the Chair and Vice-Chair of the Advisory Board are to prepare and finalize the joint chapter of the report, taking into account any comments received from members of the TEC and the CTCN Advisory Board.

B. Scope of the note

3. This background note provides an initial draft of the joint annual report of the TEC and the CTCN for 2017, including information on activities and performance of the TEC that occurred before TEC 15.

4. This note does not include the joint chapter of the joint annual report, which will be covered by a separate note,¹ nor does it include the annual report of the CTCN.

C. Possible action by the Technology Executive Committee

5. The TEC will be invited to provide guidance and to mandate the Chair and Vice-Chair of the TEC to finalize the section on annual report of the TEC for 2017.

¹ TEC/2017/15/18.

Annex I

Draft joint annual report of the Technology Executive Committee and the Climate Technology Centre and Network for 2017

I. Background

A. Mandate

1. The Conference of the Parties (COP) established the Technology Mechanism, comprising a Technology Executive Committee (TEC) and a Climate Technology Centre and Network (CTCN), to facilitate the implementation of enhanced action on technology development and transfer to support action on mitigation and adaptation in order to achieve the full implementation of the Convention.¹

2. COP 17 requested the TEC and the CTCN to establish procedures for preparing a joint annual report and also requested the secretariat to make that joint annual report available for consideration by the COP through its subsidiary bodies.² In response to that request, the TEC and the CTCN established procedures for preparing joint annual reports.³

3. COP 20 decided that the TEC and the CTCN shall continue to prepare a joint annual report to the COP, through the subsidiary bodies, on their respective activities and the performance of their respective functions.⁴ COP 21 invited the TEC and the Advisory Board of the CTCN to update the procedures for preparing the joint chapter of the joint annual report of the TEC and the CTCN.⁵

4. COP 22 encouraged the TEC and the CTCN to continue updating the procedures for preparing the joint chapter of their joint annual report and to report on the outcome of this work in their joint annual report to COP 23. Further, COP 22 invited the TEC and the CTCN to include information on challenges and lessons learned in implementing their respective mandates in the future joint annual reports.

B. Scope of the report

- 5. This joint annual report of the TEC and the CTCN to the COP for 2017 contains:
 - (a) A joint chapter of the TEC and the CTCN (chapter II);

(b) A chapter on the activities and performance of the TEC in 2017, including key messages to COP 23. It covers the outcomes of the 14th and 15th meetings and inter-sessional work of the TEC with active engagement of nominated experts from relevant international and observer organizations and information on challenges and lessons learned in implementing its mandates (chapter III);

(c) A chapter on the activities and performance of the CTCN in 2017, including key messages to COP 23. It also covers the outcomes of the 9th and 10th meetings and intersessional work of the Advisory Board of the CTCN and information on challenges and lessons learned in implementing CTCN mandates, and includes information provided by the United Nations Environment Programme (UNEP) on matters regarding its role as the host of the Climate Technology Centre (chapter IV).⁶

¹ Decision 1/CP.16, paragraph 117.

² Decision 2/CP.17, paragraph 142, 143.

³ FCCC/SB/2013/1, paragraph 3.

⁴ Decision 17/CP.20, paragraph 4.

⁵ Decision 12/CP.21, paragraph 2.

⁶ Decision 14/CP.18, paragraph 10.

C. Possible action by the subsidiary bodies

6. The Subsidiary Body for Scientific and Technological Advice (SBSTA) and the Subsidiary Body for Implementation (SBI) may wish to consider the joint annual report of the TEC and the CTCN for 2017 and recommend a draft decision on this matter for consideration and adoption at COP 23.

II. Joint chapter of the Technology Executive Committee and the Climate Technology Centre and Network

7. To be inserted ...

III. Report on the activities and performance of the Technology Executive Committee in 2017

A. Organizational matters

1. Membership

Election of the Chair and Vice-Chair

8. The TEC, at its 14th meeting, elected Mr. Michael Rantil (Sweden) as the Chair and Ms. Duduzile Nhlengethwa-Masina (Swaziland) as the Vice-Chair of the TEC for 2017. The TEC expressed its appreciation to Ms. Nhlengethwa-Masina and Mr. Rantil, as Chair and Vice-Chair for 2016, respectively, for their leadership in enabling the TEC to effectively carry out its work in 2016.

Members of the Technology Executive Committee

9. The list of the members of the TEC, including the length of their respective terms of office, is available on the UNFCCC website.⁷

2. Arrangements for the meetings of the Technology Executive Committee and related events

10. The TEC convened two meetings in 2017: its 14th meeting from 28 to 31 March, and its 15th meeting from 12 to 15 September, both in Bonn, Germany. During its 14th meeting, the TEC held a thematic dialogue on industrial energy efficiency and material substitution in carbon-intensive sectors.⁸

11. The meetings of the TEC were webcast, enabling live and on-demand coverage of the plenary discussions. The meetings were attended by observers, including Party observers and observer organizations. The TEC invited observers to express their views on the issues under consideration. Representatives of the Advisory Board of the CTCN, the Standing Committee on Finance (SCF), the secretariat of the GCF and the Global Environment Facility (GEF) also participated in TEC meetings. Meeting documents, presentations made during the meetings, webcast of meetings and meeting reports are available on UNFCCC technology website (TT:CLEAR).⁹

B. Update and implementation of the rolling workplan of the Technology Executive Committee for 2016–2018

1. Update of TEC rolling workplan for 2016–2018

⁷ http://unfccc.int/bodies/election_and_membership/items/6558.php.

⁸ http://unfccc.int/ttclear/events/2017_event1.

⁹ http://unfccc.int/ttclear/pages/tec_home.html.

12. The rolling workplan of the TEC for 2016–2018 (rolling workplan) previously agreed upon by the TEC at its 12th meeting, was updated at the 14th meeting of the TEC to incorporate further

activities in various thematic areas,¹⁰ taking into account mandates arising from the COP and subsidiary bodies from the previous year and new activities that emerged as follow up of implementation of the workplan.

13. The updated rolling workplan aims at ensuring its responsiveness to the new mandates and guidance arising from the COP and subsidiary bodies and the relevance and effectiveness of the work of the TEC, in accordance with its mandate and functions. Its activities are still organized in three workstreams,¹¹ and maintains the six thematic areas that have been identified by the TEC: Adaptation; Climate technology financing; Emerging and cross-cutting issues; Innovation and research, development and demonstration; Mitigation; and Technology needs assessments.

2. Implementation of TEC rolling workplan in 2017

14. As per its rolling workplan, in 2017 the TEC undertook substantive work in six thematic areas as mentioned above. In addition of these six thematic areas, the TEC in collaboration with the CTCN, updated the procedures for preparing the joint chapter of the joint annual report to the COP.

15. The TEC continued undertaking its inter-sessional work through thematic task forces to effectively support the implementation of the update rolling workplan. The TEC task forces' composition and mandate for 2017 are available on TT:CLEAR.¹² The TEC taskforces benefited from the participation of experts nominated from international and observer organizations.

16. The TEC wishes to express its appreciation for the financial contributions provided by Parties as well as for the active participation and support of relevant organizations and other stakeholders. These have enabled the TEC to successfully implement its rolling workplan in 2017.

Adaptation

17. In 2017, the TEC continued its work on South-South cooperation (SSC) and triangular cooperation (TrC) on technologies for adaptation and produced a policy brief (TEC Brief) on SSC and TrC on technologies for adaptation in the water and agricultural sectors. The TEC Brief explores how countries can harness SSC and TrC for accelerating the exchange of adaptation technologies in the water and agriculture sectors. It also highlights challenges, best practices, lessons learned, and the roles of stakeholders in replicating and transferring such technologies. The TEC Brief was agreed at TEC14 and published in June 2017.¹³

18. The TEC also began the development of a compilation of good practices in effective knowledge sharing and practical learning on technologies for adaptation through SSC and TrC to serve as guidance for countries in implementing National Adaptation Plans (NAP) and adaptation components in their Nationally Determined Contributions (NDC). + *place holder for further information to be added resulting from the deliberations at TEC15.*

19. The TEC also continued to engage and contribute to the work of the Adaptation Committee (AC) in the preparation of technical expert meetings (TEMs) on adaptation in 2017. + *place holder for further information to be added resulting from the deliberations at TEC15*.

¹⁰ http://unfccc.int/ttclear/misc_/StaticFiles/gnwoerk_static/TEC_documents/74d5eb7001834aafaca82 d9400a3bc8e/185fa9a5ef4645149cae4c5eed0f40a6.pdf.

¹¹ The three workstreams are: (1) Analyse technology issues and provide policy recommendations; (2) Catalyse support and facilitate and promote technology cooperation and partnership to scale up implementation of actions; (3) Work in collaboration with the CTCN to promote coherence and synergy within the Technology Mechanism.

¹² http://unfccc.int/ttclear/templates/render_cms_page?s=TEC_intersesswrk.

¹³ http://unfccc.int/ttclear/tec/brief9.html.

Climate technology financing

Linkages between the Technology Mechanism and the Financial Mechanism

20. The TEC continued its work on linkages between the TM and the Financial Mechanism (FM) of the Convention. Following the outcomes of COP 22 on linkages between the TM and the FM, the TEC agreed on follow-up activities on climate technology financing to strengthen these linkages, including through enhancing collaboration with the GCF, GEF and the SCF.

Collaboration with the Standing Committee on Finance

21. In response to an invitation from the SCF, the TEC provided its inputs for consideration by the SCF in preparing its expert input to the sixth review of the FM. The inputs provided by the TEC focussed on two specific criteria on technology transfer as contained in the review framework shared by the SCF¹⁴ and build upon its work in the areas of climate technology financing; technology needs assessment; and innovation and research, development and demonstration. The TEC also provided its inputs to the SCF for draft guidance to the operating entities of the Financial Mechanism, in response to an invitation from the SCF.

Collaboration with the Green Climate Fund

22. The GCF Board decided to hold an annual meeting in order to enhance cooperation and coherence of engagement between the GCF and UNFCCC thematic bodies. This annual meeting is organized by the GCF secretariat on an annual basis in conjunction with the COP. The Chairs of the TEC and the Advisory Board of the CTCN participated in the first annual GCF meeting held in conjunction with COP 22 and have been invited to participate in the second annual GCF meeting to be convened in conjunction with COP 23. + place holder for further information to be added resulting from the deliberations at TEC15.

23. The GCF Board considered at its 18th meeting options for GCF support for collaborative research and development in developing countries. The GCF Board invited the Chairs of the TEC and the CTCN AB Chairs to present to the GCF Board on their work on innovation and research, development and demonstration during consideration of this item. + *place holder for further information to be added resulting from the deliberations at TEC15*

Collaboration with the Global Environmental Facility

Poznan strategic programme on technology transfer

24. SBI 43 invited the TEC to update its report on the evaluation of the GEF Poznan strategic programme on technology transfer,¹⁵ drawing on the experiences gained and lessons learned from the climate technology transfer and finance centres and pilot projects of the fourth replenishment of the GEF. The source of information for the experiences and lessons learned is the mid-term evaluation reports of the projects.¹⁶ The TEC initiated its work and agreed to wait for further mid-term evaluation reports to be made available as part of the GEF report to the COP 23. The TEC decided to complete its updated evaluation report in 2018.

Emerging and cross-cutting issues

Loss and Damage

25. As a follow up to the initial engagement with the Executive Committee on the Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts (Executive Committee) in 2016, the TEC in this year explored further potential for collaboration that is mutually beneficial to both the TEC and the Executive Committee, taking into consideration relevant work undertaken by the TEC and any relevant information related to loss and damage. The TEC prepared recommendations for entry points for

¹⁴ These criteria were: (i) Cluster D - Delivery and effectiveness of financial resources: Enabling environments for catalyzing investment, and the transfer of, environmentally sound technologies that mitigate greenhouse gas emissions, and for enhancing resilience to climate change; and (ii) Cluster E - Results and impacts achieved with the resources provided: Technology transfer.

¹⁵ FCCC/SBI/2015/22, paragraph 79.

¹⁶ FCCC/SBI/2015/22, paragraph 78.

collaboration between the two bodies and communicated these recommendations to the Executive Committee as inputs to the development of activities for the Executive Committee's five-year rolling workplan.

Development and enhancement of endogenous capacities and technologies

26. In response to decision 1/CP.21, paragraph 66 (b), the TEC initiated the consideration of the issue of development and enhancement of endogenous capacities and technologies, by exploring the concept and scope of endogenous capacities and technologies. + *place holder for further information to be added resulting from the deliberations at TEC15*.

Innovation and research, development and demonstration

27. In response to a COP 21 mandate,¹⁷ the TEC included activities on RD&D in its 2016-2018 workplan. In 2017, the TEC took forward this work by publishing a working paper: "Enhancing financing for the research, development and demonstration of climate technologies".¹⁸ In this, the TEC highlights ways that national and international actors may enhance financing of climate technology RD&D activities to respond to urgent climate and sustainable development challenges. + *place holder for further information to be added resulting from the deliberations at TEC15*.

28. The TEC also held a special event on technological innovation and climate change.¹⁹ The event explored how technological innovation can support the implementation of nationally determined contributions and mid-century strategies. The event was opened by Ms. Patricia Espinosa, UNFCCC Executive Secretary, H.E. Ms. Ségolène Royal, President of the UN Climate Change Conference COP 21, and Mr. Michael Rantil, TEC Chair. More than 100 experts from a broad range of backgrounds participated in the event, which took place during the May Bonn Climate Change Conference.

29. Based on the aforementioned working paper, the special event and other previous work, the TEC prepared a TEC Brief on how innovation can support the implementation of NDCs and mid-century strategies.²⁰ The TEC will launch this TEC Brief at a COP 23 sideevent. On this basis, the TEC prepared key messages and recommendations to COP 23 on innovation and RD&D (see chapter III.C and annex XX).

30. Furthermore, the TEC began mapping enabling environments and barriers as reported in NDCs, CTCN requests and TNAs. It aims to identify policies and strategies to improve enabling environments and address barriers. It will continue this work in 2018.

Mitigation

31. In response to decision 1/CP.21, paragraph 109(c) and paragraph 111, the TEC, hosted a thematic session on "Innovative policy and technology solutions for sustainable urban development" during TEM on mitigation in May 2017. During the session, key actors discussed how innovative approaches to urban planning, policies and technology solutions can deliver emission reductions and generate sustainable development benefits in cities.

32. In response to decision 1/CP.21, paragraph 113, the TEC at TEC14 discussed its future engagement in the mitigation technical examination process and agreed to provide inputs to the assessment of the process to improve its effectiveness (see annex XX). + place holder for further information to be added resulting from the deliberations at TEC15

33. The TEC prepared a technical paper²¹ and held, in conjunction with TEC 14, a thematic dialogue on industrial energy efficiency and material substitution in carbonintensive sectors.²² The dialogue provided opportunity for participants to deepen the understanding on measures and technologies for industrial energy efficiency, its potentials and limitations, undertaken by various industries partnerships and programmes, to identify

¹⁷ Decision 1/CP.21, paragraph 66(a).

¹⁸ http://unfccc.int/ttclear/docs/TEC_RDD%20finance_FINAL.pdf.

¹⁹ http://unfccc.int/ttclear/events/2017_event2.

 $^{^{20}}$ (Link to brief, if possible).

²¹ http://unfccc.int/ttclear/misc_/StaticFiles/gnwoerk_static/TEC_tab_1/a798b4bf040943a1a97b896db 24ecde1/84f5bf5d5d64429196ddbe5e0ea4d08c.pdf.

²² http://unfccc.int/ttclear/events/2017_event1.

existing policy options, needs and actions related to this field, with a focus on financing, training, and co-benefits aspects deriving from these measures, to share lessons learned and best practices and to identify ways to strengthening energy efficiency measures to replicate and upscale the implementation of technologies for energy efficiency.

34. As a result of thematic dialogue, the TEC produced a TEC Brief on industrial energy efficiency and material substitution in carbon-intensive sectors.²³ The TEC Brief outlines the challenges and needs in the context of energy and material efficiency improvements in industry, provides a revision of best practices and lessons learned, and highlights success factors as well as the roles of different stakeholders in the process of enhancing industrial energy efficiency. The TEC also produced executive summaries for targeted stakeholders in this area. + *place holder for further information to be added resulting from the deliberations at TEC15*. The TEC will launch the brief and executive summaries at a COP 23 side-event. Based on this work, the TEC prepared key messages and recommendations to COP 23 on industrial energy efficiency (see chapter III.C and annex XX).

35. The TEC also engaged with the High-level Climate Champions and provide inputs on potential collaboration that are mutually beneficial to the work of the TEC and Marrakesh Partnership for Global Climate Action + *place holder for further information to be added resulting from the deliberations at TEC15*

Technology needs assessments

Guidance on the preparation of technology action plans

36. In response to decision 17/CP.20 paragraph 13 and decision 1/CP.21, paragraph 5, the TEC produced a guidance on how the results of the TNAs, in particular the TAPs, can be developed into projects that can be ultimately implemented.²⁴ The guidance has been consequently used by the countries of the Phase II TNA project, and the TAPs made in accordance with the guidance will be available by the end of 2017.

Aligning TNAs with the process to formulate and implement national adaptation plans

37. In response to COP decision 3/CP.21, paragraph 5, the TEC considered, in collaboration with the CTCN, the AC and the Least Developed Countries Expert Group (LEG), how Parties could be helped to align their TNAs with the process to formulate and implement NAPs. At TEC 14 the TEC considered an initial drafts of the paper, prepared in collaboration with the CTCN, the AC and the LEG on aligning TNAs with the process to formulate and implement NAPs. + *place holder for further information to be added resulting from the deliberations at TEC15*.

Draft methodology on monitoring TNA results

38. The TEC prepared a draft methodology on how to monitor the TNA results, including scope and the approach of themonitoring, with a view to showcasing success stories. The TEC 14 agreed that a methodology for tracking implementation of TNA results may be developed with a view to integrating it be included in the existing TNA guidance. A draft methodology was discussed with several TNA countries with a view to produce a TAP tracking methodology in late summer 2017 for consideration by the TEC-15. + *place holder for further information to be added resulting from the deliberations at TEC15*.

Activities to support the implementation of the Paris Agreement

39. In response to COP decision 1/CP.21, paragraph 69, the TEC considered, in collaboration with the CTCN, approaches for preparing the annual report to the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA). At TEC 14, the TEC agreed that the TEC and the CTCN should prepare only on joint annual report that captures their activities to support the implementation of the Paris Agreement and the Convention as specified in relevant decisions and provisions of the COP and the Paris Agreement.

²³ (Link to brief, if possible).

²⁴ http://goo.gl/upe0xu.

40. The following are the activities undertaken by the TEC in 2017 to support the implementation of the Paris Agreement:

(a) In response to decision 1/CP.21, paragraph 66 (b), the TEC initiated the consideration of the issue of development and enhancement of endogenous capacities and technologies, by exploring the concept and scope of endogenous capacities and technologies (see paragraphs XX above);

(b) In response to decision 1/CP.21, paragraph 66 (a), the TEC included activities on RD&D in its 2016-2018 workplan and took forward this work in 2017 (see paragraphs XX above).

Other

41. In response to decision 12/CP.21, paragraph 2, the TEC and and the Advisory Board of the CTCN continued to work on and agreed to updated procedures for preparing the joint chapter of the joint annual report to the COP, as contained in Annex XX.

42. To maintain effective communication and collaboration between the two bodies, the Chairs and Vice-Chairs of the TEC and the Advisory Board of the CTCN continued to attend and actively participate in the meetings of the two bodies.

3. Collaboration with institutions and other stakeholders

43. The TEC continued interacting and collaborating with institutions and other stakeholders through various means, including: inviting Party observers and observer organizations to participate in meetings of the TEC; inviting experts to participate in a thematic dialogue; inviting stakeholders to participate in various task forces of the TEC; collaborating and regularly communicating with institutions and other bodies, such as the AC, the CTCN, the Executive Committee, the GCF, the GEF, the LEG and the SCF.

44. In response to an invitation by SBI 45 to the TEC to participate in the first meeting of the Paris Committee on Capacity-building organised in conjunction with forty-sixth session of the subsidiary bodies (SB 46), the TEC presented its work related to NDCs and capacity-building.

45. On behalf of the TEC, the Chair and the Vice Chair of the TEC participated in other meetings and events, such as: the 14th meeting of the Board of the GCF, the UNFCCC Technology Mechanism side event at COP 22, the first annual meeting of the GCF with the thematic bodies of UNFCCC, the High-Level Champions' reflection on the way forward at COP 22 and consultation on the work programme of the Marrakech Partnership at the SB 46, a side event on catalysing the implementation of NDCs in the context of the 2030 Agenda through South-South Cooperation, the SBSTA research dialogue.

4. Communication and outreach

46. In 2016, the TEC agreed on a communications and outreach strategy with the aim of enhancing the visibility of the TEC's output. Consistent with this, in 2017 the committee communicated its work and outreached to its key stakeholders through written, oral and electronic means.²⁵ This included through a collaboration with the Energy Efficiency Magazine for COP 23 and the use of social media, promoting its activities on Facebook and Twitter using the hashtag #climatetech.²⁶ The TEC also collaborated with the CTCN to conduct joint communication and outreach activities. This included through the CTCN knowledge management system, the UNFCCC technology website TT:CLEAR and social media.

47. To support the TEC in enhancing its communication and outreach efforts, the secretariat has continued to enhance TT:CLEAR. The website contains all the latest information on the TEC, including an overview of its work, documents, and key messages to the COP.

²⁵ TEC progress of work: http://unfccc.int/ttclear/templates/render_cms_tabbed?TEC_WRK.

²⁶ https://twitter.com/search?q=%23climatetech&src=typd.

C. Challenges and lessons learned

48. COP 22 invited the TEC and the CTCN to include information in the respective chapter of their future joint annual reports on challenges and lessons learned in implementing their respective mandates.

49. + place holder for further information to be added resulting from the deliberations at TEC15.

D. Key messages to the Conference of the Parties

50. Building on the work carried out in 2017, the TEC wishes to deliver the following key messages to COP 23. These key messages are also contained in the annex XX to this report and TT:CLEAR.²⁷

51. + place holder for further information to be added resulting from the deliberations at TEC15.

IV. Report on the activities and performance of the Climate Technology Centre and Network in 2017

52. To be inserted ...

²⁷ http://unfccc.int/ttclear/policies.

Annex II

I. Key messages of the Technology Executive Committee

1. To be inserted ...

II. Inputs to the assessment of the existing technical examination process on mitigation so as to improve its effectiveness

2. To be inserted ...

III. Procedures for preparing the joint annual report of the Technology Executive Committee and the Climate Technology Centre and Network to the Conference of the Parties

3. To be inserted ...

IV. Key messages of the Climate Technology Centre and Network

4. To be inserted ...