

**Twelfth meeting of the Adaptation Committee  
Bonn, Germany, 19-22 September 2017**

**Methodologies for assessing adaptation needs with a view to assisting developing countries, without placing undue burden on them**

**Recommended action by the Adaptation Committee**

The Adaptation Committee (AC), at its 12th meeting, will be invited to consider the information contained in this document. It may wish to include the recommendations contained in section 3 of this document into its annual report to the 23rd session of the Conference of the Parties (COP).

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## 1. Background, context and scope of the note

1. The Conference of the Parties (COP), by its decision 1/CP.21, requested the Adaptation Committee (AC), taking into account its mandates and its second three-year workplan, to **consider methodologies for assessing adaptation needs with a view to assisting developing country Parties, without placing an undue burden on them**, and with a view to preparing recommendations for consideration and adoption by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement at its first session (CMA1).
2. At its 10<sup>th</sup> meeting, the AC considered a desk review of existing methodologies for assessing adaptation needs and their current applications and limitations. This included needs for adaptation action and support (finance, technology and capacity) and the information is contained in document AC/2016/13.<sup>1</sup> Based on discussions at its 10<sup>th</sup> meeting, the AC agreed to further consider this issue, including through the convening of an expert meeting and a call for submissions from Parties and other stakeholders to inform its work on this topic.<sup>2</sup>
3. At its 11<sup>th</sup> meeting, the AC considered document AC/2017/4,<sup>3</sup> prepared on the basis of the discussions at AC 10 and the twelve submissions received.<sup>4</sup> It requested the secretariat, with input from the NAP taskforce, to further revise the document and use it as background information for the small expert meeting held at the margins of SB 46.
4. The expert meeting took place on 13 May 2017. It was facilitated by Mr. Kishan Kumarsingh (Trinidad and Tobago) and attended by 10 experts, including representatives of the AC, the Consultative Group of Experts on National Communications from Parties not included in Annex I to the Convention, the Global Environment Facility Secretariat, the Green Climate Fund Secretariat, the Least Developed Countries Expert Group, the Stockholm Environment Institute, the United Nations Development Programme and United Nations Environment.<sup>5</sup>
5. Based on the discussion at the expert meeting the document has been further refined. It contains the following elements:
  - a) A summary of existing methodologies for assessing adaptation needs, including key strengths, gaps and challenges (section 2);
  - b) Guiding principles for methodologies for assessing adaptation needs (section 3); and
  - c) Draft recommendations for consideration and adoption by the COP and/or CMA1 (section 4).
6. During the expert meeting it was noted that adaptation needs assessments should be carried out in the context of the adaptation goal, as noted in the Paris Agreement, with a view to assessing needs associated with (1) enhancing adaptive capacity, (2) strengthening resilience and (3) reducing

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<sup>1</sup> This document is available at [unfccc.int/files/adaptation/groups\\_committees/adaptation\\_committee/application/pdf/ac10\\_4b\\_meth\\_adapt\\_needs.pdf](http://unfccc.int/files/adaptation/groups_committees/adaptation_committee/application/pdf/ac10_4b_meth_adapt_needs.pdf).

<sup>2</sup> Details on the call for submissions are available at [unfccc.int/10005](http://unfccc.int/10005).

<sup>3</sup> This document is available at [unfccc.int/files/adaptation/groups\\_committees/adaptation\\_committee/application/pdf/ac11\\_6b\\_methodologies.pdf](http://unfccc.int/files/adaptation/groups_committees/adaptation_committee/application/pdf/ac11_6b_methodologies.pdf).

<sup>4</sup> A summary of these submissions is annexed to document AC/2017/4.

<sup>5</sup> Experts from the Technology Executive Committee and the Standing Committee on Finance were invited but unable to attend.

vulnerability to climate change. Experts also noted that the purpose of performing needs assessments needs to be clear from the outset.

## 2. Existing methodologies for assessing adaptation needs: status, challenges and gaps

7. As the initial desk review suggested, a wide range of methodologies have been developed and applied to assess all aspects of adaptation needs, including needs for action and needs for financial, technological and capacity-building support. The submissions received also provided a rich list of examples of methodologies being used to assess adaptation needs in a variety of contexts. These methodologies were developed and applied for assessments serving various specific purposes that might have a limited use in assessing all aspects of adaptation needs comprehensively. Table 1 provides an overview of the status, remaining gaps and challenges of methodologies for assessing adaptation needs.

8. The AC may also wish to take note of the 2013 PROVIA Guidance on Assessing Vulnerability, Impacts and Adaptation to Climate Change,<sup>6</sup> and of the UNFCCC “Compendium on methods and tools to evaluate impacts of, and vulnerability and adaptation to, climate change” which was developed by the secretariat in response to a mandate by Parties. The compendium was last updated in 2005 and a revision may be a useful tool in the context of supporting Parties in the assessment of their adaptation needs.<sup>7</sup>

**Table 1. Summary of existing methodologies for assessing adaptation needs<sup>8</sup>**

Methodologies	Status	Gaps and challenges
<b>Action</b>	<ul style="list-style-type: none"> <li>• A number of needs assessments relating to adaptation action, including in developing countries, have been carried out at sectoral, local/national, regional and international levels, typically following top-down, scenario-driven impact assessment methodological framework, accompanied by bottom-up vulnerability assessment approaches;</li> <li>• Three groups of assessment methodologies and/or tools have been identified: 1. Complete frameworks and supporting toolkits; 2. Cross-</li> </ul>	<ul style="list-style-type: none"> <li>• Heavy dependence on data and information (observations and projections, for climatic and socio-economic variables) which is often unavailable or incomplete in developing country Parties;</li> <li>• Results on adaptation action needs are highly subjective to the selection and choice of baseline, scales, timeframe and scenarios;</li> <li>• Areas for which methodologies are insufficient: <ul style="list-style-type: none"> <li>– Indicators/metrics for different types of adaptation needs that are amenable to aggregation at national level and comparison across sectors, geographies and governance structures</li> <li>– Adaptation needs arising from transboundary impacts of climate change</li> </ul> </li> </ul>

<sup>6</sup> <sei-international.org/mediamanager/documents/Publications/Climate/PROVIA-guidance-Nov2013-low-res.pdf>.

<sup>7</sup> The compendium is available at <unfccc.int/files/adaptation/methodologies\_for/vulnerability\_and\_adaptation/application/pdf/consolidated\_version\_updated\_021204.pdf>.

<sup>8</sup> For details see the desk review contained in document [AC/2016/13](#).

	<p>cutting issues and multisector approaches; and</p> <p>3. Sector-specific tools;</p> <ul style="list-style-type: none"> <li>• A number of methodological frameworks placing adaptation within the general national development process have been developed and applied, particularly by development agencies, but also a number of developing countries, to assess needs for adaptation action;</li> <li>• More recently, a risk management framework has been used to assess needs for adaptation action to better support decision making under uncertainties.</li> </ul>	<ul style="list-style-type: none"> <li>– Consideration of social, cultural and geographical aspects</li> </ul>
<b>Financial support</b>	<ul style="list-style-type: none"> <li>• Financial flow and investment analyses have been carried out to estimate the costs for sector- and/or economy-wide adaptation action.</li> </ul>	<p>Current financial support needs assessments lack one or more of these elements:</p> <ul style="list-style-type: none"> <li>– Transparency related to the use and documentation of the underlying costing methods;</li> <li>– Methodological robustness, i.e. they are very sensitive to changes in discount rates, baselines, timescales, spatial scales and boundaries;</li> <li>– Consideration of opportunity/transaction costs, which leads to an underestimation of the cost and therefore the overall financial support needs;</li> <li>– Ability to assess resources that are potentially available to support adaptation (as opposed to economic/cost assessments of adaptation interventions)</li> </ul>
<b>Technology support</b>	<p>A step-wise methodological framework has been developed and used in Technology Needs Assessments (TNAs), including multi-criteria analysis being used for prioritizing adaptation technology options.</p>	<ul style="list-style-type: none"> <li>• Difficulties in considering local context and conditions (e.g. physical and/or technical prerequisites) relevant to the feasibility and suitability of certain technology solutions.</li> </ul>

<b>Capacity-building support</b>	Capacity-building support needs have been identified at individual, institutional and system levels, usually based on qualitative approaches.	<ul style="list-style-type: none"> <li>• Given the highly context-specific and qualitative nature of the needs identified, it is difficult to aggregate capacity-building needs across levels within a country. Hence they are challenging to track and report on progress.</li> <li>• It is difficult to ensure that the capacity built does not erode over time.</li> <li>• Specific guidance and capacity building is needed to access financial support.</li> </ul>
<b>General</b>	<ul style="list-style-type: none"> <li>• <b>Gaps in application capacity:</b> many developing country Parties lack in the required technical and institutional capacity to effectively apply some existing methodologies. Examples in this regard may include: some economic analysis tools (e.g. computable general equilibrium models) require substantial technical expertise currently unavailable in many developing country Parties; many methodological frameworks require close collaboration and coordination among institutions at different levels which remains a challenge in many countries</li> <li>• <b>Gaps in accessibility</b> related to access to commercial and non-commercial assessment tools. Examples of such issues include the need for better and more effective dissemination of existing methodologies and assessment tools, for more concessional and for open access to commercial assessment tools;</li> <li>• <b>Gaps in relevance and applicability</b> related to the appropriateness of the existing methodologies in relation to the task at hand. Examples of such challenges include the scales at which the assessments are conducted are not aligned with the scales at which adaptation planning and practices (hence adaptation needs) occur; key parameters/assumptions “hard wired” within assessment models do not necessarily apply to the location/context of interest; qualitative insights and experiences are difficult to be incorporated into quantitative methods and tools, including for vulnerability assessment, and needs for adaptation support etc.</li> <li>• <b>Gaps in assessing the risk of indirect and/or cross-border impacts.</b><sup>9</sup> Understanding, preparing for, and adapting to cross-border effects represents a dimension of adaptation that is not yet well recognized by Parties.</li> </ul>	

### 3. Guiding principles for methodologies for assessing adaptation needs

9. Based on the above considerations of the status of, and challenges and gaps in, existing methodologies for assessing adaptation needs, the AC highlights the following guiding principles for the development, identification, selection, application and refinement of methodologies for assessing adaptation needs, in line with the provisions of Article 7 of the Paris Agreement:

<sup>9</sup> Mediated through global trade, migration, finance, and biophysical processes, climate change impacts in one region can adversely affect communities and societies far across the globe, including through price hikes on the world food market, flows of domestic and international refugees, and diminished availability of transboundary water.

- a) Relevance – Methodologies should be capable of facilitating assessments leading to information that is meaningful to decision makers and practitioners, including at the appropriate spatial scale and for the relevant time horizon;
- b) Flexibility – Methodologies should accommodate a wide range of data availability, technical and institutional capacities in developing country Parties;
- c) Practicality – Methodologies should focus on indicators/metrics that are relatively easy to measure, and ideally could be aggregated and compared across scales;
- d) Applicability and cost – Methodologies should be applicable with limited financial, technical and institutional capacity to not place an undue burden on developing country Parties;
- e) Adaptability and adoptability – Methodologies should be adapted and adopted easily to suit national and local circumstances;
- f) Being facilitative of the next step – Methodologies are not an end in themselves but should be useful towards taking further action;
- g) Participation and inclusiveness – Methodologies should ensure consideration of all relevant stakeholders;
- h) Clarity – The purpose for performing a needs assessment should be clear.

#### **4. Draft recommendations on methodologies for assessing adaptation needs**

10. The AC, recognizing the principles for methodologies for assessing adaptation needs contained in AC/2017/12, recommends that the CMA consider the following recommendations:<sup>10</sup>

- a) All relevant entities in a position to do so, including the private sector, to address gaps in the accessibility of existing methodologies for assessing adaptation needs, gaps in essential data, data resolution and information required in existing methodologies, gaps in application capacity, gaps in coverage, and the lack of guidance regarding the selection of decision-making tools;
- b) The SBSTA to request the Nairobi work programme, in collaboration with users and developers of relevant methodologies, including academia and the private sector, to develop, and periodically update, an inventory of relevant methodologies for assessing adaptation needs, using the information contained in the UNFCCC compendium of methods and tools mentioned above as a starting point;
- c) The SBSTA to request the NWP to document and disseminate good practices and lessons learned with relation to the development and application of methodologies for assessing

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<sup>10</sup> Further background and details on these recommendations are available in the AC's report to COP 23, contained in document AC/2017/2, as well as in the following background documents considered by the AC at its 10<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> meetings, respectively:

- AC/2016/13, available at <unfccc.int/files/adaptation/groups\_committees/adaptation\_committee/application/pdf/ac10\_4b\_meth\_apt\_needs.pdf>.
- AC/2017/4, available at <unfccc.int/files/adaptation/groups\_committees/adaptation\_committee/application/pdf/ac11\_6b\_methodologies.pdf>.
- AC/2017/12, available at <unfccc.int/10375>.

adaptation needs and to make the information available online at the Adaptation Knowledge Portal;<sup>11</sup>

- d) The SBSTA to invite the IPCC and/or PROVIA to further improve the relevance and applicability of existing methodologies for assessing adaptation needs, including methods and tools for assessing adaptation support needs, and to develop relevant indicators/metrics for adaptation needs, including metrics that are amenable to aggregation at national level and comparison across sectors, geographies and governance levels;
  - e) The SBSTA to invite the World Meteorological Organization, through its Global Framework for Climate Services, to inform the COP about its activities to improve the availability and accessibility of comprehensive climate observational data, and how it facilitates the provision and dissemination of most up to date climate model projections;
  - f) The COP to invite the Paris Committee on Capacity-building and providers of capacity-building to consider including the provision of capacity building to support developing country Parties in applying methodologies for assessing adaptation needs in their larger support for building capacity to adapt.
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<sup>11</sup> <[www4.unfccc.int/sites/NWP/Pages/Home.aspx](http://www4.unfccc.int/sites/NWP/Pages/Home.aspx)>.