## WORKSHOP ON PRE-2020 AMBITION

ENERGY TRANSFORMATION, INCLUDING SCALING-UP RENEWABLE ENERGY, ENHANCING ENERGY EFFICIENCY AND THE CONSIDERATION OF CARBON CAPTURE AND STORAGE<sup>1</sup> Friday, 7 June 2013, 10 a.m.–1 p.m.

Take home points from the Facilitator Mr. Hussein Alfo Nafo (Mali)

Participants in the workshop on pre-2020 ambition: energy transformation held on Friday, 7 June 2013, engaged constructively in an in-depth discussion and shared information on many aspects of the proposed topics. Delegates expressed their views and made comments on the three opening presentations.<sup>2</sup> They also reflected on the questions proposed for discussion: a) what action can be undertaken at the national level to increase ambition?, b) what incentives are needed for Parties to undertake these actions?, c) what barriers do Parties face and how do they overcome them? and d) how can cooperative initiatives contribute to strengthening national action? I would like to highlight some of the many points I heard:

- 1. There is a wide range of mitigation actions in energy that are already being implemented at the international, national and sub-national levels. There are many opportunities to further scale up these actions through promotion of the use of renewable energy sources, energy efficiency and the consideration of carbon capture and storage. A sizeable mitigation potential remains untapped, in particular in the use of renewable energy sources and energy efficiency, especially in residential and commercial buildings, industry, transport and electrical appliances.
- 2. Urgent and ambitious action is needed to address energy sector carbon intensity that remained stable between 2000 and 2010 and should decrease by 40–50 per cent over the next few years in order to achieve the 2°C goal, according to the International Energy Agency. Increase in the use of renewable energy sources and enhancing energy efficiency can contribute to that end. However, the mitigation potential in these areas alone is not sufficient to bridge the emissions gap; all options appropriately addressing fossil fuel emissions are deemed important to narrow the gap and need to be considered, including carbon capture and storage, which needs to be further demonstrated on a larger scale.
- 3. In this context, a major transformation towards less carbon-intensive and more efficient energy systems is required at the global level. However, such transformation will not happen without putting in place robust and long-term policy and regulatory frameworks, creating understanding and appropriate capacity and skills among citizens and decision-makers, and providing scaled up financing and investment. At the national level, the required shift in economic development pathway implies a transition from resource-based growth to efficiency-based growth that calls for innovative policy solutions and diverse approaches.
- 4. The ways to utilize the full mitigation potential in energy in a comprehensive way should be considered in the context of the objective of the Convention, and in accordance with its principles and provisions and in line with national sustainable development priorities taking into account national circumstances of Parties. There is a need to accelerate and leverage mitigation actions through replication and scaling up best practices of national action taking into account various associated benefits and incentives for further action.
- 5. Mitigation and adaptation actions should be treated in an integrated way and should enjoy equal political attention and commensurate financing. Co-benefits, such as reliable access to sustainable energy, cost savings, job creation, poverty alleviation, environmental protection, reduction of air

<sup>&</sup>lt;sup>1</sup> This workshop under workstream 2 is organized as a part of series of ADP workshops in 2013, including those held during the first part of the second session of ADP held in Bonn from 29 April to 3 May 2013 that were focused on low-emission development opportunities, and mitigation and adaptation opportunities related to land use.

<sup>&</sup>lt;sup>2</sup> Presentations delivered at the workshop are available at <a href="http://unfccc.int/meetings/bonn\_jun\_2013/workshop/7645.php">http://unfccc.int/meetings/bonn\_jun\_2013/workshop/7645.php</a>>.

pollution and associated health benefits, etc., represent a major driving force behind national actions that also bring sizeable mitigation benefits.

- 6. Several Parties recognized that market drivers alone are not sufficient to promote the use of renewable energy and energy efficiency, and that it is important to recognise the role of the public sector, in particular in price regulation for energy resources, setting efficiency standards, introduction of carbon taxes and feed-in tariffs, etc., and the role of the private sector, in particular in supporting innovation and commercialization of the technology use and mobilization of investment.
- 7. Developing countries raised concerns related to the lack of easily accessible low-cost alternatives to the use of fossil fuels to cover growing electricity demand as well as poor energy system infrastructure, high electricity losses in transmission systems, low efficiency of energy generation facilities and lack of energy storage capacities. The limited reliability and high cost of renewable energy technologies and energy efficiency solutions affect absorptive capacity of energy systems and limit technology diffusion.
- 8. In this context, the role of cooperative initiatives (as exemplified by the Sustainable Energy for All) becomes important in mobilizing various stakeholder groups and providing incentives for enhanced action leading to emission reductions by promoting climate-friendly energy sources. The cooperative initiatives could contribute to facilitating transfer of mitigation technologies; harnessing significant potential of action at different levels, including communities and cities; and strengthening cooperation across thematic areas that help promoting energy transformation.
- 9. There are factors that help strengthening and promoting action that contribute to achieving transformational change in energy, such as:
  - > Creating enabling environments through, inter alia, the development and implementation of policy frameworks, the introduction of regulatory, economic, financial and other instruments, as well as access to sufficient finance, technology and capacity building;
  - Recognizing co-benefits of actions through awareness, communication and education programmes;
  - ➤ Facilitating delivery of appropriate and adequate means of support, including through the institutional arrangements under the UNFCCC (e.g. Green Climate Fund, Technology Executive Committee and Climate Technology Centre and Network);
- 10. The barriers preventing the full realization of the mitigation potential in energy can be overcome by well-designed energy and climate change policies. Examples of such barriers include:
  - ➤ Insufficient anchoring of climate change considerations in domestic development strategies;
  - Misaligned incentives inhibiting win-win solutions in energy supply and demand;
  - ➤ Lack of knowledge and information on opportunities, options and benefits related to policies, actions and support to promote further mitigation action;
  - Lack of adequate means of financial support, secured access to capital, and economic and financial instruments, in particular to address high up-front capital costs, long-payback periods and perceived investment risks;
  - ➤ Policies that may inhibit access to technologies and the lack of suitable enabling environments for technology development and transfer, including matters related to intellectual property rights.
- 11. Parties have encouraged more focused discussion and identified potential areas for further work at the technical level by the ADP, including on options and ways that can help to:
  - Create the right enabling environment for enhancing mitigation action;
  - ➤ Increase the provision of finance, technology and capacity building to support actions by developing countries;

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- Overcome the key barriers that impede additional mitigation actions by developing countries;
- > Share information on best practices and experience in relation to renewable energy, energy efficiency, and sustainable urban planning;
- > Overcome high up-front capital costs and long payback periods due to perceived investment risk;
- > Identify the domestic and international policy settings to be in place in order to bridge the commercial gap of carbon capture and storage.