Technology needs and solutions identified in TNAs for sustainable urban developments in developing countries

Technical Expert Meetings on Mitigation
Thematic session on innovative policy and technology solutions for sustainable urban development
9 May 2017

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Chair of the Technology Executive Committee

Speaking points:

- Good afternoon, welcome to all to the thematic session on innovative policy and technology solutions for sustainable urban development. On behalf of the TEC, I would like to thank the UNFCCC secretariat, the SBI & SBSTA Chairs, and the High-Level Champions for their invitation for the TEC to host this session.

- Since 2014, the TEC has alwasy participated in the Technical Expert Meetings. In Paris, Parties requested the TEC to engage in the Technical Examination Process (TEP) to facilitate the implementation of policies, practices and actions that have been identified through this process.

- Our contribution has evolved from participating at TEMs in 2014 and 2015, providing potential topics for future TEMs in 2016, and hosting a thematic session of TEM in this year.

Speaking points:

- Let me first briefly introduce you to the TEC.
- {READ THE SLIDE}
- For example, in the context of innovation, the TEC conducted a workshop on national system of innovation in 2014, published a TEC Brief in 2015 and provide its key messages on national system of innovation to COP 21.

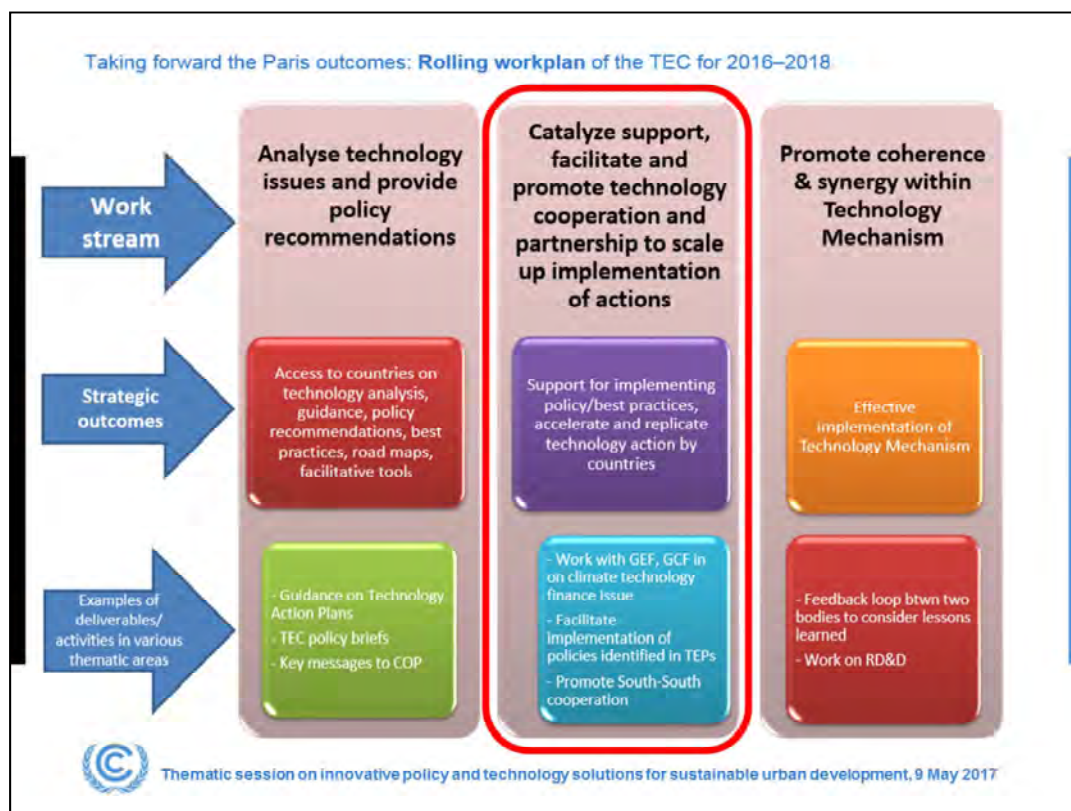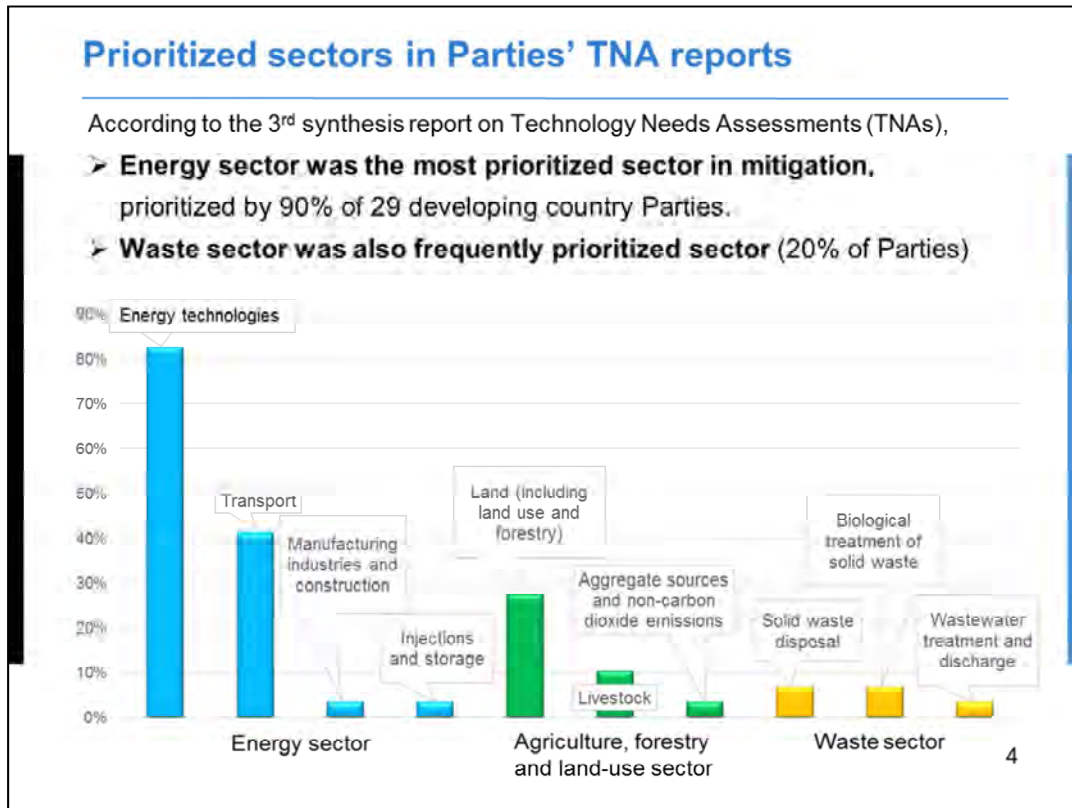Taking forward the Paris outcomes: **Rolling workplan** of the TEC for 2016–2018

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Speaking points:

- The TEC undertakes its work according to its rolling workplan, which contains 3 work streams.

- Under the second work stream, the work of the TEC aims to catalyze support, facilitate and promote technology cooperation and partnership to scale up implementation of actions.

- This fits well with what we are doing now, which is to seek cooperation with relevant initiatives, stakeholders and organizations, and promote cooperation across technology activities.

Prioritized sectors in Parties' TNA reports

According to the 3rd synthesis report on Technology Needs Assessments (TNAs),

➢ **Energy sector was the most prioritized sector in mitigation,** prioritized by 90% of 29 developing country Parties.

➢ **Waste sector was also frequently prioritized sector (20% of Parties)**
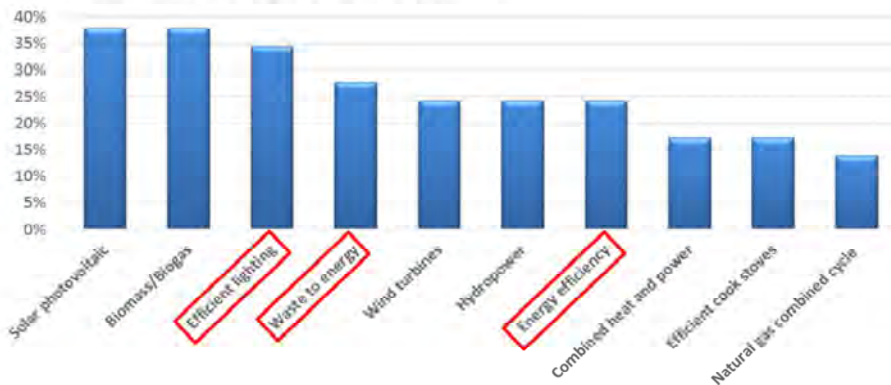
Speaking points:

- The Technology Needs Assessment is a country driven process where developing countries identify and prioritize their technology needs for mitigation and adaptation action.

- UNFCCC published the Third synthesis report on TNAs in 2013, which synthesized the information contained in the TNA reports of 31 developing country Parties. Out of the 31 Paries, 29 Parties prepared TNA reports on mitigation.

- According to the report, the most prioritized sector in mitigation was enrgy sector, prioritized by 90% of the Parties. This sector included mainly energy industries and transport, as you can see in the chart here.

- In the context of urban development, waste sector was also frequently prioritized sector.

- Today we will hear about an example of an innovative approach to waste-to-energy.

United Nations Framework Convention on Climate Change

Energy related technologies

Most Parties (82% of Parties) prioritized energy-related technologies, **including those relevant to urban development:**

i. **Technologies relating to efficient lighting**, such as LED and compact fluorescent light,

ii. **Waste to energy**, such as solid waste combustion, and landfill gas utilization, and

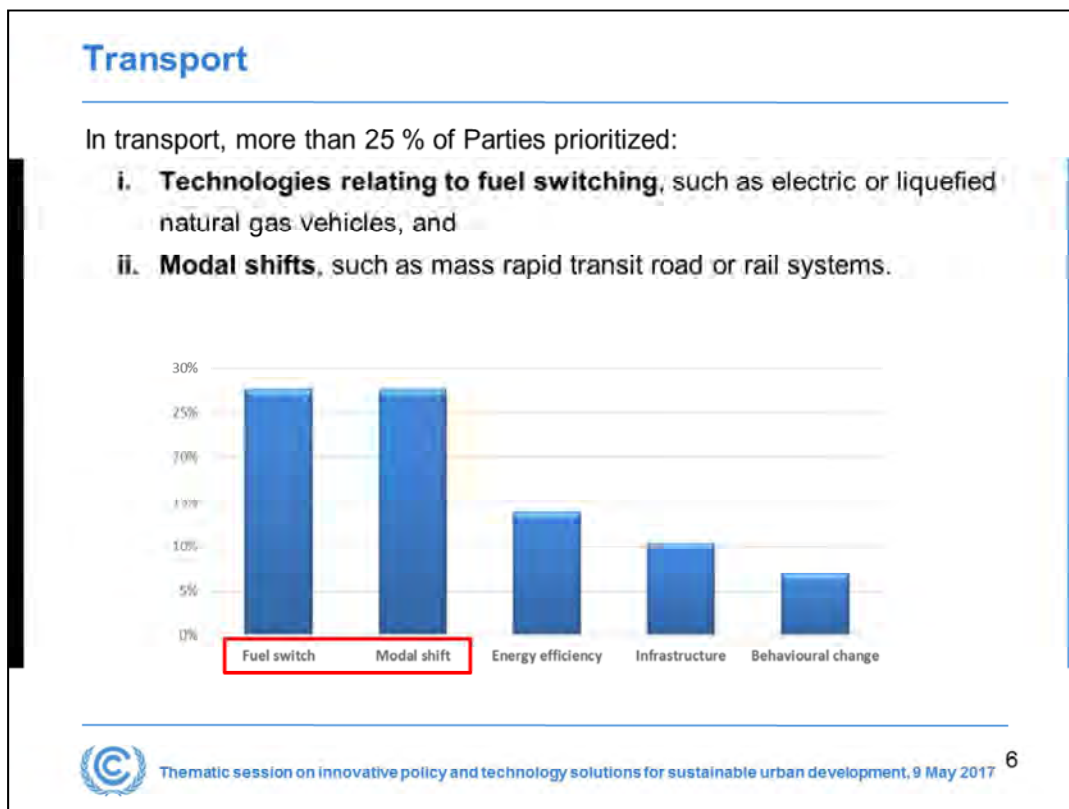iii. **Energy efficiency**, such as energy efficient construction equipment and Insulation for exterior wall systems.
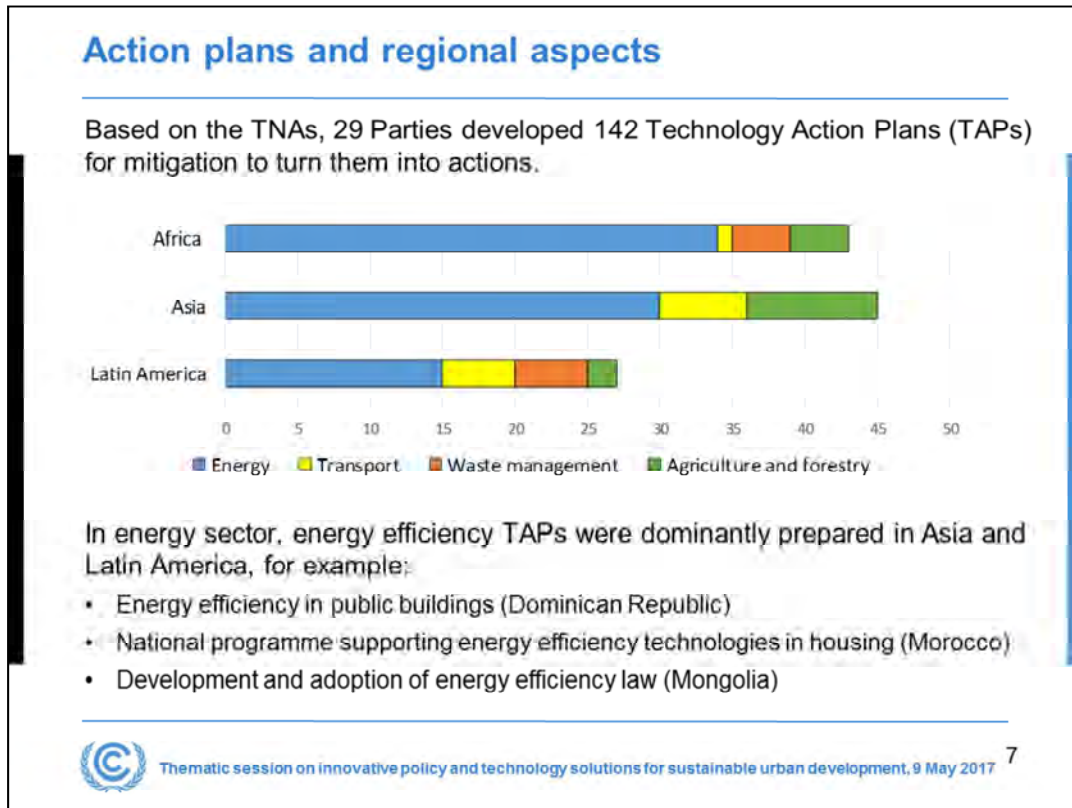
Speaking points:

- Going deeper into energy sector, ... {READ THE SLIDE}
- Today, we will hear about an example of an innovative approach to waste-to-energy-carbon capture storage plant, and also here about an innovative policy in improving energy efficiency of refrigeration and air conditioning for buildings.

Transport

In transport, more than 25 % of Parties prioritized:

i. **Technologies relating to fuel switching**, such as electric or liquefied natural gas vehicles, and

ii. **Modal shifts**, such as mass rapid transit road or rail systems.

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Speaking points:

- Moving to transport, ... {READ THE SLIDE}
- Just after my presentation, we will hear about an example of innovative approach on bus rapid transit systems in developing countries.

Speaking points:

- Through the TNA process, most of the Parties developed their Technology Action Plans (TAPs) for addressing barriers and accelerating the development and transfer of their prioritized technologies.

- This graph shows regional aspects of prioritized sectors identified in TAPs. Energy was the dominant sector for mitigation TAPs in all regions. In this sector, TAPs relating to energy efficiency were dominantly prepared particularly in Asia and Latin America, while in Africa renewable energy technologies were dominant. However, when you look at country level, you can find various solusions for each country.

- The graph also shows different tendencies of prioritised sectors among regions. Transport sector was prioritized in Asia and Latin America, while waste management sector was prioritized in Africa and Latin America.

Conclusions

- Developing countries have conducted Technology Needs Assessments (TNAs) to identify country-driven priorities for climate technologies, **including technologies related to urban development**.

- Based on the TNAs, developing countries have developed Technology Action Plans (TAPs) to begin implementing their priorities, in which **each region and country identified unique priorities**.

- **Innovative approaches and solutions which can be applied in different countries and regions are needed.**

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Speaking points:

- As a context to our further discussion, let me conclude by offering a fer points: ... {READ THE SLIDE}

- I hope this thematic session will provide a precious opportunity to discuss and identify ways of enhancing the scalability and replicability of the innovative policy and technology solutions for sustainable urban development, so that countries and stakeholders can learn how to introduce the innovative solutions to implement their technology needs and priorities.

- Complementary to this session, the TEC will hold a special event on innovation on Friday, 12 May in room Nairobi. This is one day event, which focuses on how innovation can support implementation of nationally determined contributions and mid-century strategies. I invite you all to attend the event.