1. What are the session key findings? What are the new Lesson(s) learned / Scientific progress (since AR5 release, if relevant)?

Following the content of the AR5 IPCC report, the session focused on the role of technological change to meet climate challenges. It is clear that the development/adaptation/absorption of technologies and their deployed at scale are needed to give development and climate benefits. Within the session, it was argued that this is not just a technical question, but one that requires to consider finance, economics, finance, market demand, policy in a local context as well. One key concept put forward was that the success of this process is inextricably linked with the ability to strengthen local human, organizational, and institutional capabilities. If we have to embark on this journey, we need strategic policies and processes specifically targeted to local capabilities. Specifically, all key stakeholders need to be targeted, including private sector, citizens, policy makers and private finance.

2. What are the major knowledge Gaps and Research Needs identified in the session?

The session pointed to the importance of understanding and leveraging the role of science and technology in development, with a specific focus on low carbon technology transfer. What can be learned from the literature is that each country has specific conditions, and intervention, technology diffusion and transfer need to be tailored to such conditions. As such, the lessons learned from OECD countries are not directly applicable to the rest of the world, since countries have their own socio-cultural contexts. A key approach is to establish, develop and strengthen the linkages between institutions and private sector, the market, engineering, science and policy.

For instance, the case of development of the market for PV solar home systems in Kenya is instructive of how artefacts and technology evolve with social practices and through donor policies. In Kenya, the development of solar batteries arose from technology used in cars, which was however inadequate to meet the technology requirements of PV. A modified battery (solar) battery was developed locally, manufactured through local industry, also thanks to feedback from customers and followers. Even ‘failed’ financial projects through micro-finance generated learning. 'Innovation
system builders’ acted as a repository for this learning and were to some extent able to co-ordinate the various other relevant actors within the network. Spillover effects developed over several decades of work that generated a lot of capabilities and linkages within the Kenyan solar PV innovation system. What is significant about that is that there are only a few key actors responsible for the change: lighting Africa, KEREI, KUSSCO LTD, SOLARMET: they got engaged, raised funding and made things happen.

3. Did the session discuss/identify promising approaches in the fields of Adaptation and Mitigation, or both?

As mentioned above, the session was centered around the idea that unless local capabilities, institutions and socio-economic realities are understood, leveraged and developed, any mitigation or adaptation strategy is bound to fail. Rather than focusing on a key or promising approach, the session pointed out the necessity to tailor interventions to local conditions.

Within this framework, it is crucial to strengthen local capabilities. The CTCN network within the UNFCCC has taken on this role and is trying to develop a network and provide support to national governments for this transition. Specifically, the focus is on technical assistance, as the topic of technology diffusion to developing countries just recently got the forefront of the agenda.

4. Are there take-home messages from the session?

Key concept put forward was that the success of this process is inextricably linked with the ability to strengthen local human, organizational, and institutional capabilities. If we have to embark on this journey, we need strategic policies and processes specifically targeted to local capabilities. Specifically, all key stakeholders need to be targeted, including private sector, citizens, policy makers and private finance. At the same time, we need to build on local institutions that are able to provide a strong foundation for ‘innovation system building.’

5. Are there Important Quotes from the session?

None to report.

6. Please include any other remark that you might have.

No additional comment.