

Main conclusions and recommendations of the International Conference on Innovation, Technology Transfer and Cooperation, 6 December 2022, Bangkok, Thailand

A. Introduction

- 1. The International Conference brought together about 170 participants from the Centre's Governing Council member States and other member States of ESCAP, including government officials, international experts, and other relevant stakeholders involved in urban governance, innovations and technologies related to climate change mitigation and adaptation.
- 2. The main discussions during the international conference were: innovative applications of climate technologies in cities; mechanisms to accelerate technology transfer, adoption and diffusion for climate resilient urban development; and panel discussion on strengthening regional cooperation for adoption of innovative technologies for climate resilient cities.

B. Summary of discussions

- 3. The conference underscored the role of innovation and technology in building climate resilience of cities that are major contributors to greenhouse gas emissions. It highlighted the need for partnerships and collective actions by governments including municipalities, civil society and research organizations to overcome the challenges being faced by cities due to climate change.
- 4. The conference emphasized the increasing role of adoption and diffusion of climate technologies and their scaling-up through regional cooperation. Key technologies discussed in the conference are rooftop grid-integrated solar photovoltaics, smart grids and microgrids, energy storage systems, electric vehicles among others.
- 5. Countries of the Asia-Pacific region have demonstrated the potential of innovative technologies in cities and urban areas. Examples are: Internet of Things for municipal waste disposal, weather forecasting using data analytics, analysis of real time data on air pollution, electric vehicle technologies, new energy storage and management technologies, microgrids and smart grids (India). Some other examples include demonstration plants for gasification, biogas, waste sorting systems for municipal solid wastes, and waste-to-gas production; early warning system for flood disaster preparedness (Thailand); and rooftop solar systems (India, the Islamic Republic of Iran).
- 6. The conference highlighted some good practices and lessons emerging from specific case studies. For instance, community-based campaigns with localized messaging and content are necessary to popularize rooftop solar systems.

- 7. It was suggested that there are wide possibilities of key technologies for clean and renewable energy transition in cities, but no one-size-fits-all solution. Integrated urban planning is essential for adoption of the new and emerging technologies in cities. For example, integration of land use and mass transit development can encourage public transport use and capture land values.
- 8. Countries are adopting various cross-cutting policy measures and approaches to address the challenges of urbanization. For instance, Thailand is adopting a Bio-Circular-Green approach to achieve its targets under its Nationally Determined Contributions. India is implementing policies such as the National Cooling Action Plan, the Smart Cities Mission and Atal Mission for Rejuvenation and Urban Transformation.
- 9. Sector-specific specific enabling policy measures have been introduced by countries in the region. Examples are: production-linked incentive schemes for electric vehicle charging stations (India); venture financing for start-ups, environmentally sound technologies, and commercialization of technologies developed by Government laboratories (Philippines); Feed-In-Tariff and bonus for rooftop solar systems (the Islamic Republic of Iran); Carbon Neutrality Act 2022, and National Carbon Neutrality Masterplan (the Republic of Korea).
- 10. For the sustainable transport sector in cities, good strategies and practices were highlighted in the conference. Key examples include: including: developing E-mobility roadmaps for cities; conducting contextual analysis of cities; formulating a comprehensive framework for low carbon urban mobility; integrated urban planning; sustainable urban mobility planning; prioritizing electrification options for land transport, among others.
- 11. Appropriate patent laws need to be formulated to contribute to the development of industries related to climate friendly technologies which would encourage technology transfer and diffusion. Supportive government policies should be introduced to enhance local industrial capacity to innovate and grow.
- 12. Collaboration and networking with multi-stakeholders (such as municipalities, local civil society organizations, academics, researchers from local universities, relevant government departments and agencies, and business and private sector) are essential to understand city situation analysis, identify key climate impacts, assess climate vulnerability of local communities, and climate resilience planning and development of climate action plans. Bottom-up climate actions could be more effective in addressing the challenges in cities.
- 13. Technology collaboration and partnerships should be driven very carefully using soft power such as trust and mutual benefits for both partners of a collaborative agreement.
- 14. Triangular and South-South cooperation have become key components of global development discussions and are set to play an important role in achieving the Sustainable Development Goals. This cooperation has been successful in overcoming major challenges such as: focusing on patents, demonstrations, and capacity building to address sustainability issues; co-financing by multiple

sources to resolve the funding issues; and resolving obstacles caused by cultural differences.

C. Recommendations for the Asian and Pacific Centre for Transfer of Technology:

- 15. The Centre may facilitate cooperation between the member countries to freely access the available technologies in climate change, develop proposals for support by the funding agencies, and forge cross-border technology collaboration for enhancing climate resilience of cities.
- 16. The Centre can strengthen capacity of countries to promote start-ups and industries and scale-up climate technologies through creating pro-start-up enabling environment, funding to facilitate commercialization initiatives of the start-ups; and capacity building of start-ups for adoption of technologies.
- 17. The Centre can support industrial and technological capability assessment of countries and help identify their specific needs to facilitate technological cooperation in the region.
- 18. Centre needs to provide support for developing policies and strategies conduct demand-driven capacity building, knowledge-sharing, and exchange of experts for cross-learning to facilitate technology transfer and diffusion in the region.

Annexure: Photographs of the Conference







