

5th International Forum on Low Carbon Cities

UNCC, Bangkok, Thailand

25 August 2025

REPORT OF THE FORUM

EXECUTIVE SUMMARY

The 5th International Forum on Low-Carbon Cities, jointly organized by ESCAP, Incheon Metropolitan City and NEASPEC in Bangkok on 25 August 2025. The Forum gathered representatives from national and local governments, international organizations, academia, and civil society to deliberate on the theme “Low-Carbon Cities and Demographic Change”.

Against the backdrop of rapid urbanization, population aging, and climate challenges, the Forum underscored cities as engines of climate solutions and innovation. Plenary and thematic sessions showcased local and regional policy frameworks, data-driven mobility solutions, intelligent transport technologies, and strategies for addressing demographic shifts while advancing low-carbon urban development.

The event concluded with renewed commitments to inclusive, climate-resilient urbanization and to leverage synergies between demographic transition and low-carbon strategies. Outcomes will contribute to the 2026 review of SDG 11, the Secretary-General’s Quadrennial Report on the New Urban Agenda, and APUF-9 (Yokohama, 2027).

OPENING SESSION

1. The forum was opened with opening remarks by Mr. Hirohito Toda, Deputy Executive Secretary, ESCAP. He highlighted the converging challenges of urbanization, climate change, and demographic shifts. He emphasized cities as “engines of the solution”, noting their role in innovation, finance, and resilience.
2. Following the opening remarks, Mr. Sung Hwan Jeong, Director General of Environment Bureau, Incheon Metropolitan City, reaffirmed Incheon’s ambition to achieve carbon neutrality by 2045 and stressed the importance of city-to-city networks.
3. H.E. Mr. Kobby Bomareo, Minister for Housing, Papua New Guinea, emphasized the unique urbanization and climate challenges facing Pacific Island States, reaffirming commitments to sustainable housing and resilience.
4. Ms. Aisa Tobing, Deputy Secretary-General of CityNet, recalled CityNet’s engagement in the 4th Forum and emphasized peer-learning, inclusivity, and people-centered climate leadership.

SESSION 1: POLICY & GOVERNANCE: SHAPING LOW-CARBON URBAN FUTURE IN AGING AND DENSIFYING SOCIETIES

5. Moderated by Mr. Riccardo Mesiano, Deputy Head of ESCAP East and North-East Asia Office,

the session examined the challenges and opportunities of aging and densifying societies in the context of low-carbon urban futures. Discussions emphasized how integrated climate and demographic policies can maximize co-benefits, strengthen resilience, and ensure sustainability across rapidly changing urban landscapes.

6. Ms. Doljinsuren Myagmar, Senior Specialist, Climate Change Adaptation, Climate Change Division, Ministry of Environment and Climate Change, Mongolia, presented Mongolia's climate policy framework in relation to demographic trends and urbanization. She highlighted rising national temperatures (+2.55°C over 80 years), the impacts of desertification, and rapid urban migration leading to the expansion of ger districts in Ulaanbaatar. She outlined Mongolia's NDCs, draft Climate Change Law, and plans for climate-smart urban strategies, noting ongoing support from UNEP, GCF, ADB, and UN agencies. She concluded that integrating demographic pressures into urban climate planning is critical for long-term resilience.
7. Ms. Huan Zheng, Technical Advisor, Shanghai Changning Urban Renewal and Low Carbon Management Center, China, shared community-level experiences in building low-carbon, resilient, and age-friendly neighborhoods. She introduced a localized indicator system co-developed with residents and experts, covering governance, carbon management, health, waste, transport, and ecological environment. Achievements included a 95% waste-sorting rate, full coverage of 15-minute living circles, expansion of EV charging infrastructure, and biodiversity-friendly green spaces. The model demonstrated how bottom-up participation can align with China's dual-carbon targets while addressing the needs of an aging population.
8. Mr. Javohir Jurayev, Advisor on Energy Sector, Ministry of Economy and Finance, Uzbekistan, presented the country's strategy for harnessing public-private partnerships (PPPs) to deliver low-carbon and resilient cities under rapid population growth. He showcased flagship initiatives such as New Tashkent City and large-scale water supply projects, financed through PPP frameworks. With over USD 30 billion mobilized in PPPs since 2019, Uzbekistan is leveraging international agreements, sovereign guarantees, and blended finance to modernize infrastructure, reduce emissions, and create employment. He underscored PPPs as a vital mechanism to integrate demographic realities into sustainable city planning.
9. Ms. Minkyung Kang, Research Fellow, Incheon Carbon Neutrality Center, Republic of Korea, outlined Incheon's strategies to address both climate change and demographic transition. She emphasized the city's carbon neutrality targets (40% reduction by 2030, full neutrality by 2045), adaptation policies, and smart city innovations. Through IoT sensors, digital twins, and AI forecasting, Incheon enhances disaster preparedness and protects vulnerable populations such as the elderly. She also flagged risks of digital divides, stressing the importance of inclusivity and multi-channel communication in advancing resilience.
10. During the open discussion, panelists and participants highlighted the need to balance decarbonization with social inclusion, particularly in aging societies. Questions addressed the affordability of smart city technologies, PPP financing mechanisms, and community-level engagement. Responses emphasized risk-sharing through hybrid PPP models, the role of international development finance, and the importance of co-designed indicators to ensure local ownership. Speakers from Mongolia, Shanghai, Uzbekistan, and Incheon shared experiences on conflict management, social safety nets, and stakeholder inclusion, underscoring the need for integrated approaches that combine climate action, demographic realities, and urban resilience.

SESSION 2: INNOVATIONS AND TECHNOLOGIES: SUSTAINABLE SOLUTION FOR CITIES IN CHANGING DEMOGRAPHICS AND URBAN LIFESTYLES

11. Moderated by Ms. Jingning Liu, Analyst at the Institute for Global Decarbonization Progress (iGDP), the session explored how innovation and technology can deliver sustainable, inclusive solutions for cities amid population ageing and changing urban lifestyles. Discussions underscored foresight-driven planning, equity-by-design, and low-carbon transitions that leave no one behind.
12. Ms. Sabine Henning, Chief of Section, Social Development Division, ESCAP, Ms. Sabine Henning, ESCAP Social Development Division, provided a regional-level overview of demographic transitions in Asia-Pacific and their implications for sustainable urban development. She emphasized mega-trends such as rapid urbanization, rising inequalities, and climate change, highlighting the role of demographic foresight in anticipatory policymaking. Drawing from the WHO's framework on age-friendly cities, she underscored the importance of linking age-friendly approaches with low-carbon strategies. Her recommendations included investing in education and health across the life course, strengthening social protection, and harnessing technology responsibly to ensure inclusivity for older persons.
13. Ms. Sukhee Kim, Senior Researcher, Suwon Research Institute, RoK, Ms. Sukhee Kim, Suwon Research Institute, presented a case study on demand-responsive transit (DRT) in Suwon City, designed to address gaps in public transport for aging populations and poorly served neighborhoods. She explained how Suwon's fully dynamic DRT system, supported by big data, has improved accessibility, reduced reliance on private cars, and achieved high user satisfaction. Pilot results showed over 329,000 trips in one year, with a majority of users shifting from private vehicles. Looking ahead, Suwon plans to introduce AI-driven forecasting, semi-fixed routes, and eventually autonomous vehicles to expand the service.
14. Mr. Vladimir Kryuchkov, CEO, ITS-Russia, Russian Federation, discussed intelligent transport technologies and automation to support safe and inclusive mobility, particularly for older drivers. He emphasized the role of telematics, smart insurance models, and driver assistance systems in reducing accidents and stress for seniors. Highlighting Russia's urban strategy, he pointed to autonomous vehicles, digital twin technology, and integrated Mobility-as-a-Service (MaaS) systems as tools to lower emissions and enhance accessibility. He stressed that technology must be coupled with inclusivity to transform cities into citizen-centered environments.
15. Ms. Erdenechimeg Elder-Ochir, Executive Director, Asian Infrastructure Research Institute (AIRI), Mongolia, examined how rural-to-urban migration is reshaping Mongolia's infrastructure needs, with Ulaanbaatar as a central case. She outlined severe challenges, including rapid expansion of ger districts, traffic congestion, air pollution, and insufficient utilities. Innovation, she argued, is essential to ensure sustainable urban growth, pointing to pathways such as electrified buses, smart heating systems, digital infrastructure, and PPP-financed redevelopment projects. She highlighted youth migration as both a driver of urban strain and an opportunity for innovation-led solutions.
16. During the panel discussion, speakers elaborated on how demographic and technological shifts intersect in urban planning. Ms. Kim described Suwon's inclusive mobility design for seniors, emphasizing smart pedestrian systems and an autonomous bus pilot zone. Mr. Kryuchkov shared Moscow's initiatives, such as biometric metro access and driverless trams, to improve mobility for elderly citizens. Ms. Elder-Ochir reflected on Mongolia's innovation priorities under severe urbanization pressures, while Ms. Henning stressed the role of demographic foresight and timely disaggregated data.

17. In the open floor Q&A, participants raised questions on renewable energy PPPs in Mongolia, affordable housing strategies for Ulaanbaatar, and the costs of smart technologies for developing countries. Panelists explained ongoing pilot projects, challenges in governance and implementation, and financing mechanisms such as PPPs and green bonds. Discussions emphasized inclusivity, resilience, and foresight as guiding principles.
18. The session converged on a core message: innovation is indispensable for cities facing demographic shifts. Technology can accelerate decarbonization and resilience, but must be coupled with strong governance, inclusive design, and sustainable finance. As the moderator summarized, *“Without innovation, urban growth risks collapse; with innovation, it becomes transformation.”*

SESSION 3: PARTNERSHIPS AND IMPLEMENTATION: COLLABORATIVE APPROACHES TO ENABLING INCLUSIVE, CLIMATE-RESILIENT CITY DEVELOPMENT

19. Moderated by Dr. Jing Yu, Senior Human Settlements Officer, UN-Habitat, the session focused on how global climate commitments can be translated into effective local action through integrated policies, partnerships, and inclusive governance. She emphasized that strong city leadership, multi-level coordination, and people-centered strategies are essential to align global goals with local realities.
20. Mr. Dong Wang, Executive Secretary General, Shenzhen Development Center of International Low Carbon Forum, China, presented Shenzhen’s “triple achievements”: peaking and neutralizing carbon emissions, reducing PM2.5, and sustaining high-quality growth. He showcased Shenzhen’s transformation into a global leader in low-carbon development, with achievements such as 100% electrification of buses and taxis, over 2 million EVs, and PM2.5 levels reduced below 17 µg/m³. He concluded that integrated governance and innovation can deliver simultaneous gains for climate, air quality, and economic growth.
21. Mr. Divya Prakash Vyas, Associate Director, Head, Urban Practice, ICLEI, stressed that inclusivity and equity must be at the core of urban climate strategies. He detailed how climate extremes hit marginalized groups hardest and presented case studies from India, including climate insurance schemes for informal women workers. His key message: resilience requires moving “from apathy to care,” ensuring vulnerable communities are prioritized in policy and investment.
22. Ms. Shom Teoh, Program Manager, IGES Bangkok Office, introduced the ASEAN SDGs Frontrunner Cities Programme, supporting pioneering cities to diffuse low-carbon practices. She highlighted successes and gaps: while 64 cities have engaged since 2011, funding imbalances and fragmented frameworks hinder scale-up. She emphasized the need for national–local platforms, stronger local ownership, and connecting climate goals to daily citizen needs such as jobs and green spaces.
23. Ms. Diana F Torres, Regional Governance Advisor, UNDP, presented UNDP’s *Future Ready Urban Governance for Low-Carbon Cities* initiative. She argued that governance is the “make or break” factor, outlining anticipatory, adaptive, and agile governance frameworks. She shared examples from Sarawak and UNDP’s Leadership Dialogues, and announced a new UNDP report documenting governance innovations in Asia-Pacific cities.
24. Mr. Elmar Mammadov, Head of Economic Cooperation Department at the Ministry of Foreign

Affairs, Republic of Azerbaijan, addressed challenges in implementing global commitments locally, drawing on Azerbaijan's COP29 legacy. He highlighted the New Collective Quantified Goal of USD 300 billion annually until 2035, and introduced the MAP Initiative and Baku Continuity Coalition. He emphasized that finance, human capital, and multi-level coordination are essential to link climate goals with sustainable jobs and livelihoods.

25. During the open discussion, Participants asked about enabling innovative urban culture, balancing growth with pollution control, and health impacts of pollution. Ms. Torres (UNDP) stressed civic participation and social innovation platforms. Mr. Wang (Shenzhen) shared the city's transition from "Shenzhen speed" to "Shenzhen quality" through electrification and integrated planning. Mr. Mammadov (Azerbaijan) underscored human capital as the basis for resilience, while Ms. Teoh (IGES) linked climate action to public health priorities to strengthen community support.
26. Dr. Yu closed by emphasizing that urban climate resilience requires partnerships, integrated governance, and alignment across local, national, and international levels. Key takeaways included: Local governments lead in innovation and service delivery; Regional networks help bridge knowledge and capacity gaps; International organizations support through finance and governance frameworks; and National leadership creates enabling environments for local action. She concluded with the remark: *"Let's turn partnerships into platforms for change, and strategies into systems that work for people and the planet."*

CLOSING

27. Mr. Riccardo Mesiano, Deputy Head of ESCAP East and North-East Asia Office, reflected that the earlier UN paradigm of "trade-offs" between economic growth and low-carbon development is shifting toward synergies. He stressed that smart cities can simultaneously achieve decarbonization and inclusivity through age-friendly design, affordability, and green public spaces. He called for stronger coordination among Low Carbon City platforms to avoid duplication and enhance impact, highlighting the importance of citizen-generated data and big data in crafting effective policies. He also emphasized the contributions of youth participants, whose knowledge of technology and innovation are vital for future urban transitions.
28. Mr. Curt Garrigan, Chief of Sustainable Urban Development Section, ESCAP, outlined the agenda for the upcoming **Regional Partners Forum (Days 2–3)**. Day 2 will review progress on SDG 11 and the New Urban Agenda, serving as input for APFSD 2026 and the HLPF in New York. Day 3 will focus on identifying regional priorities in the lead-up to APUF-9 (Yokohama, 2027). He underlined the need to reflect Asia-Pacific realities in global reporting and to shape thematic priorities for future forums.