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Cross-sectoral cooperation through the Economic Commission for Europe nexus on "Sustainable smart cities for all ages"

Executive Summary of the Flagship Publication "People-Smart Sustainable Cities: A Policy Nexus for a Prosperous, Green and Liveable Future" of the Economic Commission for Europe nexus on "Sustainable and smart cities for all ages"

Note by the Bureau of the Committee

Summary

The 2030 Agenda for Sustainable Development provides an ambitious and comprehensive plan of action with its 17 Sustainable Development Goals. To advance the 2030 Agenda, Economic Commission for Europe has adopted a "nexus" approach in its work, focusing on high-impact nexus areas where multiple Sustainable Development Goals converge.
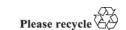
This Note includes Executive Summary of a publication "People-Smart Sustainable Cities: A Policy Nexus for a Prosperous, Green and Liveable Future" which was prepared as a flagship publication of the Economic Commission for Europe nexus "Sustainable and smart cities for all ages'.

The full version of the publication is also available as a part of information documents shared for the Committee Session (ECE/HBP/2020/INF 9).

The Committee is invited to endorse the key conclusions and recommendations of the publication presented in this Note.

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I. A cities-based approach to sustainable development

1.   The 2030 Agenda for Sustainable Development provides an ambitious and comprehensive plan of action with its 17 Sustainable Development Goals (SDGs). To advance the Agenda, the United Economic Commission for Europe (UNECE) has adopted a "nexus" approach in its work, focusing on high-impact nexus areas where multiple SDGs converge. This flagship publication is related to one of those high impact nexus areas: "Sustainable and smart cities for all ages".

2.   This publication advocates a cities-based approach to sustainable development. This is to recognize a central and integrating role that cities and urban living play today for sustainability. As a dominant form of organizing society today, cities are the centrepiece of economic, social, and cultural life. Without localising SDGs at the urban scale, few of them can be effectively addressed at all. Furthermore, by their nature cities represent a complexity of different interrelated systems, social and technical, so that they are best placed to address multiple sustainability goals, all at once.

II. Liveability and sustainability for all

3.   Cities possess colossal resources, talent and creativity and serve as hubs for knowledge sharing, experimentation and innovation, generating new ideas, embedding them locally and scaling-up what works best. Cities, however, are not abstract sustainability-making machines; they are where real people live, work, study and fulfil themselves. Cities are made of people, by people and for people. Sustainable measures will have to make sense to cities' inhabitants, making their life more liveable. Furthermore, it is people who drive sustainability and are its ultimate source and beneficiaries. This vision underpins the notion of people-smart sustainable cities, introduced in this publication.

4.   People-smart sustainable cities are cities that engage with sustainability in an inclusive, collaborative and equitable way. While fostering sustainability across its environmental, economic, social and cultural dimensions, these cities provide solutions, resources and infrastructure to empower human agency and enhance the capabilities of all citizens to contribute to and enjoy the benefits of a more liveable and sustainable development. These cites enable meaningful participation of their citizens in fulfilling their right to the city; they focus on making cities more equitable and comfortable and housing and services more efficient, high-quality and affordable; they cater for the needs of the vulnerable, are gender-sensitive and age-responsive, acknowledging the different and changing needs and capabilities of residents at different stages of life.

III. Societal trends and challenges

5.   The fundamental role of cities in driving sustainable development is conditioned by broader societal trends and challenges which cities need to adapt to, but which also produce new opportunities.

       (a)   Globalization and urbanization: These two processes contain each other: globalization makes people move to cities with their benefits of agglomeration, while urbanization fosters economic and cultural interdependence of the world and creates a planetary-wide ecological footprint.

       (b)   Geographic disparities: Besides the persistence of social inequalities, which produce issues with spatial segregation, unequal standards of living and a lack of housing affordability within cities, large economic inequalities exist between larger metropolitan

areas and smaller, peripheral and old industrial cities, resulting in uneven quality of life and different life opportunities.

(c)   Crises and pandemics: The financial crisis of 2008 and the outbreak of Covid-19 have contributed to new global instabilities, intensifying underlying economic and social problems of cities.

(d)   Digital transitions: Information and communication technologies (ICTs) and the fourth industrial revolution offer new opportunities for managing cities more efficiently and holistically.

(e)   Population ageing: Ageing produces specific demands on urban infrastructure, health and social care system, housing and public space, but also expands the "silver economy", which already makes up a considerable share of urban economies.

(f)   Environmental and climatic pressures: Coupled with the global transformations associated with climate change and its impacts, cities create localized environmental pressures, such as air, water and noise pollution, which influence public health.

(g)   Natural and technological hazards: Urbanization decreases distances between population centers, industrial areas, flood plains, seashores and other areas prone to the impacts of natural hazards and increases the exposure of the population to technological hazards.

IV.   What do cities do to foster sustainability and liveability in an integrated manner?

6.   Cities can address those challenges and opportunities in a holistic, integrative way, which is exemplified by many practices. The UNECE region is a home to cities that are leading the way to becoming sustainable themselves and contributing to overall sustainability. UNECE's strategic policy instruments and approaches, experiences, good practices and lessons learned support policymaking for people-smart and sustainable cities – both at the level of national governments and cities. This publication discusses a few important cross-sectoral areas, in which the potential of cities is directed towards addressing the societal trends and challenges in an integrated manner, while fostering their sustainability and liveability.

7.   **Every city matters**. Persistence geographical disparities call for a coordinated, multi-level (vertical) and a whole urban system approach to sustainable city. The wellbeing and prosperity of each and every city matters for sustainable development. No nation can claim to be sustainable where many of its cities are not. Economically advanced nations spend considerable budgets on territorial balancing programmes, mitigating economic differences and helping lagging-behind areas. And yet, many countries, including those with economies in transition, focus on large-scale spectacular urban projects, particularly in larger and capital cities. More inclusive policies seek to externalise/share the benefits of larger metropolitan agglomerations to benefit lagging behind cities and the whole urban system – whether through a redistributive hand of the state, better territorial planning and integration, a polycentric model of regional development or a better connectivity and enabling infrastructure.

8.   **Dealing with the Covid-19 pandemics**. Like the financial crisis of 2008, Covid-19 has highlighted that different cities have different capacities to cope with crises. While the recovery of larger urban centres is more imminent, weaker cities have interconnected underlying problems which cumulatively undermine their capacities to cope. Both the disease itself and the economic plight caused by lockdown measures have disproportionally affected

the most vulnerable groups of the society and those who have more precarious housing conditions. The pandemics has demonstrated how fundamental housing is to public health, thus only emphasising the importance of implementing the principles of the Geneva UN Charter on Sustainable Housing. The outbreak of Covid-19 has also demonstrated that cities need to develop innovative methods of confronting infectious diseases without relying on drastic top-down measures and reconsider some urban design principles. Access to public spaces, green spaces (parks, forests) as well as blue spaces (water bodies) has proven important for physical and mental wellbeing.

9.   **Engaging with digital transitions**. Digital technology is increasingly integrated into urban design and management. Cities actively deploy ICT infrastructure and "smart" solutions for integration and coordination of urban systems and processes and to offer citizen-centric services. These technologies are not a panacea and need to be tailored to the real needs of cities, but they do promise greater efficiency and expediency. City operating systems are deployed alongside digital twins to create more holistic and optimized ways to manage municipal services and transport infrastructure. Cities experiment with robotics and autonomous systems (e.g. connected self-driving cars, robotic health, automation in buildings for energy efficiency). New online sharing platforms also unlock underutilised capacities of urban systems and create new markets (e.g. car, bike, home sharing). Increasingly cities become aware of the ethical and social challenges arising with the world of digitalization. People-smart cities seek to be digitally inclusive, enhance capabilities, ensure benefits to all citizens.

10.   **Cities that make life comfortable for all**. Cities that aspire towards a more liveable and sustainable environment provide fusion between housing, urban and social infrastructure. These are part of the so-called "foundational economy", the everyday anchors of the urban life, which are critical for making cities liveable. People-smart cities aspire to widen access to decent, adequate, affordable and healthy housing for all - housing that supports more than basic needs, but fulfils people's full participation in urban life, connects to lifestyle preferences, everyday infrastructure and public spaces. This is part of creating more appealing urban environments, with positive vibes and vibrancy for all social groups and ages. In the context of ageing, cities support wellness and provide conditions for older people to have a pleasant environment to "age in place". Housing, social infrastructure and mobility patterns adapt to and accommodate the needs of elderly and people with disabilities (e.g. assisted living, barrier-free mobility, innovative healthcare, and inclusive technology). People-smart cities also pursue an integrated approach to sustainable mobility, adopting the cross-sectoral principles of the UNECE Transport, Health and Environment Pan-European Programme (THE PEP).

11.   **Climate neutral cities**. Thousands of cities have already incorporated climate and energy targets in their strategies and plans. These plans create a sense of direction – although these targets are more aspirational rather than binding. There are trends almost everywhere towards strengthening energy standards for new-built buildings and homes and provide energy regeneration for existing buildings, as well as sharing expertise between cities (as facilitated by the UNECE International Centres of Excellence on High Performance Buildings). Cities move energy supply to cleaner energy and "distributed" modes of energy and modernise energy infrastructure. Cities also do much with the focus on transport, which remains predominantly based on fossil fuels. Municipal procurement for clean energy and green technologies for public services and transport is an effective lever that city administrations have, alongside city planning and incentivizing modal shifts in mobility.

12.   **Ecological justice**. The environmental impacts of human activities come back to society in the form of negative health impacts and deteriorated living environments. These impacts are often socially uneven as poor residents in many countries are more exposed to them due to discriminatory siting of polluters, low quality and unhealthy housing or

sacrificing health for the sake of employment. Similarly, vulnerable groups struggle with affording access to clean and safe water, energy or good quality food. Sustainable cities foster inclusive solutions (e.g. adopting the equitable principles of the UNECE Protocol on Water and Health). Green and nature-based solutions are already commonly used in many cities. Smart technologies help better monitor environmental conditions, including by providing information through mobile phone applications and informing residents.

13. **Circular cities and the value out of waste**. Sustainability-minded cities look to close the open loop metabolism where natural resources are brought into cities, but their remainders are dumped as waste. A circular economy approach makes value out of "waste", so that it becomes an input resource for further processing. Many cities lead a paradigmatic shift along a nexus thinking. While traditional urban management for the food, water, energy, and waste sectors is operated in silos, the realisation of the merits of the interconnections between these systems becomes aspiration for bringing them together as a united and circular energy-food-water-waste-land nexus. The nexus approach has also proven effective in regenerating brownfields for new sustainable communities.

14. **Tackling hazards**. Natural, technological and hybrid hazards require preventive solutions as well as preparedness and response measures. Due to the concentration of people, housing and capital stock, cities are particularly vulnerable to the impacts of disasters. Following the Sendai Framework for Disaster Risk Reduction, key aspects in reducing the present and future negative impacts are policy integration and improved adaptation and resilience. Concerted efforts by multiple stakeholders are required to achieve resilient urban environments – to boost internal capabilities and capacities of urban systems to withstand these changes, to minimize negative impacts and to maximize benefits. Cities explore existing or emerging technologies for hazard identification, detection and early-warning systems, emergency response and mitigation.

V. How do cities activate capabilities for becoming people-smart and sustainable?

15. Governments on national and municipal levels activate the capabilities of cities to implement sustainable solutions. This includes a culture of innovation and deliberation which systematically explores new opportunities, identifies what works and what doesn't, unlocks untapped potential and overcomes fragmentation, inefficiency and missed opportunities.

16. **A strong enabling environment for innovation**. Experimentation and exploration are important for finding new and innovative solutions. A smart policy intervention is a continuous and exploratory process rather than a prescribed set of strategies with expected results. To fully utilise their innovative potential, cities develop an open culture of agile governance that facilitates reflective learning, adaptation, creativity, innovation, co-creation and supports innovative business models. This involves exploratory multi-level management mechanisms to facilitate collaboration across different sectors, gain evidence, confidence and design, pilot, modify, and scale up ideas.

17. **Steering and prioritising workable solutions**. To be forward looking, cities develop a culture which avoids making new major investment decisions based merely on previous practices, existing infrastructure or entrenched interests. Keeping old habits often reproduces inefficiencies. Leading cities enable the system of critical assessment: what works, what doesn't and the ability to stop what doesn't, avoiding costly lock-ins and status quos. An evidence-informed "what works" approach helps understand and evaluate solutions in practice.

18. **Municipal finance directed at sustainability.** Municipal budgets are key vehicles for cities to embrace sustainability. Procurement has a crucial importance in channelling

priorities and driving demand for innovative solutions. To make innovation-enhancing procurement, cities enter into competitive dialogues with potential bidders in order to understand the current state of technology and the potential for superior solutions. They also use pre-commercial procurement like grants to innovative companies and local start-ups. Local fiscal and payment regimes also play a stimulating role to encourage sustainable and discourage unsustainable activities, projects or lifestyles. There are innovative and flexible tools while cities look for mobilising the "right finance" such as UNECE People-First Public Private Partnerships (PPPs) mechanism that emphasises SDG compliance.

19.   **Public participation and co-production**. The ability to engage systematically and meaningfully with citizens, private sectors and other stakeholders is what distinguishes people-smart sustainable cities. Participatory planning and budgeting are some of the tools used by people-smart cities. The UNECE Aarhus Convention promotes effective access to information and informed participation at all levels. New technologies and digitalization, open data, open government and e-government initiatives help public authorities to make information more accessible and allow the public to participate in decision-making easier through online platforms. The key question for progressive participation is yet to what extent residents are capable to actually initiate change and collectively shape cities to their aspirations. Cities need to make sure to make decisions that benefit society at large, not just a few.

20.   **Making the most out of spatial and land use planning**. Spatial planning is principal for the integration of different urban sectors into a coherent and consolidated spatial strategy. Urban design, sustainable and affordable housing provision, public transit and integrated infrastructural systems are some of the planning considerations that have long been acknowledged amongst the principal instruments for sustainable cities. Innovative cities reduce regulatory barriers, ensure land supply and create supportive planning and zoning conditions for encouraging investment, for example, in cleaner energy or quality affordable and sustainable housing. Land use planning is important to prevent being locked into unsustainable or hazard-prone conditions. The UNECE Protocol on Strategic Environmental Assessment (SEA) alongside several strategic UNECE transboundary agreements provide frameworks for understanding and working on environmental impacts and risk management of proposed projects.

VI.   What are key messages for national and international policymakers?

21.   Recognize cities as the platform for sustainable development. The sustainability challenges cannot be solved without a close involvement of cities. The centrality of cities to implement solutions for sustainability – in a manner that create values to all citizens – needs to be recognized and utilized across all fields of policy actions. Furthermore, as city administrations are implementing national and international commitments, their voice needs to be heard at the national and international levels too (i.e. as offered by the UNECE Forum of Mayors).

22.   Work vertically and horizontally on urban and housing matters. The strong potential of cities with respect to sustainability should not be taken for granted but should be systematically nourished and promoted. This requires working across sectoral departments and at all levels of administration on urban matters. This also includes addressing the challenge of adequate and affordable housing in cities as a basis of living well and a foundational pillar for the economy.

23.   Provide cities with adequate mandates and resources. National governments need to delegate to urban governments competence and enabling capacities, such as revenue

generation authority and regulatory mandates, in order for them to be actively involved in a response to sustainability, unlock their potential and boost quality of life for citizens. National governments also need to coordinate resources and distribute investment between cities. Strengthened municipal finance and fiscal systems make cities more conducive to innovation and more attractive to people and businesses. This reduce inter-regional inequalities and promote territorial and social cohesion.

24.   Respect urban diversities and embolden collaboration. The diffusion of models and knowledge is only good as long as it accommodates the diversity of cities and their actual needs. Cities take inspirations from each other and guidance from higher levels, but they need to keep their own identity and ambitions. Likewise, urban sustainability transitions are heterogeneous and there is no one size fits all solution. Using localized knowledge is essential for producing fit-for-purpose solutions. Local actors need to have facilitative frameworks that help them articulate their needs and negotiate possibilities to address them. Collaboration between stakeholders is imperative.

25.   Cooperate across borders and coordinate policies and standards. Many issues for cities are externalised to broader territories and require multi-level and horizontal coordination, as well as international cooperation. This involves coordination across municipal and national borders; international transboundary cooperation among cities and urban agglomerations; information-exchange and learning; and interoperability of standards and protocols.

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