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Economic and Social Commission for Asia and the Pacific
Committee on Environment and Development

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**Accelerating the implementation of the 2030 Agenda for
Sustainable Development in Asia and the Pacific through
environmental solutions**

Sustainable cities post-coronavirus disease pandemic[**]

Summary

   Countries in the Asia-Pacific region faced significant challenges in implementing the 2030 Agenda for Sustainable Development prior to the coronavirus disease (COVID-19) pandemic outbreak. Other than the immediate health related effects in urban areas, COVID-19 has magnified environment and development challenges putting the local achievement of the Sustainable Development Goals, New Urban Agenda and Paris Agreement at even greater risk.

   The pandemic offers a unique opportunity to 'reset' ambitions for sustainable urban development in addressing this generational challenge to build back better. City solutions promoted throughout the four pillars and 15 transformative policy pathways outlined in *The Future of Asian & Pacific Cities* report provide an integrated framework for long term recovery to enable sustainable, climate resilient cities for all.

I.   Impacts of the coronavirus disease and challenges to sustainable urban development

1.   With more than 90 per cent of all coronavirus disease (COVID-19) cases reported in urban areas, and the resulting lockdowns causing significant disruption to city governments, residents and businesses, the pandemic has the potential to change the dynamics of urban development. As centres of economic growth, home to large, concentrated populations, and as hubs of transportation and mobility, cities have seen unprecedented impacts from COVID-19. The World Bank estimated that as a result of the pandemic across the world local government revenue losses are expected to decrease 15 to 25 per cent, which will diminish the provision of public services, infrastructure and investments.

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2.   Asia-Pacific became a predominantly urban region in 2019,[1] with many of the world's fastest growing intermediary cities, 80 per cent of the region's Gross Domestic Product,[2] enormous energy demand and emissions. The region's cities are also home to large informal populations, vulnerable to the spread of disease. Thus, the pandemic crisis has illustrated how intertwined the development of COVID-19 recovery strategies is with the future of Asian and Pacific cities. The lockdowns across the region highlighted that rapid shifts can occur in environmental impacts, behaviour changes and the resulting dynamics of urban areas. During the peak of COVID-19 lockdowns, reductions in vehicular traffic and energy consumption led to a remarkable clearing of the skies. People in northern India could see the Himalayan mountain range more than 150 kilometers away for the first time in decades.[3] Satellite imagery over China illustrated drastic declines in nitrogen dioxide during the shutdown.[4] Metro Manila saw an 80 per cent decrease in PM2.5 over a period in March that coincided with the shutdown. Bangkok, Delhi, Kuala Lumpur and cities across the region all experienced cleaner air during the pandemic.[5]

3.   As cities develop recovery strategies, they will need to consider opportunities to learn from the positive environmental aspects that emerged during the pandemic, as well as the possibilities that the shifts in behavior and work modalities could have adverse impacts on capacities to invest in sustainable urban development. Deploying sustainable urban solutions and building the capacities of cities in partnership with national governments and stakeholders can strengthen recoveries while accelerating climate and resilience actions and progress toward the Sustainable Development Goals, the New Urban Agenda and the Paris Agreement. While the long-term impacts from the pandemic remain unknown, it is possible to frame shifting dynamics and how integrated policy pathways can guide transformative change following the pandemic towards a sustainable future. Cities must consider the following:

(a)   How can cities become more resilient, including through enhancing elements of urban health to mitigate the risks against future pandemics?

(b)   What are the opportunities to accelerate local climate actions, including through recovery strategies and enhanced vertical integration with national governments?

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[1]   *The Future of Asian and Pacific Cities: Transformative Pathways towards Sustainable Urban Development* (United Nations publication, Sales No. E.20.II.F.1).

[2]   African Development Bank, Asian Development Bank, European Bank for Reconstruction and Development, Inter-American Development Bank, "Creating Livable Cities: Regional Perspectives" (Manila, 2019). Available at www.adb.org/sites/default/files/publication/531126/livable-cities-main-report.pdf (accessed on 4 November 2020).

[3]   CNN, "People in India can see the Himalayas for the first time in 'decades,' as the lockdown eases air pollution" (9 April 2020). Available at https://edition.cnn.com/travel/article/himalayas-visible-lockdown-india-scli-intl/index.html.

[4]   Airborne Nitrogen Dioxide Plummets Over China. Available at www.earthobservatory.nasa.gov/images/146362/airborne-nitrogen-dioxide-plummets-over-china (accessed on 4 November 2020).

[5]   SciDevNet. "Asian COVID-19 lockdowns clear the air of pollutants" (15 April 2020). Available at www.scidev.net/asia-pacific/environment/news/asian-covid-19-lockdowns-clear-the-air-of-pollutants.html (accessed on 22 October 2020).

(c)   How can cities apply integrated policy pathways to respond to the urban dynamics emerging from the pandemic?

II.   Building back better cities

4.   The impacts of the COVID-19 pandemic on cities highlight the critical role that local governments play as "front-line responders" in crisis response and recovery, and the potential of cities to lead efforts to build back better from the pandemic. The four thematic pillars and related policy pathways outlined in *The Future of Cities in Asian & Pacific Cities* report, together with the key recommendations from the Economic and Social Commission for Asia and the Pacific (ESCAP)'s recent expert group meetings and analysis of the impacts of COVID-19 on cities and prospects for local climate action in light of recoveries, provide a robust framework and some practical insights as cities plan ahead for their recovery. Key elements of the four thematic pillars in the report follow.

5.   *Urban and territorial planning.* COVID-19 has stimulated the need to strengthen urban and territorial planning, including through integration of public health in planning processes. In doing so, local governments in the region must make concerted efforts to address the deeply rooted urban inequalities stemming from unequal access to basic service provisions. This should be achieved through the integration of sustainability and quality-of-life targets into urban and territorial planning processes at all levels of governance, creating a "spatial vaccine" that encourages physical activity, reduces pollution and facilitates social inclusion whilst respecting physical distancing.

6.   Changing urban dynamics, including potential shifts in work modalities must be considered in urban and territorial planning efforts to effectively consider investments in transport and telecommunications infrastructure and strengthen urban, peri-urban and rural linkages. Recovery efforts need to focus on developing effective city-region strategies to coordinate the provision of affordable housing for all, and to reverse car-dependent urban sprawl through compact urban development with walkable access to services, producing multiple benefits such as efficiencies in infrastructure investments and resource consumption and the potential to reduce urban air pollution. To tackle a lack of tenure security for the urban poor during and after crises, governments must provide guidance to prohibit evictions, subsidize residents, owners and renters who are worst hit financially and to provide alternative shelters for those evicted as short-term measures. In the medium- to long-term, there should be structural public funding allocated to affordable housing and slum upgrading.

7.   *Urban resilience.* The COVID-19 pandemic has highlighted a need to better integrate public health priorities into urban resilience efforts. Not only would this strengthen the overall public health system, it would also create an enabling environmental condition for all to lead healthy lifestyles. Adequate housing, basic water, sanitation and hygiene infrastructure and integrating nature-based solutions into the built environment should be at the core of cities' resilience and recovery efforts to improve health through providing a more liveable and greener urban environment, and to mitigate against the risk of climatic and health threats.

8.   Breaking down institutional siloes, as well as meaningful community participation are also core elements to be integrated into disaster preparedness and broader urban resilience development. This also entails the vertical integration of public health considerations into urban resilience planning across all levels of governance – which is crucial to the implementation of

localized actions against climate change and associated development challenges. When cities do not have authority to fully mobilize all levels of governance, their ability to execute authorized actions and to act proactively to mitigate against climate change would be severely hampered. Aside from a need for governance reform, the pandemic also exposed significant urban data gaps. Efforts should be made to improve the collection of gender and age disaggregated data at the local level to inform decision-making processes for national and local governments, and to identify risk areas that require intensified allocation of resources.

9.   *Smart and inclusive cities.* There is an urgent need to build more digitally connected cities in order to provide equitable opportunities to all, including access to health services. As much as cities need smart applications facilitated by big data collection and information and communications technology (ICT) infrastructure, smart city planning that is intrinsically linked to the health and wellbeing of urban residents proves to be even more crucial – as witnessed by COVID-19 experience. The promotion of urban health options within smart city governance structures, and accommodation for peer-to-peer learning networks as a repository for COVID-19 best practices to inform future outbreaks are all examples of smart city planning. This is demonstrated in the case of the Thai municipality of Khon Kaen, where a Smart Health project has been adopted aiming to help citizens prevent and better manage chronic illnesses – ultimately reducing the need for costly hospital visits. The scheme employs smart wristbands and smart home solutions to collect health data of citizens integrated with electronic medical records of citizens and providing necessary health guidance.[6]

10.   Likewise, the development of two-way open data dashboards, facilitated by social enterprises or like-minded tech companies, would allow for the real-time monitoring of health data. For example, throughout the pandemic, many Asia-Pacific cities employed contact tracing applications - mobilizing new data sources to locate COVID-19 hotspots and vulnerable populations. Yet, there are public concerns of the potential invasion of privacy and issues surrounding cybersecurity. Hence, in order to ensure smart technologies are used in a transparent manner and respective to principles of privacy, these technologies should be paired with transparent data sharing agreements to ensure data collection without compromising cybersecurity.

11.   *Urban finance.* With an estimation of up to 15 per cent contraction in local government revenues in Asia-Pacific in 2020 due to COVID-19, and the worst of the impacts to be felt far into 2021,[7] governments must reconsider existing relationship between health and urban finance. To build back better and leave no one behind, it is important for urban finance systems to adopt new spending schemes that are designed to reach into informal settlements and labour markets – where it became increasingly evident during the pandemic that emergency fiscal support and social protection measures in the region fell short to reach these urban populations. Yet, urban informal workers play a vital role in driving local economies of cities by supplying essential services during

[6]   International Data Corporation Thailand Names Phuket and Khon Kaen as the Top Smart City Projects in in Asia/Pacific for 2018 (2 August 2018). Available at www.thailand4.com/.it/2018-08-02/073d9535058c1be356aa62987c4db033/. (accessed on 28 October 2020).

[7]   World Bank, "Urban and Disaster Risk Management Responses to COVID-19" (3 April 2020). Available at http://pubdocs.worldbank.org/en/575581589235414090/World-Bank-Urban-DRM-COVID-19-Responses.pdf. (accessed on 21 October 2020).

the pandemic – including the production of food and personal protective equipment, and the operation of public transport.

12.   Furthermore, in order to avoid long-term economic contraction, cities must accelerate investment into a broader set of urban infrastructure sectors – particularly traditional sectors such as affordable housing, water and sanitation, in order to secure improved environmental and public health outcomes. Given the significant increase in multi-dimensional poverty caused by the pandemic, benchmarks for housing affordability are likely to change. Moreover, national governments should include affordable housing in private-public partnership portfolio reviews – to encourage projects that have not broken ground to revisit feasibility studies under the guidance of finance ministries and national authorities as a future-proofing precaution.

13.   Since the onset of the pandemic, land-linked financing mechanisms have increasingly been recognized for their potential to finance nature-based and biophilic solutions to encourage green economic recovery and to create more liveable and climate resilient cities, whilst enhancing the value of urban land. Another urban economic instrument is to incentivize the use of environmental user fees to combat traffic congestion and air pollution levels. Governments will need to refine national regulations to facilitate for their accelerated deployment, especially in fast growing intermediary cities with rising car ownership.[8]

III.   Cities at the forefront of accelerating the 2030 Agenda for Sustainable Development and increasing climate ambition

14.   The four thematic pillars outlined in the previous section remain the basis for moving towards sustainable urban development in Asia and the Pacific. By cities focusing on this comprehensive framework, they can employ COVID-19 recovery plans to accelerate action for the integrated achievement of the 2030 Agenda for Sustainable Development, the New Urban Agenda and the Paris Agreement. For countries to leverage urban climate ambitions to further scale up their ambitions towards a 1.5 degree world, vertical integration of climate action and supporting the capacities of cities to implement such actions is key.

15.   Involving sub-national governments in setting Nationally Determined Contributions and National Adaptation Plan targets and goals is widely recognized as critical to raising – and achieving – country-level ambition under the Paris Agreement. By incorporating sub-national government actions or their capacity to act, national governments may also discover untapped opportunities to reduce emissions, in particular on demand side management, and opportunities for climate-proofing in COVID-19 recovery plans. Disaggregated national analysis and target setting can help countries to raise their level of ambition in line with the Paris Agreement.

16.   Political alignment between national and city governments, for example through a clear willingness or mandate, is important for fostering administrative collaboration. Such efforts can help to clarify expectations on what needs to be delivered, by which level of government, and building political consensus to enable each level to play their respective role. City-based coalitions, such as India's 'Climate Alliance' comprising over 100 cities as a

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[8]   Ibid, p.46.

platform to provide peer advice on urban climate action, can influence national government in a bottom-up process.

17. National policies can unlock or accelerate city climate action, in particular for collaborative locally-based action areas, such as building codes, decentralized renewables and mass transit. National policies and plans can empower and enable action through appropriate instruments and/or supporting frameworks, in line with local capabilities. Similarly, city policies should align with and build on applicable national targets and commitments. In some cases, cities can contribute a significant share of a national climate target(s), or even go beyond and increase ambition, demonstrating a new model for climate leadership.

18. Achieving country Nationally Determined Contributions and National Adaptation Plans requires technical competency, knowledge and skills within city governments to establish, monitor and enforce local measures. These skills may need to be developed or enhanced for better implementation, participation, and follow-up capacity. Experienced national, regional or city governments can share knowledge and cooperate to help build local capacity, including to value and implement nature-based solutions which provide a more liveable and greener urban environment and mitigate against the risk of climatic and health threats.

19. Given that country and city climate change responses are still evolving, monitoring, evaluation and learning on implementation experiences are necessary for enhancing interest, capacity and effectiveness of climate investments. Vertical integration processes in this area tend to standardize methodologies, tools and instruments for monitoring, evaluation, reporting and verification of climate action. National, regional and city governments often gather data that is valuable to each other. Sharing this information can empower stakeholders and improve decision-making and accountability.

20. Financing urban climate action requires national governments to establish enabling policies and instruments that raise and direct the required finances toward implementation at the city level. This may include national government raising funds and pooling risks for distribution to intermediary city governments in particular through Special Purpose Vehicles, such as the *PT Sarana Multi Infrastruktur* (PTSMI) model in Indonesia, or empowering city governments to raise their own finances, including through access to debt capital markets for creditworthy candidates. Most international climate finance is only available to country governments, so cities are dependent on national counterparts to provide access. If countries are to raise the finances necessary to transition infrastructure and urban development to achieve country Nationally Determined Contributions and National Adaptation Plan targets, national and city governments are mutually dependent on one another, and therefore need work collaboratively on financing policies, instruments and financial flows.

21. Opportunities to unlock local climate action include leveraging national subsidies for city climate action, establishing dedicated financial entities that harness multiple funding streams for implementation, working through existing finance entities such as banks to raise climate finance, and creating conditions that support private investment in climate action. National and regional governments can also encourage cities to work together to pool resources that further unlock capital. National governments can empower cities to raise their own climate finance and access international climate funding. While devolution of responsibility for investment decisions will differ depending on country contexts, high levels of transparency and clear lines of

accountability are paramount to maintaining trust and preventing misuse of funds.

IV. Regional solutions for sustainable urbanization and the contributions of the Economic and Social Commission for Asia and the Pacific

22. The integrated policy pathways across the four thematic pillars in *The Future of Asian & Pacific Cities* report not only provide guidance for new planning efforts but can also serve as a framework for cities to recover from the pandemic. Further supported by a focus on urban health, the pathways will help cities to build multi-level resilience and accelerate sustainable urban development.

23. Long-term recoveries from COVID-19 will require better understanding of urbanization trends, environmental impacts and future resource needs, and deploying the most appropriate urban solutions in communities. ESCAP is working with member States and partners to develop tools to support forecasting future urbanization and reporting guidelines for sustainable urban development, and to mainstream with pilot cities the policy pathways as a strong framework for post-COVID recoveries. In partnership with member States and regional networks, ESCAP has maintained a strong focus on addressing the needs of cities and engaging a wide range of stakeholders including government, private sector, academia and other international organizations.

24. *Strengthening regional urban development cooperation and city networks.* Achieving the vision of *The Future of Asian & Pacific Cities* report requires regional cooperation to address trans-boundary, regional, and sub-regional issues which cannot be resolved by individual countries alone. The report was launched at the seventh Asia Pacific Urban Forum, held in October 2019 in Penang, Malaysia, and organized by ESCAP and the United Nations Human Settlements Programme (UN-Habitat) in partnership with Urbanice Malaysia and the Penang Island City Council. The forum, organized by ESCAP every four years since 1993, brought together more than 5,000 participants from across Asia the region and world, and remains the largest regional gathering of urban stakeholders in Asia-Pacific. For the first time, stakeholders at the forum also registered voluntary commitments as one of the outcomes. The commitments, which must deliver concrete results by the next session of the Asia Pacific Urban Forum in 2023, will serve to increase investments and impactful initiatives for the implementation of the New Urban Agenda, achievement of the Sustainable Development Goals, and the Paris Agreement.

25. The seventh Asia Pacific Urban Forum concluded with the launch of the Penang Platform for Sustainable Urbanization, an alliance of partners committed to accelerate implementation of the Sustainable Development Goals in cities. To monitor progress across the region, ESCAP in partnership with the Penang Platform for Sustainable Development, developed the first region specific guidance for Voluntary Local Reviews which supports cities in reporting their contributions towards the Sustainable Development Goals. Cities in South Asia, South East Asia and the Pacific have signed up to apply the guidelines and produce their own Voluntary Local Reviews to present at the Asia-Pacific Forum on Sustainable Development.

26.   ESCAP also launched the Asia Pacific Mayors Academy for Sustainable Urban Development at the seventh Asia Pacific Urban Forum. This initiative, developed together with UN-Habitat, United Cities and Local Governments Asia-Pacific, United Nations University Institute for Advanced Study of Sustainability, the Association of Pacific Rim Universities, and the Institute for Global Environmental Strategies is working with newly-elected or appointed city mayors/governors in the Asia-Pacific region to build their capacities to implement the policy pathways and develop local climate actions and sustainable urban solutions in their communities. The academy's peer-learning and networking will allow for cross-fertilization of ideas and solutions among cities, including to address common impacts from the pandemic.

27.   ESCAP is also providing innovative technical assistance through projects and initiatives which tackle multiple urban challenges, including pandemic response. Many of ESCAP's activities have been reconfigured to strengthen local governments' capacity to recover from the impacts of COVID-19 based on build back better principles. One such support is aimed at urban economic and financial recovery and resilience building, based on data collection, best practices, and recovery planning assistance. ESCAP's efforts are designed to also strengthen capacities of national level policymakers in target countries to develop national urban plans and evidence-based policies, enhance awareness of policy coherence tools and good practices, and foster south-south learning and sharing of implementation experiences. By developing specific policy guidance, building leadership capacities, and assisting cities to monitor and report their progress, ESCAP is supporting cities to build back better through sustainable urbanization.

28.   ESCAP continues to focus on improving sustainable use of natural resources and resource efficiency based on circular economy approaches. Such efforts are an important component of building back better, integrating resource management that is sustainable and minimizes the negative trade-offs across critical sectors in terms of resource extraction, energy and water, waste generation, and land use, while simultaneously safeguarding ecosystems will strengthen urban recoveries. ESCAP and UN-Habitat are jointly executing a project on localizing the Sustainable Development Goals in five pilot cities to strengthen the capacities of local governments to promote a Sustainable Urban Resource Management approach to enable cities to operate within planetary boundaries whilst fulfilling essential basic services and resilient livelihoods for all. After the pandemic hit, efforts have been made to adjust cities' approaches to include considerations for diseases and hygiene, especially in the waste management sector.

29.   At the seventy-sixth session, the Commission, member States adopted a resolution to promote cooperation for the health of oceans, including stopping marine plastic pollution. As cities consequently prioritize investment in digital infrastructure systems in their COVID-19 recovery planning, the ESCAP 'Closing the Loop' project supported by the Government of Japan, implements the G20 Osaka Blue Ocean Vision and the Association of Southeast Asian Nations (ASEAN) Framework for Action on Marine Debris by providing cities with new data tools on plastic waste generation and characterization to detect ocean bound plastics in the urban environment. The project will pioneer a machine learning-based digital tool for detecting plastic waste in municipal waterways, leveraging smart city remote sensing and space applications. This provides an enhanced evidence base to make municipal solid waste management systems to be more resilient thereby accelerating city progress in action across Sustainable Development Goals 11, 12 and 14.

30.   As recovery strategies continue to develop, building back better must be further supported by evidence-based policymaking. At the seventy-fifth session of ESCAP Commission, member States adopted a resolution on strengthening regional cooperation to tackle air pollution challenges in Asia and the Pacific. In response, ESCAP is currently undertaking analytical and capacity development activities supported by the Republic of Korea that will enable cities to make evidence-based decisions to reduce urban air pollution. The project is significant in that air pollution is one of the biggest environmental threats being responsible for seven million premature deaths each year, and exposure to air pollution can increase vulnerabilities to respiratory illnesses. Results from these analytical efforts have utilized machine learning to demonstrate that the primary causes of air pollution vary significantly among urban centers, even in the same country and region.

31.   Accordingly, it is vital to link science and local policy action in a way which prioritizes limited resources where they can be most useful. Additionally, through mechanisms such as chemical fingerprinting of the pollution composition, the impact of air pollution on public health and the environment can more clearly assessed than previous approaches allowed. Air pollutants also directly correlate with climate change and disease pandemics since people exposed to air pollution are more likely to succumb to pulmonary infectious diseases. The sources of air pollution are many which includes fossil fuel combustion and transport-related activities, as well as from land use change, construction, industrialization, and agricultural burning practices.

32.   Building on these many complementary investments, ESCAP will continue to support cities as they develop sustainable recoveries from COVID-19. Urban recoveries from the crisis should be a shared responsibility across all levels of government. They should leverage financial resources and good governance to deliver opportunities for all, foster transitions to low-carbon and climate resilient economies and improve well-being and inclusive growth now and into the future.

V.   Issues for consideration by the Committee

33.   The Committee may wish to review the present report and provide guidance on policy priorities for sustainable urban development as being key for the region's recovery from the COVID-19 pandemic. The Committee is also invited to provide guidance to the Secretariat's future work programme on sustainable urban development.

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