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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**

**Looking into the future: four scenarios for environmental action\*\***

*Summary*

Among the Sustainable Development Goals, the environmental Sustainable Development Goals are among the furthest behind, and environmental degradation is recognized as a likely contributor to the coronavirus disease (COVID-19) pandemic. In hindsight, the loss of life and the worst impacts of the pandemic might have been minimized with appropriate preparedness; global pandemic linked to environmental degradation has been predicted for some time. Other environmental changes that are already underway are also predicted to have significant potential to disrupt economies and societies, including mass extinction, changes in weather regimes, increases in the frequency of natural disaster, water insecurity, air and other pollution and unplanned urbanization.

The present document describes an Economic and Social Commission for Asia and the Pacific initiative to build scenarios for the future of Asia and the Pacific through the lens of the environment-development nexus.

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\* ESCAP/CED/2020/L.1.

\*\* The present document is being issued without formal editing.

## I. Planning for the future in a context of uncertainty

1. Among the Sustainable Development Goals, progress in the environmental Sustainable Development Goals has consistently lagged. Now, there are signs that environmental systems are near to crossing, or in the process of crossing, thresholds beyond which catastrophic environmental change is expected. The World-Wide Fund for Nature recently assessed the decline in biodiversity-related ecosystem services in Asia and the Pacific as being the most rapid and serious among all region.<sup>1</sup> These and other projections related to climate change, natural disaster, urbanization, the demand for natural resources and pollution, including air pollution and plastic pollution underline that “business as usual” portends an undesirable future.

2. The Environment and Development Division of the Economic and Social Commission for Asia and the Pacific (ESCAP) is mapping paths to a green, resilient and more equal Asia and the Pacific. It applies “transformative futures” methods<sup>2</sup> to develop scenarios for a greener, resilient and more equal Asia-Pacific in 2040 and identify the actions needed to realize this vision. The transformative futures methods used in this process draws on the intelligence of the collective for better insights on the forces that are shaping change.

3. Four types of scenarios are aimed at a time horizon of 2040:

(a) **The ideal:** the somewhat utopian and therefore unlikely, best-case scenario which provides inspiration;

(b) **The disowned:** the future that is uncomfortable and usually the outcome of “business as usual”;

(c) **The outlier:** the unlikely, but possible future shaped by the “weak signals”, emerging current drivers and potential disruptions; and

(d) **The integrated:** brings together the ideal and the disowned for an ambitious but plausible future. This is the scenario that is further explored for action planning.

4. The scenarios identify systemic changes, worldviews and narratives needed to enable the desired future vision. They will be described and discussed in an upcoming ESCAP technical publication. Based on preliminary discussions with experts, the focus is on five “big-ticket” items and four “thematic drivers”: healthy ecosystems, climate action, clean air and urbanization.

5. This document provides an overview of the process and preliminary results to date for the information of the Committee on Environment and Development. Section II shares some of the contextual issues identified by experts and describes the five “big ticket items” which will strongly influence prospects for a green, resilient and equal Asia-Pacific. Section III of this

<sup>1</sup> Based on the Biodiversity Intactness Index which estimates how much originally present biodiversity remains on average across the terrestrial ecological communities within a region and is a useful index of ecosystems’ ability to provide benefits (ecosystem services) to people, as reported in WWF (2020) Living Planet Report 2020.

<sup>2</sup> See Hebinck, A., J. M. Vervoort, P. Hebinck, L. Rutting, and F. Galli. 2018. Imagining transformative futures: participatory foresight for food systems change. *Ecology and Society* 23(2):16. <https://doi.org/10.5751/ES-10054-230216>; S. Inayatullah (2017). Ensuring Culture Does Not Eat Strategy for Breakfast: What Works in Futures Studies. *World Future Review* 2015, Vol. 7(4) 351–361. Sage publications. Available at: <http://www.metafuture.org/library1/FuturesStudies/CulturesStrategyBreakfast.pdf>, downloaded 10 August 2020.

document outlines the considerations shaping the scenarios for each thematic driver.

6. Further steps towards robust and inspirational scenarios to inform national and regional action and institutional responses, will further engage the private sector, academia, civil society and foresight experts, and a multi-stakeholder reference group. A better understanding of whether scenarios might look different in different parts of the region, will be developed through this further engagement.

**II. Four thematic drivers and five “big ticket items” that will heavily influence prospects for a green, resilient and equal Asia-Pacific**

7. A shift towards a green, resilient and more equal Asia and the Pacific, in line with the vision of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals, the Paris Agreement and other global agendas, is now more urgent than ever.

8. The Asia-Pacific region is at a crossroads. Environmental crises and pressures, inequality, losses of unemployment and livelihoods, economic slowdown and demographic change dramatically increase complexity, uncertainty, and risk in the policy landscape – including the risk of recurring pandemic. There are signs that lifting of environmental pressures will be temporary – and in parts of the region pressures may even increase as short-term economic stimulus measures ramp up environmental exploitation.

9. Through a series of workshops and internal discussions five big-ticket items and emerging issues around the four thematic drivers (table 1) have been identified so far.

Table 1  
**Big-ticket items, thematic drivers and emerging issues**

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| <i>Big-ticket items</i>  |  |
| <ol style="list-style-type: none"> <li>1. Changes in rural-urban dynamics</li> <li>2. The rise of global sustainability consciousness</li> <li>3. Evolving food systems</li> <li>4. Demand for natural resources and shifts in ownership and control</li> <li>5. Environmental governance</li> </ol> |  |
| <i>Thematic drivers and emerging issues</i>  |  |
| <p>Healthy ecosystems</p> <ul style="list-style-type: none"> <li>• Sustainable agri-food systems</li> <li>• Access and beneficiaries</li> <li>• Consumption, production and behavioral change</li> </ul>   | <p>Climate action</p> <ul style="list-style-type: none"> <li>• Electrification of transport</li> <li>• Renewable Energy</li> <li>• Ecosystems driven climate action</li> </ul> |

|  |  |
|--|--|
| <p>Clean air</p> <ul style="list-style-type: none"> <li>• Transboundary issues</li> <li>• Technology for air pollution mitigation</li> <li>• Data and norms</li> </ul> | <p>Sustainable urbanization</p> <ul style="list-style-type: none"> <li>• Urban and territorial planning</li> <li>• Urban finance</li> <li>• Smart cities and data</li> <li>• Urban resilience</li> </ul> |
|--|--|

10. The five big-ticket items are major trends which will play an important role in shaping the region’s future, creating uncertainty, possible disruption and even opportunities for acceleration. They are elaborated below and overall questions, the answers to which will outline the future of the region, are identified.

**Changes in rural-urban dynamics**

11. The future of Asia-Pacific’s territorial development is taking many forms. Urban and rural economies, societies and environments are becoming more interconnected as they are shaped by the movements of people, ideas, knowledge, skills, food, other goods and capital across metropolitan areas, intermediary cities and small towns and villages. People commute, or migrate permanently, temporarily or in “circular” migration. The coronavirus disease (COVID-19) has triggered large-scale reverse migration, the return of migrant workers from cities to their rural areas of origin.

12. In the long term, the fastest growing settlements in the future Asia-Pacific region are expected to be intermediary cities with populations of less than 500,000 people; still around 30 per cent of the region’s population are currently projected to be living in rural areas in 2050.<sup>3</sup> Urban centres of all sizes are likely to remain important economic hubs, due to continued population growth and shifting rural populations seeking economic opportunity, better education and other services, and improved quality of life. Populations also shift due to, climate change, natural disasters, and other aspects of environmental change that impact livelihoods. The stresses created on municipal administrations to continue to work towards improving the livability, economic dynamism and well-being in cities, including livelihoods, affordable housing and basic services while managing inflows of people, should not be under-estimated.

13. This is ever more important for intra-urban inequalities given the Asia-Pacific region is home to the largest number of people in informal settlements globally. Patterns of informal settlements emphasize the importance of housing and tenure security and will significantly impact land use planning and infrastructure development.

14. A number of questions emerge regarding the urban-rural dynamics. Will cities of the futures be able to provide jobs, services and livable places for populations seeking refuge from adverse shocks and stresses such as climate impacts including natural disaster and increasingly food insecurity in rural areas or will a sustainable picture emerge supported by balanced territorial development? What does this mean for land use planning and infrastructure

<sup>3</sup> ESCAP and UN-Habitat (2019). The Future of Asian and Pacific Cities 2019: Transformative Pathways Towards Sustainable Urban Development. Bangkok: ESCAP.

development in the fastest growing intermediary cities as well as in peri-urban and rural areas?

15. What impact will reverse migration have on rural areas? Will this create additional challenges for rural areas, due to the loss of remittances and reclaiming of land resources of returnees, or will the return of migrants create opportunities due to the influx of creativity, assets and a renewed focus on the rural sector? Will new opportunities be created through enhanced connectivity (physical and digital) and technologies that challenge the long held rural-urban dichotomy of development?

### **The rise of global consciousness re: sustainability**

16. The rise of global consciousness around sustainability, health and well-being, in some ways circles back to traditional knowledge systems and values. COVID-19 drove home the fact that humans are inextricably part of the natural world. Communication technology now creates new opportunities for social connections which can support the spread of global consciousness and awareness. These potent digital technologies confront society with itself; how such tools are used, and to what ends, reflect the priorities and power dynamics in the wider society.

17. These trends can positively influence political action, mobilize people and resources, guide private sector investment and responsibility, and can shape constructive multilateral responses. However, there are several counterforces. Rising global awareness may be challenged by the scale of economic need, increased income inequality in the wake of the COVID-19 pandemic, social divisions and undermining of trust in the political process. The multilateral system's ability to deal with important environmental challenges is being tested as geopolitical tensions around resource use increase.

18. Will there be real changes in worldview around sustainability that bring people, government, private sector, education and multilateral systems together to catalyze progress – or will evolving social divisions derail this progress? Will the numbers of private sector actors who are pro-sustainability reach the critical mass needed for transforming consumption and production patterns?

### **Evolving food systems**

19. There are numerous possible changes in our current food systems – encompassing production, processing, distribution and consumption. Despite a growing push for agroecology, and sustainable fisheries, large scale unsustainable food production remains the norm, and agriculture is characterized by land clearing, monoculture cropping and intensive use of agrochemicals. Globalization of supply chains means that small farmers earn a declining portion of the returns from agricultural production. The threat of climate change, biodiversity loss, water crisis and natural disaster is also apparent. Research by ESCAP shows that food supply chains across the region are becoming less climate-resilient, as food suppliers consolidate and lose diversity.<sup>4</sup>

20. In many countries the rise in global consciousness is promoting increasing prevalence of plant-based diets in some places and demand for organic foods. However, in general consumption patterns in Asia and the Pacific continue to move towards (1) increasing per capita consumption of animal

<sup>4</sup> ESCAP (2018). Policy brief: An application of resilience thinking to Asia-Pacific food systems. Asia-Pacific Sustainable Development Goal Partnership. Available at: <https://sdgasiapacific.net/knowledge-products/0000018>.

source foods and (2) increasing per capita consumption of highly processed foods high in salt, sugar and saturated fats. Hunger co-exists with some of the highest rates worldwide of obesity.

21. Which of two potential future pathways will dominate the future food system: a sustainable food system that minimizes resource use, causes limited environmental harm, and improves socio-economic outcomes or perpetuation of unsustainable and risky agriculture practices into the future? Will food systems be able to withstand the onslaught of the loss of biodiversity (including pollination services), water crisis and other aspects of environmental degradation and climate change and meet the needs of growing populations? Is a shift to agroecology as a dominant approach on the horizon, and will this be significant enough to change the picture of food systems and foster shared prosperity in 2040?

### **Demand for natural resources and shifts in ownership and control**

22. As some sections of the population are becoming more affluent, the demand for natural resources is increasing. Land use changes and direct extraction of resources mean that both use and non-use values of ecosystems are under increasing pressure to provide food, fibre and minerals, recreation, pollination of crops (by bees and insects), ensuring the flow of clean water, mitigating risks of natural disaster, climate regulation through carbon capture, and critically, maintaining other aspects of the global climate systems – oceans and their biodiversity included.

23. These pressures are reflected in the ongoing and accelerated extinction trends, water crisis, geopolitical tensions and predictions of resource wars, and human rights violations related to resource exploitation. Markets and private actors are increasingly stepping in. Control and ownership of critical resources is a contentious issue. Land “grabs” reflect changing relationships between states (including local governments), corporations, and communities. The first futures contract for water has now been launched.<sup>5</sup> Water rights markets are already well-established and have had important impacts on local communities. Along with small farmers and indigenous people, these communities have borne the brunt of the increase in demand for resources and are often disadvantaged by market solutions.

24. On the other hand, there are moves to recognize the legal personhood of environmental bodies, emphasizing a worldview of that humans are part of nature and resource stewardship, rather than a focus on rights to own and exploit.<sup>6</sup> Technological changes that shape the way in which materials and resources are used will further impact the demand for natural resources.

25. What do these trends mean for Asia and the Pacific in 2040 – in particular, access and benefit-sharing regarding ecosystems services? In line with increasing environmental consciousness, could a shift to “resource stewardship” help to protect critical resources? What worldviews will dominate the approaches taken by multilateral systems, governments and people in managing resources – will competition trump cooperative resource stewardship?

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<sup>5</sup> See <https://www.ft.com/content/0368fd8b-67d5-4fc2-94ba-a06e180b7a65> and <https://www.nasdaq.com/articles/cme-group-launching-first-of-its-kind-water-futures-product-2020-09-17>.

<sup>6</sup> See for example: <https://www.nationalgeographic.com/culture/2019/04/maori-river-in-new-zealand-is-a-legal-person/>

**Environmental governance**

26. COVID-19 has tested the capacity of governments to ensure the delivery on mandates while maintaining social solidarity and public trust. The ability of governments to balance public and private interests and to manage tradeoffs for long-term gain, is fundamental to dealing with this challenge. Inclusion and adaptiveness are also significant assets, responding to the demands for stakeholders to be heard and to contribute to decisions that directly impact them, with safe spaces to support meaningful engagement. Strengthening the social contract so that equality and inclusion are kept in focus is increasingly important.

27. These challenges extend to governance in the environmental sphere: managing environmental commons, balancing the private interest in ownership of natural resources, with ensuring that the benefits of ecosystem services are available to the public and continue to support life functions and livelihoods. Multilateral environmental agreements, intended to support global commitments and agreements on the management of environmental commons play an important role in facilitating global action and cooperation transboundary issues.

28. Will governance approaches strengthen, or undermine collaborative resource stewardship, social solidarity and accountability, and positive environmental outcomes? Will leadership evolve to follow authoritarian patterns, or will collaborative leadership emerge – including within the multilateral system, and at national, local and city levels? How will governments respond to expectations of greater voice and participation, and demand greater accountability for sustainable results? What role will digitalization and connectivity play in shaping leadership styles – and what will be the outcomes?

**III. An overview of considerations shaping scenario development**

29. By 15 October 2020, the facilitated transformative futures process that was initiated by the Environment and Development Division as complemented by experts workshops in the Secretariat engaged more than 70 stakeholders to develop initial outlines for scenarios for three thematic drivers: healthy ecosystems, climate action; and clean air. A fourth set of scenarios on sustainable urbanization was subsequently outlined on the basis of previous work of the Secretariat.

30. For each of these thematic drivers, four types of scenario have been developed (table 2):

Table 2

**Four types of scenarios for Asia and the Pacific in 2040**

|   |   |
|---|---|
| <p><b>Ideal scenario:</b> the preferred, best-case (and somewhat “utopian” scenario as per current trends).</p> | <p><b>Disowned scenario:</b> the future that is uncomfortable, going against the ideal view and what might happen if the worst aspects of “business as usual” are not corrected. This helps stakeholders understand the implications of staying the current course.</p> |
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| <p><b>Outlier scenario:</b> the unlikely, but possible future shaped by what we know, but also strongly influenced by a “weak signal” about an issue or driving force, the influence of which could strengthen over time</p> | <p><b>Integrated scenario:</b> This is the scenario that becomes the basis for identifying transformative actions and further visioning. It brings together elements of the “ideal” and the “disowned” as the basis for an ambitious, but actionable vision of the future.</p> |
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At the time of production of this document the scenarios were in various stages of completeness. An overview of the considerations that shape the integrated scenario for each of the four thematic drivers is below.

**Thematic driver 1. Healthy ecosystems**

31. This thematic driver places the evolution of agricultural production and food systems at the heart of planetary health, outcomes for people and the economy. Food systems support livelihoods, but unsustainable practices lead to declines in biodiversity, water stress and also contribute to climate change. At the same time, agricultural productivity depends on the biodiversity and functioning of land, freshwater and marine ecosystems. The way in which food systems evolve will therefore have major impacts on who is able to benefit from agricultural value add through the supply chain.

32. In an integrated scenario for Asia-Pacific in 2040, a food system in which at least 80 per cent of needs are met through sustainable intensification including agroecology approaches, and sustainable fisheries and oceans management means that access to affordable and nutritious food is universal in all countries. The roll-back of environmental pressures prompt the recovery of marine and freshwater systems, boost climate-resilience, and dramatically-reduce emissions from the agricultural sector. The opportunities for countries that drive this trend to reap major economic benefit are also considered.

33. The scenario is supported by shortened and more efficient supply chains, consumer awareness that strongly link health with healthy eating and sustainably produced, plant-based food, technological innovation and digitalization, market incentives and regulations supporting ecosystem function and farmer organization and empowerment, among other systems-level interventions. Multi-lateral action to secure transboundary ecosystems will also play an important role – in particular in the sphere of ocean resources.

**Thematic driver 2. Climate action**

34. For the purposes of this exercise, climate action encompasses the range of actions needed to keep planetary warming within reasonable limits – i.e. the +1.5 degrees C of warming identified by the Intergovernmental Panel on Climate Change, and to ready Asia-Pacific societies to successfully adapt to the environmental, economic and social changes that are already underway. Climate changes poses an existential threat, requiring the mobilization of both developed and developing countries and people across the region on both mitigation and adaptation fronts.



35. There is strong support for prioritizing climate action and the view that climate change is as serious as COVID-19.<sup>7</sup> All of the “big ticket” items described above will impact, and be impacted by, the success or failure of climate action. Trends in renewable energy investment, electric vehicles, and ecosystems drive climate action. transport solutions are broadly supportive with positive outcomes while the role of ecosystems in climate regulation is also well recognized.

36. The integrated scenario envisages a region that, by 2040, has reaped the benefits of investing in mitigation and adaptation -in time to stave off the worst impacts of climate change. A “clean energy economy,” universal access to affordable clean energy and cities and rural economies that are equipped to navigate climate change are considered. Such changes would bring the region to the drivers’ seat in global climate action. The scenario hinges on global consciousness, social solidarity, unlocking finance and substantial changes in energy systems and infrastructure and deepening climate adaptation investment.

### **Thematic driver 3. Clean air**

37. The Asia-Pacific region is home to many of the cities with the worst air quality in the world. Air pollution in the form of particulate matter generated by agricultural burning, fossil fuel-based power, transport and vehicle emission, industrial pollutants and other sources places more than ninety per cent of the region’s population exposed to air that, according to the World Health Organization, poses risks to health. Given this transboundary nature, air pollution is an ever-increasing regional issue requiring regional solutions. However, regional cooperation to improve air quality has been fragmented and to date demonstrated limited success in improving air quality across Asia and the Pacific. A lack of consistent data, standards and regulations across the region provide a poor foundation for regional cooperation.

38. While technologies exist to reduce or mitigate air pollution, including for clean energy, mechanization of agricultural processes, clean industry and transportation, they have not been deployed at the scale necessary or where needed nor have technologies been transferred at scale to countries facing significant economic pressures that result in pollution-intensive developments.

39. A lack of domestic/national regulations on pollutants, continued reliance by countries and industry on carbon-based fuels and a lack of harmonized data and standards have limited progress on cleaning the region’s air while demands for energy, food and transportation continue to increase the sources of air pollution.

40. The integrated scenario for clean air in Asia-Pacific by 2040 includes a vision of a region in which all people have access to clean air, for most of the year, and in which the lifting of economic and health burdens has boosted poverty reduction efforts and made cities more competitive globally. It is likely to be based on coordinated action by regional, national and urban stakeholders to accelerate the adoption of clean air technologies and to decouple economic development from ecological damage. The resulting increases in public

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<sup>7</sup> IPSOS Global Advisor (2020). How does the world view climate change and COVID-19? See for example as shown in a major global poll <https://www.ipsos.com/sites/default/files/ct/news/documents/2020-04/earth-day-2020-ipsos.pdf> - 14 countries polled are: Australia, Brazil, China, Canada, France, Germany, Great Britain, India, Italy, Japan, Mexico, Russia, Spain and the United States of America. Of these: 9 are nationally representative samples, the other 5 are based on a national sample that is more urban & educated, and with higher incomes than their fellow citizens.

health could provide the foundation for sustainable development in a manner which protects the vulnerable and provides opportunities for enhanced quality of life throughout the region. Coordinated action among countries may include harmonized standards, the sharing of data and technologies, and monitoring through enhanced regional agreement on air pollution.

#### Thematic driver 4. Sustainable urbanization

41. Urban population growth fueled by a structural transition to manufacturing and services has transformed Asia-Pacific cities into centres of domestic consumption of goods, services, housing and infrastructure, thus initiating a cycle of growth and investment into productive activities, land, real estate, transportation, infrastructure and services. Urbanization rates in Asia-Pacific soaring from 18 per cent in 1950 to 50 per cent at present,<sup>8</sup> meant settling close to 2 billion residents into expanding urban areas over this period. The pressure to accommodate these massive numbers resulted in quickly planned and built settlements that often times emerged organically, yet with sub-regional variations across Asia-Pacific. The built environment in many of Asia's burgeoning large and medium size cities is subsequently a mix of planned, but mostly *ad hoc*<sup>9</sup> settlements, comprising underutilized land parcels and declining or decaying neighborhoods. This results in spatial inefficiencies, including congestion costs, and offer poor quality of life to residents, and the proliferation of informal settlements, in what can be called "messy urbanization".

42. Urban transformation has however led to positive outcomes for people, as measured by indicators such as rising income levels and poverty reduction.<sup>10</sup> It is estimated that of the 3.2 billion people defined globally as 'middle class' by end-2016 nearly half lived in urban Asia. Of the next billion entrants to 2022 globally, 90 per cent will be in Asia.<sup>11</sup> Masked under this aggregate prosperity, cities are also experiencing growing economic and social inequalities, inequitable access to social and economic opportunities, and increased environmental stresses. By 2050, an estimated 70 per cent of the region's population will live in cities.<sup>12</sup> The forces shaping this urban future include demographic transition, technological disruption and climate-change adaptations. Further, with the development of vast systems of cities<sup>13</sup> across the region, comprising large and small agglomerations, the population and physical

<sup>8</sup> ESCAP and UN-Habitat (2019). The Future of Asian and Pacific Cities 2019: Transformative Pathways Towards Sustainable Urban Development. Bangkok: ESCAP.

<sup>9</sup> Ellis, Peter, and Mark Roberts (2016). Leveraging Urbanization in South Asia: Managing Spatial Transformation for Prosperity and Livability. South Asia Development Matters. Washington, DC: World Bank. doi: 10.1596/978-1 4648-0662-9. License: Creative Commons Attribution CC BY 3.0 IGO

<sup>10</sup> ESCAP (2019). Economic and Social Survey of Asia and the Pacific 2019. Bangkok: ESCAP.

<sup>11</sup> Kharas, Homi. 2017. The Unprecedented Expansion of the Global Middle Class: An Update. Global Economy and Development Working Paper, 100, February, 2017. Washington DC: Brookings Institute.

<sup>12</sup> ESCAP and UN-Habitat (2019). The Future of Asian and Pacific Cities 2019: Transformative Pathways Towards Sustainable Urban Development. Bangkok: ESCAP.

<sup>13</sup> The term 'system of cities' is used to denote the territorial and functional inter-linkages between urban settlements (urban systems) of different sizes that together constitute contiguous subnational spatial economies. The typical urban system comprises one or two very large urban agglomerations that have diverse economic bases, and smaller cities that are more specialized in their economic output, typically coordinated through the primary nodes. Mega-regions and corridors are extreme versions of systems of cities.

growth of cities is stemming rural to urban migration, which has likely peaked and projected to decline further by 2050.<sup>14</sup>

43. The integrated scenario for sustainable urbanization in Asia-Pacific in 2040 starts where cities are safe and inclusive allowing all residents to thrive, in sustainable built environments that reduce risks and vulnerabilities. They have integrated interventions which improve the functioning of land use planning, strategic densification, and spatial balance across a system of cities. Cities in turn would address critical issues concerning peri-urban expansion, inequality, the urban-rural continuum and the conservation and management of natural resources. This integrated scenario would also see cities adopting nature-based solutions across urban climate resilience investments. The further uptake of new data and innovative technologies for smart cities would in turn assist in the transition to accessible and integrated digital infrastructure systems. Underpinning all of this, cities would need to be largely self-financing and resource efficient to enhance urban management.

#### IV. Developing pathways for change: making the integrated scenarios a reality

44. Aimed at 20 years from now, in 2040, the elements of the scenarios outlined above are anchored in expert views, scientific projections, and an understanding of the socio-cultural and economic systems that shape the region. More work is needed to better investigate the picture in different parts of the region and the outlook for different stakeholder groups. However, even at this stage, and taken together, the scenarios show that the future of the region is fundamentally tied to success or failure in stewardship of the environmental system and response to the climate change challenge. The scenarios show that “business as usual” is likely to drive significant tensions between and within countries, climate migration, inequality, and hardship. They also show that while solidarity is needed to achieve the integrated scenarios, deepened social divides are also plausible part of future scenarios, without effective governance and leadership.

45. Brainstorming in the first workshop elicited rapid fire responses to this question: What is impossible today, but if possible, would make a vision of a green, resilient and more equal Asia-Pacific a reality? The responses from participants clustered heavily around the themes of “open governance and collaboration”, “changing the way the economy functions”, “green and inclusive infrastructure”, and enriched education, and social protection.

46. Participants also identified dominant narratives and practices that entrench current practice. Policy interventions, strategic investments and action planning which disregard the need for shifts away from such narratives and practices, and system-level interventions, are unlikely to lead to a shift away from an undesirable future.

47. What then, are the pathways for change to secure a green, resilient and inclusive Asia-Pacific? The integrated scenarios outlined above will be the most important focus for further investigation and defining these pathways. Preliminary work on these scenarios point to actions that include:

(a) **Multilateral actions and agreements.** Examples include: Joint action on air pollution, for example will require effective multi-lateral agreement backed up by state of the art and cooperative monitoring; Marine and terrestrial

<sup>14</sup> United Nations Habitat III Secretariat. 2017. “Transformative urbanization for a resilient Asia-Pacific” Habitat III Regional Report, Asia and the Pacific.

protected areas that cover at least one-third of the region’s open waters and are supported by multilateral agreements; and. regional agreement on accelerated Paris Agreement implementation.

(b) **Addressing changes at the systems level.** Examples include, shortening the food supply chain and bringing consumers and producers together in localized and “fair” food systems; increased access to information and communication by closing digital divides; incentives for reducing carbon emissions with carbon pricing instruments; and balanced territorial development.

(c) **Shifts in dominant narratives or worldviews.** For example, shifting natural resource management paradigms from resource ownership to resource stewardship; building public awareness of the link between health and sustainability of food system; and breaking rural-urban dichotomies.

48. The results of the work to date show the potential of transformative futures methods to bring scientific information and stakeholder views together to better understand the risks of “business as usual” – and the potential rewards of systemic change. The secretariat invites member states and other stakeholders to participate in reviewing the scenarios and contributing specific information at this link: <https://survey.alchemer.com/s3/5977076/Contributing-to-defining-Asia-Pacific-2040-scenarios>.