



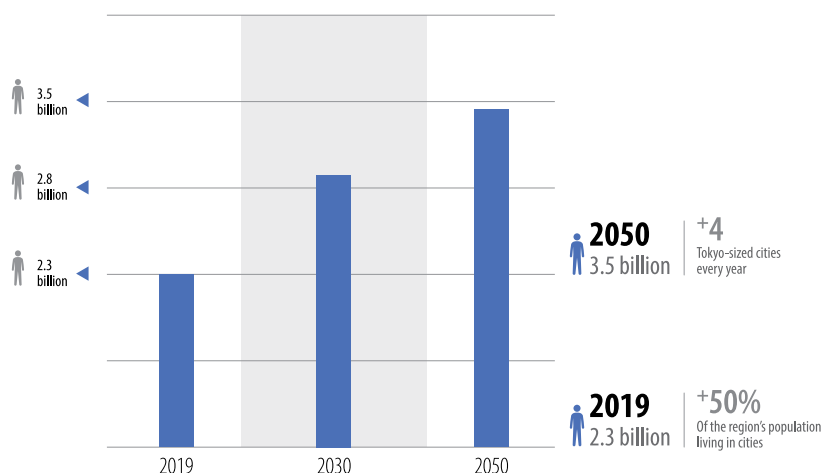
# URBAN AND PERI-URBAN DEVELOPMENT

Many of the essential transformations needed to meet the Sustainable Development Goals (SDGs) will need to be met in local areas and by local actors. The Global Sustainable Development Report (GSDR) 2019<sup>i</sup> and the political declaration of the High-level political forum 2019. These transformations are mutually reinforcing and strongly linked to the Sustainable Development Goals (SDGs). The report identifies six entry points and four levers to accelerate progress across all 17 SDGs at the global level<sup>1</sup> including *Urban and Peri-Urban Development*.

## I. URBAN AND PERI-URBAN DEVELOPMENT IN ASIA AND THE PACIFIC

United Nations demographers estimate that Asia and the Pacific became majority urban for the first time in history in 2019 with more than 50 per cent of the region's population living in cities. The region's urban population exceeded 2.3 billion, comprising 54 per cent of all urbanites on the planet. The region's number of urban dwellers is expected to rise to more than 2.8 billion in 2030 and reach nearly 3.5 billion in 2050 (see figure 1). Those numbers equate to adding four Tokyo-sized cities every year.<sup>ii</sup>

Figure 1: Projected urban population in Asia and the Pacific, 2019 to 2050



The addition of 1.2 billion new residents in Asia-Pacific cities between now and 2050 will have profound implications for the region's economy, society and environment. Urban residents will need green, productive jobs for all to allow for sustainable healthy livelihoods. They will need affordable housing with transport links to avoid the proliferation of slum-like conditions and urban sprawl that consumes agricultural and natural land. They will need the necessary water and sanitation infrastructure to prevent environmental degradation, reduce disaster and public health risks.

Source: United Nations Economic and Social Commission for Asia and the Pacific and United Nations Human Settlements Programme (2019), *The Future of Asian & Pacific Cities Report (ST/ESCAP/2868)*, Sales No. E.20.II.F.1

<sup>1</sup> Entry point 1 – Human well-being and capabilities, Entry point 2 – Sustainable and just economies, Entry point 3 – Food systems and nutrition patterns, Entry point 4 – Energy decarbonization and universal access, Entry point 5 – Urban and peri-urban development, Entry point 6 – Global environmental commons, Lever 1- Governance, Lever 2- Economy and Finance, Lever 3- Individual and Collective Action, Lever 4- Science and Technology

They will need to harness the potential of digital innovations to drive positive social change. Urban and territorial planning frameworks will need to be designed and strengthened to support consequential densification, livability standards and inclusive public green spaces within an enabling national, metropolitan and local institutional environment. Governance systems will need to evolve to support a positive transformation from rural to urban societies.

Urbanization in the Asia-Pacific region is occurring through three processes: migration, population growth of cities and the reclassification of rural land into urban settlements. While the pace of urbanization will be slower than in decades past, the estimates still indicates fairly rapid urbanization in Central Asia, South Asia, South-East Asia and the Pacific, a trend that can risk overwhelming cities' capacities to adequately plan for and manage growth. In some countries, the opposite problem will require attention: dwindling urban populations risk creating shrinking cities with decaying or under-utilized infrastructure. Similarly, a contracting tax base would undermine social stability and exacerbate community vulnerabilities.

The region's urban economies have developed through largely through spontaneous, underregulated and environmentally exploitative models. Rapid, inefficient and unplanned urbanization along with unsustainable consumption patterns and changes in lifestyle over recent decades together have predominantly resulted in increased inequalities, spatial and economic informality, environmental degradation, increased greenhouse gas emissions, loss of biodiversity, unsustainable and inefficient land use, increased pressure on natural resources, unsustainable generation of waste, exposure to pollution and hazards, and vulnerability to disaster and climate change risks, all of which require urgent integrated responses and political action.

SDG 11 recognizes that urbanization is a transformative force for development and cities should be enabled to take the lead in addressing many global challenges. However, most of the 234 statistical indicators to measure global progress towards the SDGs have an urban dimension and about one third of SDG indicators are measured at the local rather than national level.<sup>iii</sup> In short, any country serious about meeting its obligations to achieve the SDGs will find the path to sustainable development runs through its cities, towns and human settlements.

The New Urban Agenda, adopted by UN member states at the third United Nations Conference on Housing and Sustainable Urban Development (Habitat III) offers a road map for implementing SDG 11 and the urban dimensions of all the SDGs.

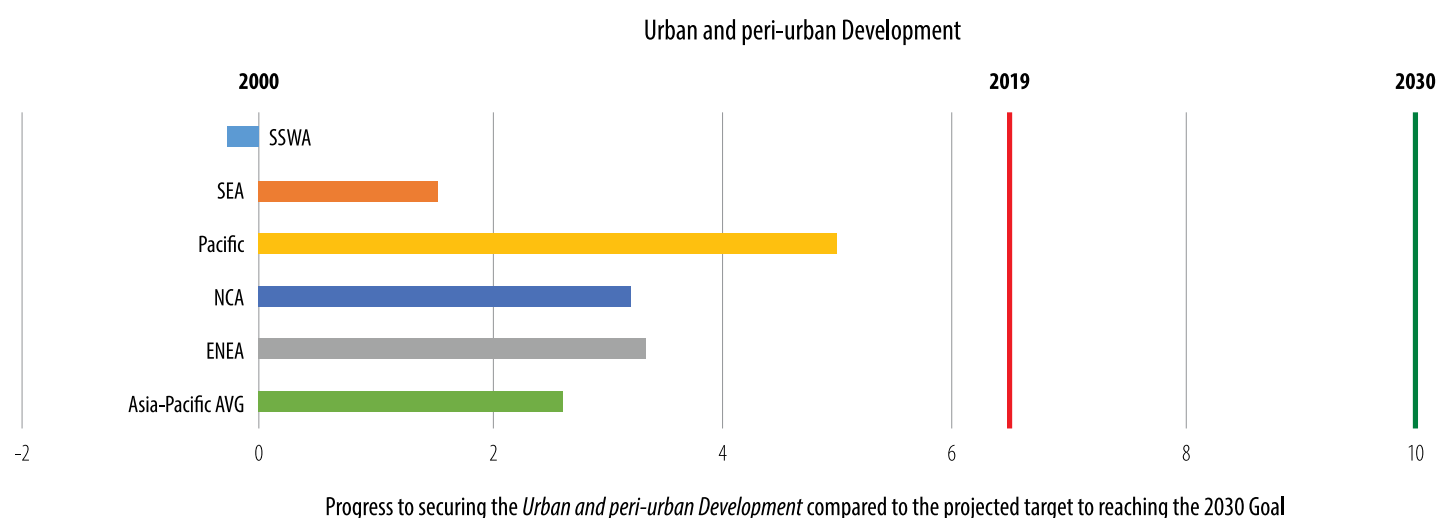
## II. PROGRESS AND KEY CHALLENGES FOR ACCELERATION OF SUSTAINABLE URBAN AND PERI-URBAN DEVELOPMENT IN ASIA AND THE PACIFIC

Taking a closer look at the urban and peri-urban development transformative area from the GSDR shows that based on some of the relevant SDG targets and indicators, there are important shortcomings in the progress at this point. No subregion has made adequate progress along the urban and peri-urban development transformative area to meet the SDGs (see figure 2). This underlines the need to think about strategies for accelerating transformation.

With respect to urban and peri-urban areas, the region has galvanized rapid urbanisation as a source of economic vitality and poverty reduction, especially in countries like China. South and South West Asia has regressed from 2000 levels in this area among the sub-regions, mainly due to worsening air pollution (the subregion recorded the highest annual mean concentration of PM2.5 in urban areas among all sub-regions) and increasing damage and losses from natural hazards and generation of waste.



Figure 2: Snapshot of average SDG progress since 2000 for the urban and peri-urban development transformative area, by ESCAP sub-region



Source: United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), calculations based on methodology from Asia and the Pacific SDG Progress Report 2020 (forthcoming) and data from the ESCAP Statistical Online Database. Available at [http://data.unescap.org/escap\\_stat/](http://data.unescap.org/escap_stat/) (accessed on 15 February 2020).

Note: The green line represents targets to be achieved in the 2030 Agenda. If the region was on track to achieve these targets across the six areas, the red line would have been hit by 2019.

Given the lack of adequate progress in sustainable urban development, it is not surprising that despite improvements at a national aggregate for urban areas, the region is home to over half a billion slum dwellers, which constitutes over half of the world's total slum population.<sup>iv</sup> Data on intra-urban inequalities and those which compare indicators for slum versus non-slum areas are an important way forward to leave no one and no place behind in the region. Data on peri-urban areas is often not available, overlooked or problematic, despite high growth rates in the region. Although these places are part of the functional city or metropolitan area, they often fall outside of the administrative boundaries and are counted as part of rural populations. A World Bank study focusing on urban issues in South Asia concluded that peri-urban areas in the sub-region are experiencing the highest population growth rates as the location of numerous industrial investments. Peri-urban areas can also provide affordable housing options to migrants but poor transport connectivity to business districts and livelihood centres often deprive the peri-urban communities here from decent income-earning opportunities.<sup>v</sup> The last mile challenge of providing quality, affordable, resource efficient and resilient infrastructure to this expanding urban population is poised to become even more significant in future.

The region's cities already have striking disparities between rich and poor and disasters are likely to increase these still further. Based on the UNEP/UNISDR multi-hazard risk index, 170 cities across Asia and the Pacific are in areas classified as 'extreme risk', while 314 are in high-risk areas and 154 are in medium-risk areas. This risk emanates from exposure and vulnerabilities to tropical cyclones and typhoons, earthquakes, floods and landslides. In the Asia-Pacific region by 2015-2030, it is estimated that the population in the 'extreme-risk' areas is expected to grow more than 50 per cent in 26 cities, and by 35 to 50 per cent in 72 cities. Disasters in cities and peri-urban areas are likely to exacerbate inequalities. This can be illustrated by an analysis of 57 Asian and Pacific cities. For a group of nine megacities (10 million or more people) 56 per cent of their inhabitants live in cities that have medium or high levels of inequality and are in extreme disaster risk areas. For a group of nine large cities (5 to 10 million people) 78 per cent of their inhabitants live in cities that have medium to extreme inequality and are in extremely high disaster risk areas.<sup>vi</sup> The region needs to make faster progress in environmentally sustainable and disaster resilient urbanization which is of particular concern given rising air pollution as well as rising human and infrastructure exposure to multi-hazard disaster risk, notably heatwaves, disease outbreaks and urban flooding, in urban centres of the region.

Marine plastic litter from cities can cause the degradation of the marine ecosystem and its species by effecting their health and functions which subsequently, in the long-term contributes to their vulnerability and decline in socio-economic value to humans.<sup>vii</sup>



It has been estimated that South East Asian countries contribute to over half of land-based sources of marine plastic pollution.<sup>viii</sup> Further, coastal cities in South East Asia living 50 kilometres from the coastline generated 99.5 million tonnes of marine litter. The contribution to marine plastic from mismanaged waste (waste that was littered or inadequately disposed) from South East Asian coastal cities is also considerable as an estimated 4.8 to 12.7 million tonnes entered into oceans.<sup>ix</sup> It has been estimated that 75% of land-based sources of marine plastic pollution are from uncollected waste and 25% comes from leakages in the waste management systems.

### III. COUNTRY LEVEL ANALYSIS ON ACCELERATION TOWARDS SUSTAINABLE URBAN AND PERI-URBAN DEVELOPMENT

There are several key areas for cities to accelerate implementation of the 2030 Agenda for Sustainable Development and localize the SDGs in the Asia-Pacific region while meeting the vision of the New Urban Agenda successfully. These include but are not limited to: more sustainable integrated and risk-informed urban and territorial planning; stronger capacities for resilience; adaptable people-centered technological innovations; and innovative long-term financing. Each are discussed in turn with country level examples in this section.

- **Urban and territorial planning**

Urban and territorial planning is the bedrock of the sustainable future city. At whatever stage of a city's development, whether an entirely new urban extension or a city with ancient roots, a single-plan vision is essential to create an agreed road map for a city's future growth or shrinkage. Thoughtful planning has been key for the Asia-Pacific cities that rank among indices of the world's most liveable, sustainable and economically successful cities. As indicated in the GSDR, the city planners of the future will need to make sure that the cities they design can accommodate all forms of short-term shocks and long-term stresses.

The National Resilience Programme in Bangladesh is strengthening the capability and capacity of the Local Government Engineering Department in order to achieve resilient outcomes through risk-informed, gender-responsive infrastructure systems. This requires an integrated approach to infrastructure planning investment decisions based on evidence collected around existing assets condition and vulnerability, the evolving service needs, and changing nature of natural hazards which affect the effectiveness of the services being delivered by critical public infrastructure systems. It also includes upgrading systems and processes to enhance the institutional support in the planning, design, and construction of new infrastructure and upgrades to existing infrastructure. Supported by UNOPS, the programme supports the country's long-term development agenda and is intended to be a model which can be replicated with other ministries and other countries across the region.

New forms of planning technologies also play an important role to engage citizens to promote urban growth and regeneration and optimize urban-rural and city-region collaborations. Collectively supported strategies can bring more benefits than only seeking formal land titles in informal settlement upgrading. Surabaya, Indonesia is a positive example of how the process of engaging communicates in city governance and can form a pathway for other cities to implement inclusive and green territorial development planning. Surabaya successfully implemented its flagship Green Kampong programme established in 2014. The programme has become an innovative citywide planning and development strategy that combines tools, such as decentralizing planning decisions, while encouraging local democracy, participatory planning and budgeting, and environmental management.<sup>x</sup>

- **Urban resilience**

In a world of increasing climate emergencies, planning must serve more than just charting needs against future population growth or decline. Urban resilience is the next priority that must be layered with planning in order to ensure the prosperity of Asia-Pacific cities. As indicated in the GSDR, cities will need to do this while employing climate responsive and risk-proof infrastructure and housing, and nature-based infrastructure solutions as particularly potent tools to create sustainable and resilient outcomes for all.



Sri Lanka, for example, has produced and is implementing a National Physical Plan prescribing compact and sustainable urbanization.<sup>xi</sup> In Colombo, the city government recently decided to integrate wetlands into the city's development plan following increased flash-flooding events in rapidly expanding urban areas. After the city identified that 40 per cent of local wetlands had been degraded or paved over, it was decided that 2,000 hectares would be completely safeguarded from development. Grey or human engineered infrastructure is being developed in combination to support the optimum functioning of natural mangrove ecosystems. In parallel with this measure, the national Government has set up a ministerial-level agency that manages the highly urbanized Greater Colombo region.<sup>xii</sup>

The region's cities will benefit greatly by recognizing the scale and dynamism of the informal economy in order to build enduring urban resilience and leave no one behind. The informal economy includes home-based workers, street vendors, informal day labourers and domestic workers. In the Asia-Pacific region, 68 per cent of employment is informal<sup>xiii</sup> although the positive interlinkages between the formal and informal economies are often not well recognized or reported.<sup>xiv</sup> Cities and national Governments have a choice to support or hinder the livelihoods of these groups, and policies are needed to support informal workers' transition to higher value-added activities. In recent years, attitudes have been changing with greater understanding of the dynamism the informal economy brings. For example, movements have emerged in Bangladesh and Indonesia to support informal entrepreneurs and small business owners to access formal sources of financing.<sup>xv</sup>

Outside city limits, there are also risks in peri-urban areas. These transitional zones between urban areas and rural zones provide critical ecosystem services that if eroded or mismanaged can heighten the risks of floods, droughts and landslides. Even when peri-urban areas are formally subsumed into cities it is difficult to correct constructions or rebuild to meet planning and safety standards. In Ho Chi Minh City, for example, land and markets pushed the poor and vulnerable to settle in peri-urban areas with higher risk and exposure to floods. As a result, the area exposed to flood increased by more than 24 times between 1989 and 2015.<sup>xvi</sup>

- **Smart and inclusive cities**

Technology has become an irreplaceable component of 21<sup>st</sup> century lifestyles, one that extends to city management. So-called smart cities that rely on advanced technology now have endlessly customizable tools at their disposal to monitor and model nearly every aspect of urban life. The smart cities of the future must be people centred, supporting infrastructure and innovative technology with inclusive governance and security systems to improve the quality of life of citizens, sustainability and resilience, and enhance their interactions with the urban environment.

Wetlands play an important role in Luang Prabang city, in the Lao People's Democratic Republic, as central to its natural drainage system and for food production. However, much of this fragile ecosystem suffers from pollution and illegal encroachment. Wetland degradation threatens residents' quality of life and puts the city under tremendous threat of flooding. The city is planning to roll out a rehabilitation plan for its 183 ancient wetlands and small ponds through its membership in the Association of South East Asian Nations (ASEAN) Smart Cities Network. In its upcoming Master Plan for Urban Drainage and Sewage System, Luang Prabang plans to collect extensive data through sensors and geographic information systems (GIS) to closely monitor the condition of its wetland ecology, such as water levels and extent of urban development, in order to inform planning decisions.<sup>xvii</sup> Future smart cities need to focus on improving outcomes for residents and harness the creativity of the technology sector in shaping the integration between the physical and digital environment in the Asia-Pacific region.

- **Urban finance**

Ultimately a well-planned, resilient vision for a sustainable city that employs inclusive technology will not be realized without a means to pay for everything ranging from robust planning capacity to resilient, green infrastructure. The world of municipal finance is vast and complex, but there are concrete instruments, such as land-linked financing and pollution pricing, where cities can seize the fiscal reins in order to achieve sustainability objectives. This, however, will require that national governments assign local taxes to municipal governments with powers to decide tax rates.

Land value capture tools, such as land pooling, can significantly ease the pressure on the Government to fully finance infrastructure delivery, assuming the city has a well-functioning taxation system. It also represents a potentially



useful alternative to solving traditional land acquisition issues, by facilitating public participation in future urban planning. This has been historically used as a land assembly mechanism in Japanese cities and has also been very successful in Ahmedabad, India.

More recently, a land pooling and regulation scheme was designed and implemented for a road construction urban upgrading project in Tra Vinh, Viet Nam, a city that relied on central and provincial government transfer to provide 80% of its budget. The project increased the value of the developed land by 3.5-5 times and affected land values have tripled since the urban upgrading project got underway. As the first land pooling project in Viet Nam, the first challenge concerned the absence of a legal framework. The project backers addressed this challenge by defining best-suited approaches (including a standard land recordkeeping format), increasing capacity for the project management team and drafting land decrees. In January 2017, Viet Nam approved its first legal framework for land pooling/readjustment. The second challenge was in obtaining agreement from households and communities. A community working group was established at the beginning of the project that included representatives from the community, city government and local organisations that assisted the project management team in consultation and communication with households. The mayor also played a crucial role in securing political support from the provincial government and guiding policy decisions. The third challenge was the lack of funding sources for infrastructure construction. As a result, the city proposed to cover the financing gap by using city budget and expected revenues such as land transaction tax and land sale price to increase after the project was completed.<sup>xviii</sup>

Transit-oriented development (TOD) solutions, which situate high-density housing and commercial areas near public transport nodes, are an approach to negotiate sustainable urban expansion into adjacent regions. Urban expansion has led to car or motorcycle saturated cities in many Asian countries. By contrast, TOD solutions were crucial in the development of contemporary Japanese city agglomerations and cities like Mumbai and Indore.<sup>xix</sup> TOD makes use of new rapid bus and rail networks, thereby reducing spatial development sprawling out along highways. Multi-nodal approaches distribute housing expansion and land-value capture can accommodate peri-urban settlement upgrading. Improved and subsidized public transport can also increase labour mobility.

The approach requires a strong vision and regulatory support with regard to density, mixed-use, walkability, park-and-ride requirements and public-private joint development.<sup>xx</sup> In general, planning restrictions easily send signals to the market of land supply restrictions. Hence, the approach only works if sufficiently ambitious in scale and scope as well as supported by governance that stretches beyond short-term electoral cycles. Kuala Lumpur's application of Transit Planning Zones, with standards both for population and jobs density, is a good example. These zones need to be complemented with mixed-use regulations, incentives and walkability standards.<sup>xxi</sup>

Finally, urban road pricing schemes offer a financing opportunity for cities to impose charges on vehicles entering into a specific urban zone, such as a central business district. Such charges can be made on a per entry basis or across longer periods, although typically no more than a single day. Such schemes are designed to influence car-dependent behaviour and support better air quality outcomes by shifting travel by time, mode and route, as well as reducing overall travel demand. Municipal governments in developing countries seeking to enact road pricing, however, must reconcile their local priorities with national policies to promote domestic consumption and industrial growth. Many countries still heavily subsidise their domestic car industry, for example, which would constitute a conflicting agenda with any effort to reduce car use. If examined as a component of the overall fiscal policy package, a congestion tax could be a costly-to-implement policy measure with little ultimate impact when the public sector continues to drive incentives for more cars. Consequently, coherent alignment with national policies, such as phasing out some subsidies and incentives, should also be part of any multi-level governance strategy to reduce auto congestion and improve urban air quality in developing countries.

## IV. POLICY RECOMMENDATIONS FOR ACCELERATION

Asia-Pacific countries need to accelerate progress in urban and peri-urban areas by empowering local governments and community groups to deliver against the sustainable development goals in an integrated fashion. While it has been estimated that 65% of the total SDG targets need to be delivered by local authorities and actors, this is not matched with requisite decision-making authority required to drive local implementation against all urban related targets.<sup>xxii</sup> In line with the GSDR and as a response to these complex challenges and to seize the opportunities



which urban centres can play in accelerating localisation of the SDGs and New Urban Agenda in the region, the 15 policy pathways on urban and territorial planning; urban resilience; smart and inclusive cities; and urban finance, highlighted in *The Future of Asian & Pacific Cities Report 2019* are particularly important to chart a new course for urban sustainability.<sup>xxiii</sup> To realize the future vision of inclusive, safe, resilient and sustainable cities in Asia-Pacific will require approaches to which all countries and urban stakeholders must contribute to:

**1. Sustaining the momentum for change – accelerate decentralization to ensure that local governments have the appropriate responsibility, authority, resources, and capacities to take action for sustainable urban development.**

Partnerships between national and local governments and their communities in localising and accelerating the sustainable development goals should be enhanced. Greater decentralization of functions to local authorities to support their efforts to deliver the sustainable development goals on the ground should specifically focus on deepening fiscal devolution processes to address the issue of “unfunded mandates” which is hindering progress against all of the goals. Many of the sustainable development goal indicators require data collection, including geographic, sex, age and disability disaggregated data and for spatial indicators, from sub national actors to effectively measure and report on progress. Harmonization, cooperation and capacity development aimed at sub national data collectors in partnership with national statistical authorities should be a priority moving forward for sustainable urban and peri-urban development.

**2. Sustainable urban and territorial planning provides the foundation for an urban future which leaves no one and no place behind.**

All cities must strengthen their capacities, adopt inclusive planning and urban management processes, including by strengthening foresight functions, mobilising all stakeholders, and develop long-term spatial and investment plans that effectively orient their mission and strategies for urban and peri-urban areas. These planning measures should prioritize and address unsustainable urban growth, as well as integrate quality-of-life goals and resource implications into urban and territorial planning as a means to accelerate progress for all people and places. Regional planning approaches need to be adopted for the development of peri-urban areas, along with an institutional framework for an efficient planning hierarchy integrating city and regional plans.

**3. Guard against current and future urban risks by building city resilience.**

To ensure sustainable growth and development, it is critical that cities adopt and implement resilience strategies that apply systems thinking, break down governance siloes to improve policy efficacy, enable prevention of new risks and mitigation of existing climate and disaster risks, provide opportunities to scale up nature-based infrastructure solutions, an optimal mix of green and grey infrastructure and engage the creativity of the urban poor as solution providers to guard against potential shocks and stresses, including disasters induced by natural hazards.

**4. Capitalize on appropriate technologies with inclusive governance to realise people-centred smart cities.**

City leaders must develop smart cities that are people centred, supporting accessible, resilient infrastructure and innovative technologies with inclusive governance and security systems to improve the quality of life of citizens and enhance their interactions with the urban environment.

**5. Mobilize financing to invest in sustainable urban solutions at scale.**

Cities must access or adopt innovative investment tools, such as land value capture instruments and environmental user fee models. These can serve as important levers to catalyse economically impactful capital investments that create long-term value for citizens, the environment and the city as a whole. When addressing the urban infrastructure gap, cities in developing countries can opt for green and sustainable choices that consider life-cycle benefits and resilient features in their design which incorporate the full spectrum of environmental costs and disaster risk impacts, such as environmental degradation and carbon emissions.

While not every policy recommendation will prove applicable to every city in the region – a near impossibility given the size, scale and diversity found in Asia and the Pacific – they offer a useful summation of contemporary urban thinking as the region’s cities are poised to enter the critical final decade to deliver on the SDGs. If the 2019 demographic milestone making Asia and the Pacific a majority urban region is a potential tipping point, then these recommendations are designed to tip the scales in the right direction towards creating sustainable, resilient and inclusive cities for all.



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