

Make cities and human settlements inclusive, safe, resilient, and sustainable

I. SUMMARY

As the Asia-Pacific region grows increasingly urbanized, the Sustainable Development Goal (SDG) 11 is a comprehensive and action-oriented blueprint for advancing sustainable cities and communities. It proposes to readdress how we plan, finance, develop, govern and manage cities and human settlements in line with the New Urban Agenda. In essence, SDG 11 acts as a strategic lever to achieve the SDGs by emphasizing and guiding local action. These actions are more important than ever as the region recovers from the aftermath of the COVID-19 pandemic while struggling to adapt to multiple interlinked crises.

The lack of spatial, granular qualitative, and quantitative urban data affects the creation of evidence-based policies and programmes designed to respond to urban dynamics and related challenges. The lack of data also undermines efforts towards meeting the 'leave no one' behind promise. As countries and cities move towards increased decentralization and localized decision-making, the need for strengthening













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local data systems, such as urban observatories that support the tracking of local progress to citizens and national authorities, has grown.

The key areas of progress include improvements in air quality and the proportion of those living in slums, along with the growing adoption of national and local disaster risk reduction (DRR) strategies. However, this progress is contrasted by significant regressions in persons missing or affected by disasters, economic loss, and damage to infrastructure and services. Road safety measures also remain suboptimal in the Asia-Pacific region.

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Both forward progress and regression have been seen in Goal 11 indicators (Figure 1).

Figure 1: Progress on Goal 11 indicators toward the 2030 targets.



Urban areas are ground zero for the COVID-19 pandemic, with an estimated 90 per cent of reported cases globally concentrated in cities.¹ Cities have been the epicentres of the global pandemic, given their higher population levels, densities, and greater local and global connectivity levels. In addition to the tremendous loss of life and the unsurmountable pressure placed on the health systems and essential workers, many cities were at a standstill during the pandemic due to lockdowns or physical movement restrictions, which had severe social and economic implications.

The pandemic brought to the forefront many issues facing urban dwellers, including the importance of adequate housing, the need for social protection measures and basic services, the importance of technological and digital solutions, and the need to revisit urban planning to create greener and more liveable cities. These issues are especially acute in poorer areas, where the pandemic exposed deeply rooted

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inequalities.² For example, poor urban households often have little access to basic sanitation. Moreover, children living in urban poor households tend to be significantly more overweight than in rural areas, and girls and women urban residents are more likely to be exposed to psychological and sexual intimate partner violence.³

The pandemic also affected transport behaviour and demand; cities have experienced declines in public transport ridership and increased personal vehicle ownership.⁴ As more women depend on public transport to access jobs and services such as childcare, limited public transport affects women more than men.⁵ In fact, the COVID-19 pandemic has disproportionately affected women worldwide economically and socially. Most healthcare and essential workers are women, and teleworking is not an option. Pre-existing inequality has also exacerbated the imbalance. In addition to facing a higher burden of unpaid care and housework than men, women have seen their total workload increase due to a reduced care supply.⁶ Because of workforce gender inequality and inadequate support, women transport workers also face a higher risk of coronavirus infection.⁷

The pandemic has tested urban resilience and exposed the fragility of urban systems, reversing decades of progress on poverty, health care, and education. It has also exposed the universal inadequacy of accessibility in urban environments: from public transportation to healthcare facilities. Moreover, it has created even more challenges for persons with disabilities and other vulnerable groups to access vaccines, services, and additional support needed during the crisis.⁸ As countries and cities across Asia and the Pacific struggle to recover from the socioeconomic crisis resulting from the pandemic, the climate crisis continues to ravage the region's cities. Additionally, geopolitical and internal humanitarian crises drive the growing food and energy crisis, undermining the prospects for a sustainable recovery and, in turn, negatively affecting the achievement of SDG 11.

A. AREAS WHERE PROGRESS IS BEING MADE

11.1.1 URBAN SLUM POPULATION

This specific indicator can be seen as a continuation of the Millennium Development Goals (MDGs) target 7D on improving the living condition of 100 million slum dwellers by 2020. While the proportion of people living in slums has decreased by nearly three per cent for the 2016–2020 period, 53 per cent of the urban population in the region's

least developed countries live in slums.⁹ In terms of magnitude, the number continues to rise. Nearly 600 million slum dwellers live in Southeast and South Asia, hosting almost 60 per cent of the global informal settlements.¹⁰

Collaboration between neighbourhood-based housing and service delivery initiatives has resulted in incremental informal settlement upgrades in many Asia-Pacific cities. For example, the Baan Mankong in Thailand and the Asian Coalition for Community Action (ACCA) regional programme leveraged the transformative agency of grassroots slum dweller associations and women's savings groups to improve the quality of low-income housing in slums.¹¹ Many interventions regularized neighbourhoods by providing security of tenure in situ, upgrading existing housing, and providing essential basic services. These measures improved the quality of life in slum neighbourhoods and put residents on a path toward incremental improvement. Collaborative, incremental upgrading has resulted in fewer forced evictions and resettlements, health and well-being improvements, and positive recognition of the informal economy contributions within cities and their peripheries. Paradoxically, gentrification can occur when improvements to centrally located land and communities arise. On the other hand, if investments in slums are piecemeal or insufficient, and informality persists, slums become spatial 'ghettos' within cities.¹²

The City of Surabaya, Indonesia, introduced a 10-year strategy of greening slum neighbourhoods. The strategy was based on consolidating a 30-year compact between city leaders to maintain a low-income workforce within the city rather than relying on low-income casual workers from outside the city. The city government decided to postpone highway schemes and refused to increase the amount of minivan transport through the city-region to increase public transport and walkability within the city. While showing improvement, strategies that selectively reduce capital investment are easily contested politically. Integrated planning requires national and subnational institutions to embed and practice transparency, public dialogue and, most importantly, implement strong territorial development frameworks. Surabaya City is a good example of engaging communities in city governance to implement inclusive and green territorial development planning.¹³

11.2.P1 ROAD TRAFFIC DEATHS

In the Asia-Pacific region, road crashes are the seventh leading cause of fatality in lowincome countries and the tenth in middle-income countries.¹⁴ As a proxy to indicator

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12.2.1—convenient access to public transport by sex, age, and persons with disabilities—where no national data is currently available, road traffic deaths become a complementary indicator. Over the first Decade of Action for Road Safety 2011–2020, high-income countries improved their road safety performance significantly, while middle-income countries mostly performed worse, and low-income countries experienced significant increases in road crash deaths. Low- and middle-income Asia-Pacific countries, specifically, incurred an average loss of 4.7 per cent of GDP each year from crash deaths and injuries.¹⁵ However, in recent years, between 2016 and 2019, road traffic deaths have reduced by 12 per cent in the region.¹⁶ Despite progress, this is still equivalent to one road traffic death per 44 seconds.¹⁷

The United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) 's analysed the 2016 data published in the *Global Status Report on* Road Safety 2018. This analysis indicated that motorized two- and three-wheelers comprise 39 per cent of all road crashes in the region and 62 per cent in South-East Asia.¹⁸ Meanwhile, in East and Northeast Asia, as well as the North and Central Asia subregions, pedestrians comprise 37 and 30 per cent of all road fatalities, respectively.¹⁹ Inadequate facilities and high-risk locations for vulnerable road users result from improper land use planning at many locations. Analysis of data provided by the World Health Organization (WHO) for 2019 indicated that 97 per cent of road fatalities in the region occur in middle-income countries where 94 per cent population of the region lives.²⁰ This shows a need to emphasize improving road safety in middleincome countries. While there were some slight improvements in the region from 2016 to 2019, the goal of reducing road traffic fatalities and injuries by at least 50 per cent between 2021 and 2030-as proclaimed by the General Assembly in 2020 as the Second Decade of Action for Road Safety-remains ambitious and requires interventions at the national, regional and global level.²¹

ESCAP has since developed a *Regional Plan of Action for Asia and the Pacific for the Second Decade of Action for Road Safety 2021–2030*, which considers the safety of motorized two- and three-wheelers as well as climate conditions in the region. The development and endorsement of this Regional Plan of Action are included in the *Regional Action Programme for Sustainable Transport Development in Asia and the Pacific 2022–2026*, adopted by the Fourth Ministerial Conference on Transport in 2021.

11B.1 SCORE OF ADOPTION AND IMPLEMENTATION OF NATIONAL DRR STRATEGIES

The level or score of adoption and implementation of national disaster risk reduction (DRR) strategies in line with the Sendai Framework has been a major achievement at the national level, exceeding the 2022 target. Currently, the region scores an average of 0.78, double the 2015 baseline score and a 10 per cent increase from the previous period.²² By 2020, over 30 countries in the region—nearly 80 per cent of ESCAP member states—have adopted national DRR strategies in line with the Sendai Framework.²³ In addition, some member states have also successfully integrated gender-responsive and inclusive strategies, namely for People with Disabilities, as a good practice.

As of March 2021, almost 90 per cent of member states have reported some data as part of the Sendai Framework monitoring.²⁴ Three dimensions of disaster risk addressed by the Framework include exposure to hazards, vulnerability and capacity, and hazard characteristics. Adopting these national frameworks is expected to reduce the likelihood of creating new risks, reduce existing risks and increase resilience.²⁵ However, tracking the implementation and impacts of the adopted strategies remains challenging. Additionally, while the commitment from countries scores higher than the achieved target, adapting and mitigating regional disasters at the city level remains a pertinent challenge.

11B.2 PROPORTION OF LOCAL GOVERNMENTS THAT ADOPT AND IMPLEMENT LOCAL DRR STRATEGIES

As of 2020, slightly over 30,000 local governments in the region have adopted and implemented local DRR strategies in line with the national strategies mentioned in the previous section.²⁶ This number represents approximately 60 per cent of local DRR adoption and implementation plans.²⁷

In the urban context, one initiative that has progressed rapidly over the past two years is the Making Cities Resilient 2030 (MCR2030).²⁸ More than 500 cities in Asia and the Pacific, representing nearly 200 million people, have committed to reducing local disaster/climate risk and building resilience.²⁹ Commitments include raising awareness on disaster resilience, implementing disaster risk reduction, climate change adaptation, and resilience plans, as well as improving cities' understanding of localized and systemic risks in partnership with national governments and

stakeholders, including regional development partners, private sector, academia, nongovernmental organizations (NGOs), civil society organizations (CSOs) and grassroots organizations.³⁰ Progress to date shows that slightly over 34 per cent of committed cities in the region are either in the early stages of implementation or already working towards mainstreaming the DRR/resilience strategy and activities across its governments' structure. Half are in the early stage of their resilience roadmap, raising awareness of resilience building.³¹

11.6.2 URBAN PARTICULATE MATTER

Challenges to addressing air pollution are further exacerbated by its transboundary nature, where assigning blame is often a complicating factor. Regarding Asia-Pacific, data on urban $PM_{2.5}$ is available for almost 50 countries, indicating a widespread availability of tools sufficiently sensitive to measure and report air quality. The region's annual mean concentration of $PM_{2.5}$ in urban areas was 39.3 µg/m³ in 2019, higher than the WHO standard (interim target 1) of 35 µg/m³.³² However, this was a seven-point improvement from 2015 and four points better than the previous year.³³ The Pacific subregion urban areas had the best annual mean concentration of $PM_{2.5}$ of 9.2 µg/m³, with the best performance in Palau at 7.7 µg/m³ and the worst in the South and Southwest Asia subregion at 58.3 µg/m³, led by urban areas in Afghanistan at 80.3 µg/m^{3.34}

Decoupling air pollution from urban energy, construction, and transport systems and building rural-urban cooperation to address agricultural burning have been key to controlling emissions and improving air quality.

B. AREAS REQUIRING ATTENTION AND ASSOCIATED KEY CHALLENGES

11.5.1 DEATHS/MISSING/AFFECTED BY DISASTERS

Over the past 50 years, natural hazards in Asia and the Pacific have affected 6.9 billion people and killed more than 2 million, almost all victims of water-related disasters such as floods, droughts, and storms. While there has been a substantial fall in the average loss of life per year—for instance, 2019 and 2020 saw deaths fall to around 6,200

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people—the number of people directly affected by natural disasters has increased by nearly ten per cent compared to the baseline decade 2005–2012.³⁵

According to a report released in 2022 by the Asian Development Bank (ADB) and the Internal Displacement Monitoring Centre (IDMC), people in Asia and the Pacific were displaced more than 225 million times due to disasters triggered by natural hazards in the past decade.³⁶ The region accounts for more than 75 per cent of the total displaced people globally.³⁷ East and Southeast Asia had the highest number of disaster displacements, making up nearly 70 per cent of the region's total.³⁸ Following closely is South Asia, at 27 per cent.³⁹ Meanwhile, the Pacific has the greatest displacement risk relative to its population size.

Following many of these disasters, massive rehabilitation programmes were initiated and completed, with housing at times reconstructed in the same place or nearby. However, some families and communities needed to be relocated from risk-prone areas. While data about Asia-Pacific cities are not readily available, urban areas are perhaps more vulnerable than other areas to slow-onset disasters such as climate change.

Port Moresby, Papua New Guinea's capital and largest city, has been subject to internal displacement for some time. In 2022, IDMC conducted a study in which they interviewed 150 people who left their homes because of sea level rise or related disasters, including coastal erosion, inundation, and salination.⁴⁰ According to the survey, people near Port Moresby began moving in the early 2000s from areas that have since been claimed by the sea, with a significant increase starting in 2016.⁴¹ However, given the relatively slow-paced nature of the displacement, affected people may not have linked it to climate change. Some instead attributed their need to move to the gradual reduction of available habitable land and the resulting overcrowding.

11.5.2 DISASTER-RELATED ECONOMIC LOSS AND AFFECTED INFRASTRUCTURE AND SERVICES

Asia and the Pacific incur an estimated US\$780 billion in annual economic losses caused by disasters, accounting for 2.5 per cent of the region's GDP.⁴² Relative to country GDPs, economic losses due to disaster in the region are higher than in the rest of the world, and the gap has been widening.⁴³ Moreover, under both a moderate and a worst-case climate change scenario, the impact of extreme events on infrastructure

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will increase. For example, almost 33 per cent of Bangladesh's transportation infrastructure will be at very high risk from multiple hazards under the worst-case climate change scenario of RCP 8.5.⁴⁴

Unfortunately, the cost of damage to housing and infrastructure is not the only negative impact; many financial repercussions have yet to be adequately assessed. Land and property loss may compromise a person's ability to earn a living and may, at a larger scale, hinder the development of societies. Moreover, Asia-Pacific's high reliance on emergency response is unsustainable; the region requires immediate and committed investment in disaster prevention, which will also bring economic benefits.⁴⁵ According to the World Bank and the Global Facility for Disaster Reduction and Recovery (GFDRR), for each US\$1 invested in more resilient infrastructure in low-and middle-income countries, there would be US\$4.2 trillion with US\$4 in on average of investing benefit.⁴⁶

City-level implementation is essential for meeting most international commitments, including SDG 11. However, in most cases, cities are not fully engaged in national and international agenda-setting, decision-making, funding options and implementation strategies. This is a missed opportunity, as including cities in these processes enables and empowers them, providing additional capacity for implementation at the local level.⁴⁷

C. AVAILABILITY OF DATA

The lack of reliable data for following up and reviewing SDG 11 has been widely highlighted (Figure 2). Urban data collection and reporting still do not meet the needs of urban planners and city managers. Where data exists, it is often siloed and managed by different municipal departments or tiers of government. Furthermore, the data does not fully capture people's needs in informal settlements and slums. This 'data deficit' affects how cities plan for development and understand urban and complex social change.

Figure 2: Availability of SDG11 indicators in Asia-Pacific.



No Data Insufficient (one data point) Sufficient (two or more data points)

The pandemic did, however, open spaces for new and creative forms of urban data collection. Collaborative partnerships between cities and civil society, multilateral organizations, developers and others allowed new technologies to be used better: to track and monitor COVID-19 cases and municipal government readiness to deliver various services, and map existing facilities and infrastructure, including in informal settlements.

Unlike other goals, SDG 11 monitoring and implementation presents unique challenges. For instance, some indicators must be collected at the city level while the reporting is done at the national level. To enable the production of comparable city/urban data against the SDG 11 indicators, as well as indicators from other goals that require urban/rural definitions, the United Nations Statistical Commission endorsed the Degree of Urbanisation (DEGURBA) in 2020 and recommended its adoption in measuring the SDGs.⁴⁸

Additionally, countries with many cities/urban areas requiring data collection face challenges in measuring performance for each city and creating representative national urban aggregates against the SDG 11 indicators, where only a few cities have data.

Many national governments and statistical offices have concluded that it is not possible, and perhaps unnecessary, to study each city in the country to monitor national trends on SDGs urban indicators, especially in countries with many cities/

urban centres. The United Nations Human Settlements Programme (UN-Habitat) developed the 'national sample of cities' approach to resolve these challenges. From a complete list of their urban centres/cities, It allows countries to derive a manageable but representative sample of cities that reflects their entire urban systems, and from which they can produce data and compute weighted national urban aggregates against the relevant SDG 11 indicators. This approach considers sub-regional and city-specific characteristics and variances, e.g., physical location, city size, and economic value, and ensures that data produced for the indicators is not biased only to the large cities where information is most available. In addition to helping capture better urban performance based on a diversity of city/urban area types, the national sample of cities also facilitates an economical way of targeting and setting up appropriate monitoring and reporting systems for cities in countries where resources are significantly constrained.⁴⁹

III. HUMAN RIGHTS AND GENDER EQUALTIY CONSIDERATIONS

SDG 11 calls for 'inclusive cities' where human rights—equal rights and opportunities and fundamental freedoms—are aspired to in urban areas. This includes setting minimum living standards of freedom, equality, and dignity in the context of urban development.⁵⁰

The UN Special Rapporteur on the right to adequate housing has observed that trends towards decentralization and greater responsibilities for local and subnational governments have meant that national governments' obligations under international human rights law rely increasingly on implementation by local and subnational governments. Accordingly, the Rapporteur recommends that national governments encourage the participation of local and subnational governments in all relevant international human rights mechanisms and communicate recommendations emanating from international human rights mechanisms with requests for responses and follow-up action. Recommendations also include ensuring responsibilities of all levels of government are clearly delineated and jointly coordinated with ongoing independent review and oversight to ensure that jurisdictional overlap does not deny those needing access to necessary services or housing. Launched as part of activities of the Committee on Social Inclusion, Participatory Democracy and Human Rights (UCLG-CISDPDH), the global campaign "10, 100, 1000 Human Rights Cities and Territories by 2030" brings together local and regional governments wishing to advance human rights through providing and improving access to education, housing, health, food, and security, as well as promoting transformation and empowerment against inequalities, discrimination or climate change. Started in July 2022, the initiative calls for 100 pioneer cities and territories to commit to human rights through a unique global campaign.⁵¹

Minecraft has integrated urban public space planning into a game to engage young people. It allows users to visualize a three-dimensional environment in a format designed for rapid iteration and idea-sharing to design and plan rebuilds of the city. Once the digital version visual is completed, the design and plan are used by the Block By Block Foundation to help communities rebuild their local areas. The methodology has helped communities in Viet Nam, India, Indonesia and Bangladesh to actively engage neighbourhood residents who typically do not have a voice in public space planning.⁵²

At the same time, making cities age-friendly is important to ensure that older persons are not left behind in the urban environment. WHO works with member states on various initiatives to create age-friendly cities and communities.⁵³ For example, the Malaysian government launched an age-friendly city project in Taiping in 2020. This project aims to stimulate and guide local action to make urban settings and services more age-friendly by establishing a network of stakeholders in focus areas, sharing knowledge, and building government representatives' capacity to practice participatory planning, including gender and disability perspectives.⁵⁴

Gender inequalities in cities arise from the multiple forms of discrimination women and girls face every day, including access to education and rights to housing and asset ownership, which puts them at an increased risk of poverty and limits their negotiating power. They are also most negatively affected by the proliferation of under-resourced and often spatially segregated urban areas.⁵⁵ Due to these challenges, urban poverty characterized by informal settlements and inadequate access to shelter and services —also increasingly impacts women and girls.

Researchers in this field point to gender-specific injustices that amplify the burdens of reproductive, productive, and community work women in urban and slum settings face. An analysis of data from 59 low- and middle-income countries in Latin America, the

Caribbean, Central and Southern Asia, and sub-Saharan Africa found that women and their families bear the brunt of growing income inequality and failures to plan for and respond to rapid urbanization adequately.¹ The data further showed that in 80 per cent of the countries analysed, women are overrepresented in urban slums among those aged 15 to 49.⁵⁶ Yet, gender profiles of urban slum residents are scarce. Moreover, as the impacts of climate change worsen or health crises such as COVID-19 unfold, these are likely to increase the difficulty and time needed to deal with multiple demands, which include a wide range of primarily unpaid caring roles typically performed by women and young girls.

To tackle gender inequality, urban practitioners and decision makers need to consider the important role of inclusive planning processes and basic gender-responsive infrastructure and service provision in reducing gender disadvantages. They must also embrace the roles that women and girls can play in finding solutions that meet their specific, changing needs and aspirations in and around cities.⁵⁷

An innovative example from Delhi was the launch of mobile applications by Safetipin aimed at empowering women to make safe and informed decisions about their mobility. The mobile applications collect data through crowdsourcing and other methods to generate a safety scorecard.⁵⁸ Users can report problems such as poor or no lighting, a broken or blocked footpath, or open wiring, alerting other users to possible safety issues in the city. The information is then fed to the public service providers, who are mandated to address the relevant problems to improve the area's safety.⁵⁹ Community Resilience Funds (CRF), introduced by the Huairou Commission, is a mechanism designed and operated by its member women-led grassroots organizations to provide accessible and flexible resources to demonstrate, test, learn, innovate and build public partnerships to scale up community resilience. It is also meant to build financial management capacities and systems and strengthen women's leadership roles in their communities. Grassroots women's groups form task forces in partnership with local governments to provide emergency responses to communities during disasters by identifying vulnerable households and linking them with relevant government social protection programmes and assistance schemes. For example, in Nepal, the Community Women Forum (a grassroots women-led

¹ UN Women calculations based on microdata from Demographic and Health Surveys for the years of 2007–2017 for 59 developing countries. Only regions with substantial country coverage (eight or more countries) are shown.

cooperative) and Lumanti Support Group for Shelter, in partnership with the local government and UN-Habitat, responded to the pandemic by mapping affected communities and identifying beneficiaries in need of support.

Beyond these efforts, women's lack of access to safe, affordable housing in slum settings and essential services such as clean water and sanitation must be addressed.⁶⁰ Failing to do so exposes them disproportionately to forced eviction and relocations as well as to violence and health hazards.

IV. PROMISING INNOVATIONS AND PRACTICES

RELATED TO INDICATOR 11.1.1 ON URBAN SLUM POPULATION

Know Your City (KYC), a global campaign of Slum Dwellers International (SDI), United Cities and Local Governments (UCLG) and Cities Alliance launched in 2014, has profiled 7,712 slums in 224 cities in Africa, Asia and Latin America to date.⁶¹ The campaign empowers slum dwellers to collect city-wide data and information on informal settlements.

Led by SDI, activities such as the enumeration of household-to-household socioeconomic surveys and physical mapping are conducted to identify developmental priorities, organize leadership, expose and mediate grievances between segments of the community and find ways to cohere around future planning. By doing so, SDI provides an on-the-ground data-based platform for engaging with governments and other stakeholders involved in planning and setting policy for development in urban centres. When slum dwellers actively share data with government, new relationships are forged, positioning the poor as integral role players in the decisions that affect their lives within the city.⁶² Through this work, alternative systems of knowledge that are owned by the slum communities can be shared and updated regularly. These systems have become the basis for social and political organization for an informed and united urban poor, increasing their collective bargaining power to negotiate more and better investments in affordable housing and basic services.⁶³

RELATED TO INDICATOR 11.2.P1 ON ROAD TRAFFIC DEATHS

Evidence from around the world shows a strong correlation between speed and road safety: every one per cent decrease in speed delivers a four per cent decrease in deaths, around a three per cent decrease in serious injuries, and a decrease in all crashes.⁶⁴ Asia-Pacific traffic areas will benefit profoundly if they implement the 30 kmph speed limits in pedestrian and bicycle areas, rely on good engineering to manage speeding, and improve the management of speeding on rural roads and highways.⁶⁵ Lower driving speeds will also benefit the quality of life, improve air quality and reduce fuel consumption and noise pollution in urban areas.

According to the Shanghai Public Security Bureau, digital tools have played a significant role in the city's management and supervision of motor vehicles on roads. Shanghai has around 8 million registered motor vehicles, including private cars, commercial trucks and motorbikes, with about 5 million of them in use each day.⁶⁶ Around 40,000 traffic violations are caught in Shanghai daily, with high contribution from the electronic police, an automatic detection and measurement technology used to identify traffic violations or accidents. In 2019, Shanghai had around 38 types of electronic police in use.⁶⁷ Additionally, various programmes, including "analysis and improvement of accident-prone roads" and "behavioural-analysis-based commercial drive safety education", have effectively reduced road traffic casualty rates.⁶⁸

RELATED TO INDICATOR 11.6.2 ON URBAN PARTICULATE MATTER

In 2015, a platform for policymakers and stakeholders to share knowledge, tools and innovative solutions to tackle air pollution in the region was launched. The Asia Pacific Clean Air Partnership (APCAP) brings together countries, city networks and initiatives that focus on clean air in the region.

In 2018, the APCAP produced the *Air Pollution in Asia and the Pacific: Science-based Solutions* report that identified 25 clean air measures to positively impact human health, crop yields, climate change and socioeconomic development as well as contributing to achieving the SDGs.⁶⁹ The Report suggested that by implementing these 25 measures, 1 billion people, or 22 per cent of the region's population, could breathe cleaner air by 2030, achieving air quality in line with the WHO Guideline of 10 μ g/m^{3.70} If the region reaches this, it will reduce global warming by a third of a degree Celsius by 2050.⁷¹

To accelerate progress on delivering SDG 11 and reverse the current regression on some targets in an integrated fashion with all SDGs, the following actions are recommended for priority consideration:⁷²

CITY CLIMATE ACTION AND DISASTER RISK MANAGEMENT

Among other actions, cities are encouraged to adopt an Ecosystems Based Approach (EbA) approach to address the impacts of climate change and disasters in urban areas. EbA can enhance resilience by restoring and rehabilitating urban ecosystems, for example, by reducing urban heat island (UHI) effects and increasing the buffer capabilities for flooding and reducing pollution. Equally important, EbA can become an instrument of economic development through job creation and redistributive justice. It can also provide cities with significant co-benefits such as food and water security and greater cohesion and empowerment at the community level.

Asia-Pacific accounts for nearly one-third of weather, climate and water-related disasters reported globally and accounts for nearly half of deaths.⁷³ To respond to multiple converging hazards facing Asia-Pacific cities, urban planners should invest more in comprehensive risk assessments by identifying and stratifying vulnerable populations—including their varying needs and capacities—to take targeted and anticipatory actions that are gender-responsive and inclusive, notably for persons with disabilities, elderly populations and children. Furthermore, COVID-19 demonstrated the urgent need to merge disaster risk reduction strategies into health preparedness systems. Lastly, city governments will need to boost resilience through targeted, forward-looking and impact-based fiscal spending that also accounts for health-related hazards, where the costs should be sourced collaboratively through public-private partnerships.⁷⁴

URBAN GOVERNANCE AND PARTNERSHIPS

Systemic, transformative action requires cross-sectoral integration and coordination between jurisdictions within urban and peri-urban regions and between local, subnational and national authorities with informed communities.⁷⁵

Human rights and gender equality should not be considered sectoral considerations to be addressed as an afterthought. Instead, they should be sought across all local

environmental action and programming, and built into governance, collaboration and implementation approaches and mechanisms. An example of this is using genderresponsive participatory budgeting as a governance tool to promote gender equality and empowerment of women. Social protection can also help build household resilience to economic or climate-related disruptions or life contingencies. With increasing urbanization, further efforts are needed to ensure access and coverage of informal communities in urban settings.

Through building reciprocal rural-urban linkages, a range of flows and interactions between urban and rural areas can serve as entry points to develop interventions with reciprocal benefits. These include the two-way movement of people, capital, information, nutrients, ecosystem services and more.⁷⁶

URBAN DIGITAL TRANSFORMATION AND DATA-DRIVEN DECISION MAKING

Investing in frontier technologies and innovating local exigencies should be combined with enhanced social organization and mobilization adapted to Asia-Pacific's urban areas, especially slums, where advanced modelling techniques for risk assessments may be difficult to apply.⁷⁷ Furthermore, addressing the digital divide will challenge existing power dynamics that drive current inequities and inequalities is key to inclusive digital transformation.⁷⁸

In response to the challenges of lockdowns and limited mobility that occurred at the peak of the COVID-19 pandemic, many grassroots women's organizations invested in learning and using digital tools and technologies to access medical services in cities in Nepal as well as to sell and barter food in cities in the Philippines.⁷⁹ The increased use of digital platforms helped communities stay connected, reaffirm their solidarity, coordinate activities, promote information sharing and learning and engage government.

Incorporating gender-responsive and spatially aware insights from data, communitybased approaches and scientific expertise into decision-making processes is one of the crucial pathways to quantify progress to achieve sustainable urban development. Many of the insights needed to guide long-range planning and transformational pathways require expertise that often does not sit within local governments. Expert and community guidance is often needed, for instance, to gather, process and interpret

the data required for material flow analyses, greenhouse gas emissions and biodiversity baselines and resilience assessments, among others.⁸⁰

The application of technology in urban transport, coupled with greater energy efficiency and the adoption of electric mobility, will also lead to greater sustainability. Smart transport technologies and innovations, including passenger information systems, automatic toll payment and congestion charging, already exist in many countries in Asia and the Pacific as they shift their traditional transport technologies to systems with greater automation.⁸¹

URBAN AND TERRITORIAL PLANNING

Planning is a public good which requires strong local leadership and long-term vision to address challenges cities face from continued sprawl. Planning processes need to incorporate the perspectives of diverse stakeholders to ensure that plans are responsive to the differentiated needs of urban populations. In addition, different scales of planning need to work in tandem. Planning across the urban-rural continuum, which integrates nature-based solutions and disaster reduction strategies, ensures a more balanced growth outcome that increases sustainability and resilience.

Territorial planning addresses the gap between national-level development policies and local implementation. The successful application of regional planning tools and methodologies in various contexts provides a framework for decision making across different levels of government. Similarly, transport and spatial planning at the city level need to be better integrated to ensure sustainable low, carbon multi-modal mobility through promising concepts borne out of the pandemic, such as the 15-minute city concept.⁸² Integrated land use and transport planning, including mixed land use patterns, is, therefore, key to sustainable urban mobility through reducing travel demand and distance and shifting to public transport and non-motorized transport modes.⁸³

The COVID-19 pandemic has enlivened the agenda for better, more inclusive public space planning. The need for public space to incorporate blue and green networks as structuring elements in urban and territorial planning continues to be important. For example, there is a growing trend to incorporate green space targets as part of planning requirements in Turkey through the Milit Gardens Program and in Indonesia through their green cities programme. Providing quality public space as part of city-wide networks is critical for social integration and inclusion.

Planning lays the foundation for more equitable, resilient, inclusive and environmentally sustainable urban infrastructure. Urban infrastructure is long-lasting and can, therefore, "lock-in" and shape resource needs and service inequities for decades.⁸⁴

VI. CREDITS AND REFERENCES

ACKNOWLEDGEMENTS

The profile for SDG 11 was developed by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) and the United Nations Human Settlements Programme (UN-Habitat) with valuable inputs received from the United Nations Development Programme (UNDP), United Nations Office for Disaster Risk Reduction (UNDRR), United Nations Environment Programme (UNEP), United Nations Human Rights (UNOHCHR), United Nations Office for Project Services (UNOPS) and the United Nations Entity for Gender Equality and the Empowerment of Women (UN Women).

We are grateful for the substantive review of the SDG11 Goal Profile made from its' Reference Group comprising of United Cities and Local Governments Asia and the Pacific (UCLG ASPAC), Asia-Pacific Local Government Coordinating Body (APLG), the Huairou Commission, the Asian Coalition for Housing Rights (ACHR), and the Lumanti Support Group for Shelter.

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