



**ACCELERATING PROGRESS IN SDG-11  
(SUSTAINABLE CITIES & COMMUNITIES)  
IN SOUTH AND SOUTH-WEST ASIA SUBREGION**

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## Foreword



The Development Papers Series of the Economic and Social Commission for Asia and the Pacific, Subregional Office for South and South-West Asia (ESCAP-SSWA) promotes and disseminates policy-relevant research on the development challenges facing South and South-West Asia (SSWA). It features policy research conducted at ESCAP-SSWA as well as by outside experts from within the subregion and beyond. The objective is to foster an informed debate on development policy.

This paper is part of a series of thematic studies by the ESCAP South and South-West Asia office, reviewing the status, progress, and challenges of achieving SDGs in the subregion. The earlier version of the paper was presented at the Sixth SSWA SDG Forum in Islamabad, Pakistan, 5-7 December 2022. This study delves into a part of the Sustainable Development Goals as a beacon of hope and progress for nations worldwide. However, for some regions, the journey towards achieving these goals remains fraught with challenges and setbacks.

The South and South-West Asia (SSWA) subregion is one such area, which, despite its immense potential grapples with multifaceted issues that hinder its progress toward sustainable development. While all 17 SDGs are important, SDG-11 focuses on Sustainable Cities and Communities, emerges as a critical development priority given the rapid urbanization taking place in this subregion. From the unchecked growth of informal settlements to issues of pollution and poor sanitation, the array of challenges is vast. These impact the immediate objective of fostering sustainable cities and have overarching consequences on public health, environmental sustainability, and the overall quality of life.

While each country in SSWA has its unique challenges and strengths, subregional and regional cooperation can strengthen the positive impacts of their individual efforts towards achieving SDG 11. Collaborative action can be instrumental in building a more sustainable, inclusive, and prosperous urban future for the region. Also, by sharing knowledge and best practices, formulating robust policies, and embracing innovative strategies like the circular economy and smart cities, the subregion can still reposition itself on the path to achieving SDG-11. Notably, the positive ripple effects of addressing these urban challenges will invariably bolster progress in other interconnected SDGs, including gender equality, clean water and sanitation, decent work and economic growth, and climate action.

As we delve into this paper, it's an invitation to stakeholders, policymakers, and readers to not only understand the gravity of the situation but also to envision a future where cities in the SSWA subregion are sustainable, resilient, and inclusive, serving as pillars of growth for their nations.

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## **Accelerating Progress in SDG-11 (Sustainable Cities and Communities) in South and South-West Asia Region**

George Cheriyan and Simi TB<sup>1</sup>

### **Abstract**

The South and South-West Asia (SSWA) subregion faces significant challenges in achieving Sustainable Development Goals (SDGs) by 2030. It is far from achieving targets of all 17 goals and thus urgent action is required to be on track for meeting the SDGs. This paper explores the status and progress of SSWA countries in relation to SDG-11 (Sustainable Cities and Communities) as it is still one of the areas where serious challenges remain. Rapid urbanization has not been sustainable due to a growth in informal settlements, lack of adequate basic services, unsustainable transport systems, proper waste management, air and water pollution, and proper sanitation facilities. These constant barriers pose significant risks to public health, environment, and quality of life. The paper suggests that addressing these challenges, forging stronger networks among countries to share knowledge, good practices, and capacity-building, enforcing timely and appropriate policies, developing capacities of critical stakeholders, encouraging circular economy and smart cities, and making cities green, safe, resilient, and inclusive are essential for the region to be back on track in SDG-11. Addressing these issues will also positively impact other SDGs including, but not limited to, SDG-5 (Gender Equality), SDG-6 (Clean Water and Sanitation), SDG-8 (Decent Work and Economic Growth), and SDG-13 (Climate Action).

JEL Codes(s): I32, L91, N15, O20, P18, Q53, R

*Keywords:* SDG progress, South and South-West Asia, SDG-11, sustainable cities, waste management, informal settlements, sustainable transport, pollution

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## 1. Introduction

The South and South-West Asia (SSWA) region is not on track to achieve any of the 17 Sustainable Development Goals (SDGs) by 2030 (ESCAP, 2023a). Recent global challenges like the COVID-19 pandemic and the Ukraine-Russia war have led to growing inflation and economic turmoil, further hindering the capacities of these countries to make significant strides toward achieving SDGs. Growing population, rapid unsustainable urbanization and lack of adequate infrastructure, extreme and uncertain weather events caused by climate change, political instability, poverty and inequality, environmental issues, gender inequality, access to education and healthcare, terrorism and security challenges, economic development, and lack of regional cooperation are consistent challenges facing the region.

SDG-11, Sustainable Cities and Communities, in particular, has been experiencing very slow progress in the subregion and is still one of the development areas where major challenges remain. Despite continuous efforts by many SSWA countries to address the social, economic, political, and environmental problems, the fast-growing population in urban areas comes with issues like growing informal and unhygienic settlements and a lack of adequate basic services in those locations. Other challenges like poor infrastructure, unsafe and unsustainable transport systems, waste mismanagement, extreme air and water pollution, and lack of sanitation facilities are exacerbated by growing unsustainable urbanization and negatively affect the urban population in all countries in the region. These constant barriers significantly hinder progress in SDG-11 and need to be urgently addressed by the SSWA region as a whole.

SDG-11 is directly connected with many other SDGs as it impacts and is impacted by goals including SDG-5 (Gender Equality), SDG-6 (Clean Water and Sanitation), SDG-8 (Decent Work and Economic Growth), and SDG-13 (Climate Action). In this regard, looking at the existing challenges and potential solutions is crucial for the subregion to get back on track to achieving the 2030 agenda.

This paper provides an overview of the status and progress of SSWA countries on SDG-11 and looks at some of the major challenges and gaps that hinder progress on this goal. With some good practices from the region and around the world, the paper aims to provide some recommendations for the sub-region to accelerate its response and actions toward the achievement of the SDG goals. To address persistent challenges that come with rapid urbanization intertwined with above-mentioned factors, the paper recommends several actions such as focusing on building smart cities, safe cities, managing waste and sanitation sustainably, addressing causes of air pollution, and forging regional cooperation mechanisms and alliances to address common challenges.

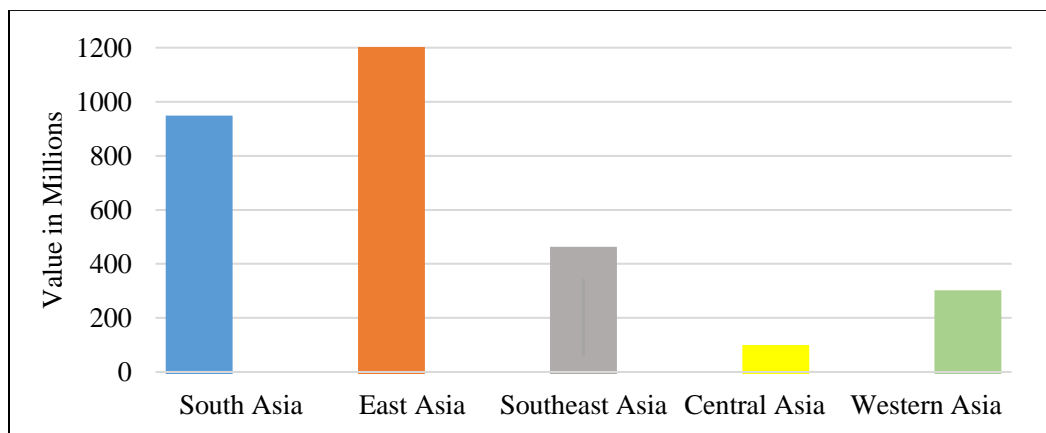
## 2. Background: Economies and Urbanization of SSWA Countries

The eight South Asian countries are home to almost 1.9 billion people or 23 percent of the world population. Türkiye and Iran (Islamic Republic of) contribute an additional 0.17 billion (World Bank, 2021a). Although all SSWA countries share a similar history and cultural characteristics, the differences in population, size of states, geographical and climate stability, and economic and geopolitical strengths have led to varying patterns of economic and social progress in the subregion. Recent global reports show that economic growth in the subregion will be slower than previously projected due to the war in Ukraine and persistent economic challenges (World Bank, 2022).

Currently, about 3.5 – 4 billion people, i.e., over half of the world's population, are living in urban areas, and it is estimated that by 2030, 60 percent of them will be living in cities (OHCHR, n.d.). Based on the current growth trajectory, it is predicted that almost 90 percent of this growth will happen in Asia and Africa. United Nations demographers estimated that in 2019, Asia and the Pacific region's urban population exceeded 2.3 billion, comprising 54 percent of all urbanites on the planet (United Nations, 2019a).

South Asia is experiencing rapid urban growth, and the urban population alone is expected to grow by more than 890 million by 2030 (Figure 1). Figure 2 shows the percentage of the population living in urban areas in the SSWA region. Two South-West Asian countries, Türkiye and Iran (Islamic Republic of), are projected to exceed an urbanization rate of more than 85 percent by 2050. On the other hand, five South Asian countries, India, Maldives, Pakistan, Bangladesh, and Bhutan, will exceed an urbanization rate of 45 percent by 2050 (United Nations, 2018). This growth by Iran (Islamic Republic of) and Türkiye is considerable and exhibits a prevailing gap with other South Asian countries.

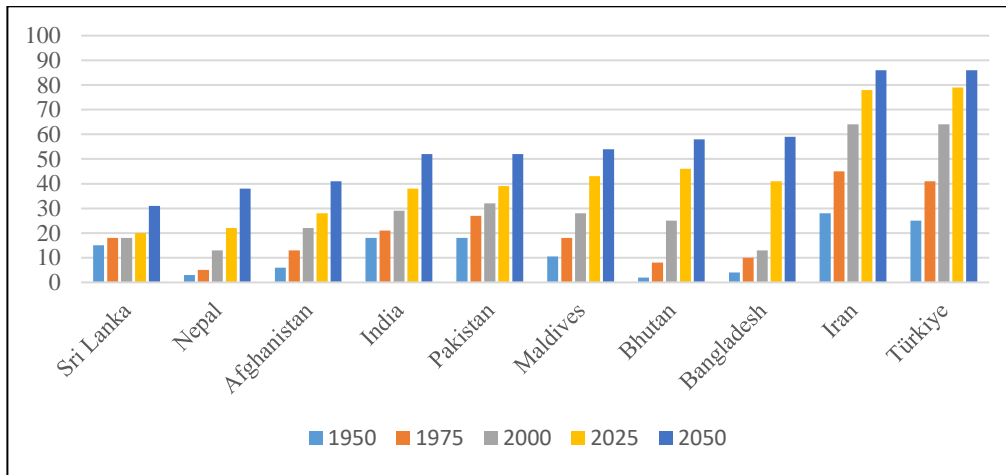
**Figure 1: Projected Urban Population in Asian Sub-regions by 2030**



*Source:* Data from United Nations (2019b)

*Note:* South Asia includes 9 of the 10 SSWA countries, while Türkiye is included in Western Asia.

**Figure 2: Percentage of Urban Population in SSWA Region, 1950-2050**



Source: Data from United Nations, *World Urbanization Prospects 2018: Country Profile* (2018)

Cities are the driving force for economic development for countries, which in turn stimulates urbanization (UN-Habitat, 2011). While urbanization has been an essential part of most nations' development towards a stronger and more stable economy, rapid urbanization is already resulting in a growing number of slum dwellers, inadequate and overburdened housing infrastructure and poor public services like improper waste collection and water and sanitation systems, poor roads and unsustainable transport, worsening air pollution, and unplanned urban sprawl. In 2020, about one in four urban dwellers lived in slums or informal settlements globally. This translates into more than one billion people, with a major portion (359 million) living in Central and Southern Asia (United Nations, 2023).

Such high growth of population combined with an increased number of people living in informal settlements in the region poses challenges in ensuring safe, inclusive, and sustainable cities. It is reported that though cities are powerhouses of economic growth, contributing 80 percent of global GDP, they account for about 75 percent of global carbon emissions (United Nations, 2023) and over 75 percent of resource use (World Economic Forum, 2022). Similarly, with the expansion of urban areas, South Asia's material consumption is expected to grow from 2.7 billion tons in 2010 to about 8.6 billion tons by 2050 (IRP, 2018). Thus, the region's total percentage of urban domestic material consumption change will be 223 percent. Such a rapid rise in material consumption would result in dramatic increases in greenhouse gas emissions, conflicting with the climate goals.

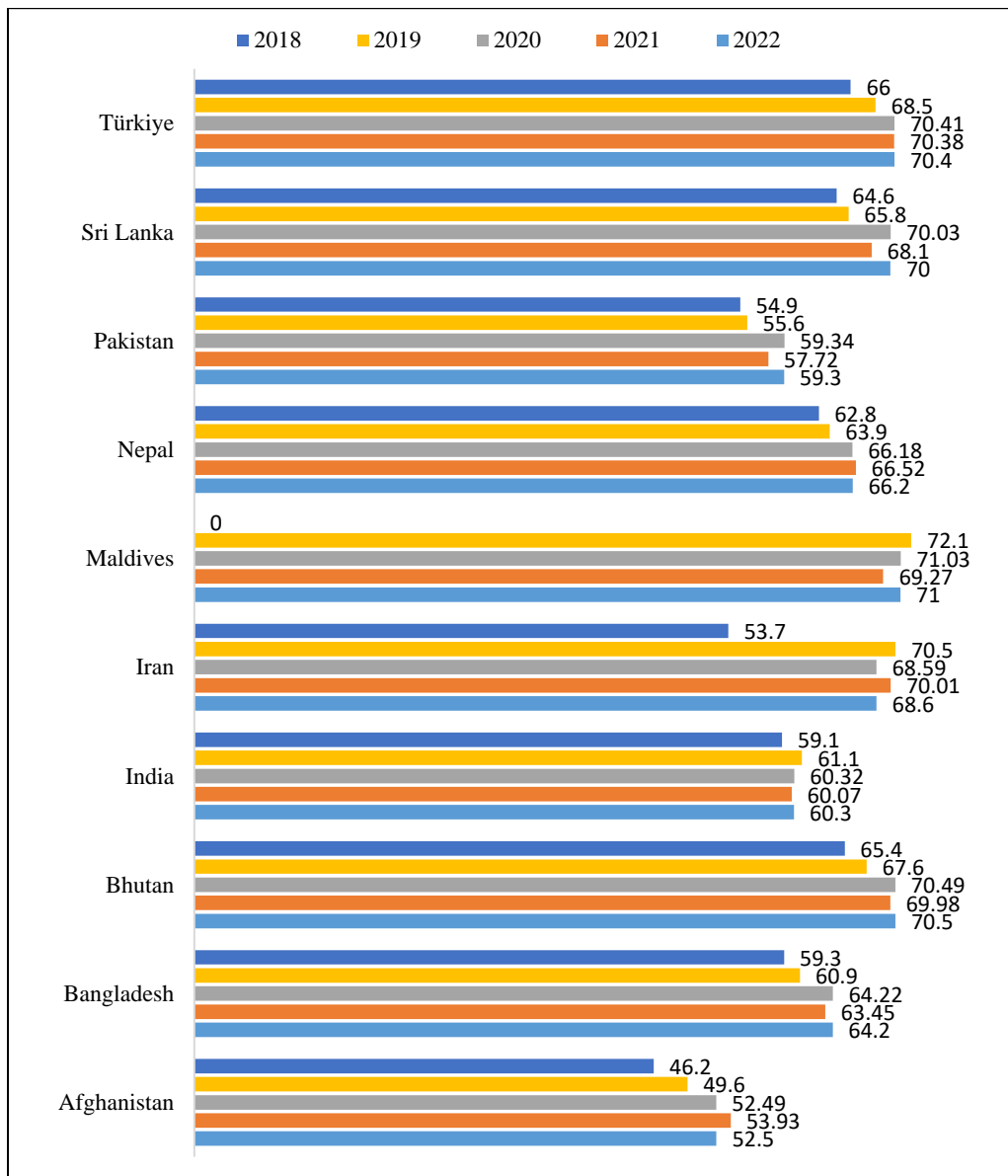
SDG-11 (sustainable cities and communities) urges countries to have a renewed focus on urban governance and make cities and human settlements inclusive, safe, resilient, and sustainable. It aims to renew and plan cities and other human settlements to offer opportunities for all, with access to basic services, energy, housing, transportation, and green public spaces, while improving resource use and reducing environmental impacts.



### 3. SDGs Progress in the SSWA Sub-Region

As the SSWA region is home to more than a quarter of the world population, will comprise almost a billion people in urban areas by 2030 (as discussed above), and holds one-third of the share in global poverty, the world cannot achieve SDGs without the region. However, following the effects of the COVID-19 pandemic that pushed back progress in the SDGs in most countries around the years 2020 and 2021, SSWA countries' SDGs scores have only marginally improved or stagnated since 2018, as shown in Figure 3.

**Figure 3: Annual SDG Scores 2018-2022 for SSWA, by Country**

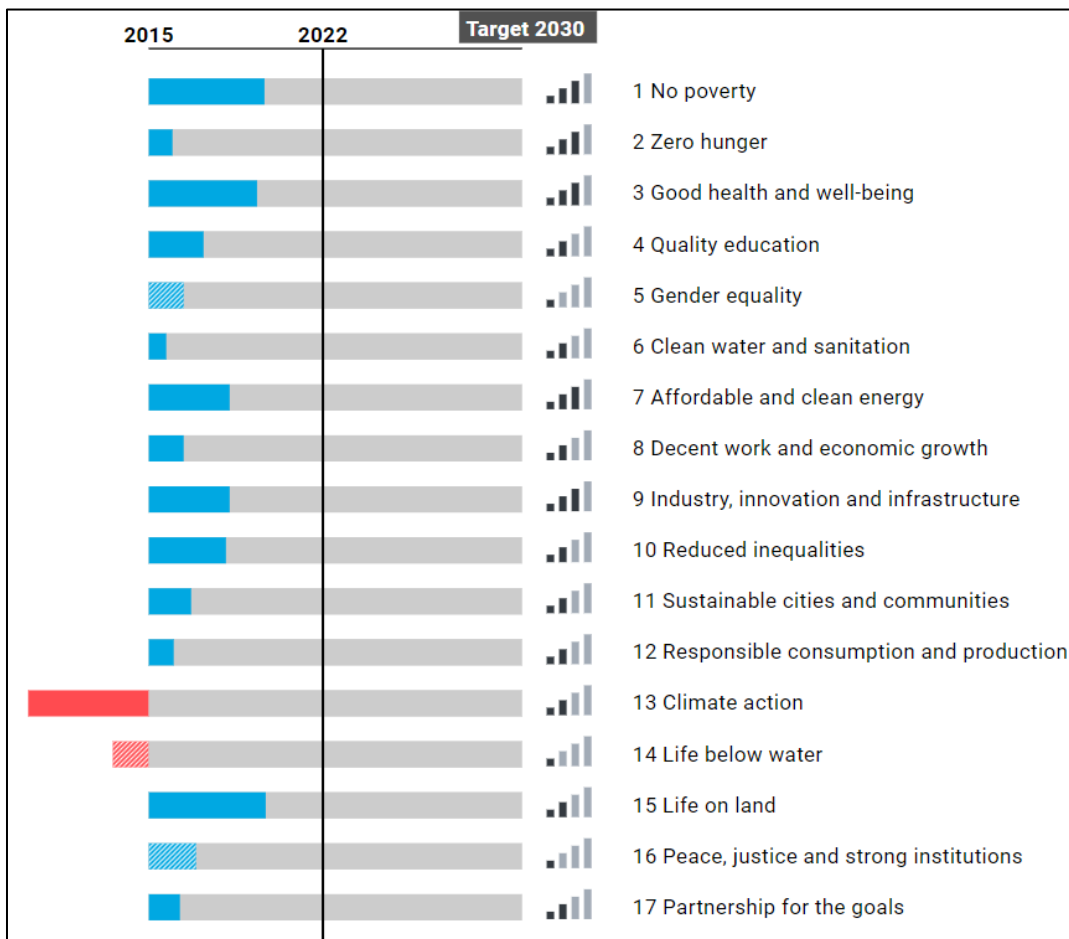


Source: Data from Sachs, et. al., *Sustainable Development Report*, 2018, 2019, 2020, 2021 and 2022.

Nonetheless, 95 percent of confirmed COVID-19 cases were in urban areas as cities became hotspots for COVID-19 cases worldwide (UNCDF, 2020). The socioeconomic consequences of the pandemic and the subsequent energy and food crisis compounded existing urbanization challenges. Cities across the developing and developed world became frontline actors facing multiple interlinked crises, and the city-level response has become critical for building resilience and ensuring the achievement of the SDGs.

Thus, despite showing some stability in SDG performance during the past five years, with the increasing climate crisis, ongoing COVID-19 pandemic, uneven and fragile economy, and additional individual crises, the region remains at the risk of slowing down its performance in achieving some of the SDGs in the coming years if no proper planned and focused interventions are made. As evident from Figure 4 below, the subregion is way behind the target in 2022 in SDG11.

**Figure 4: SDG Progress - South and South-West Asia, as of 2022**



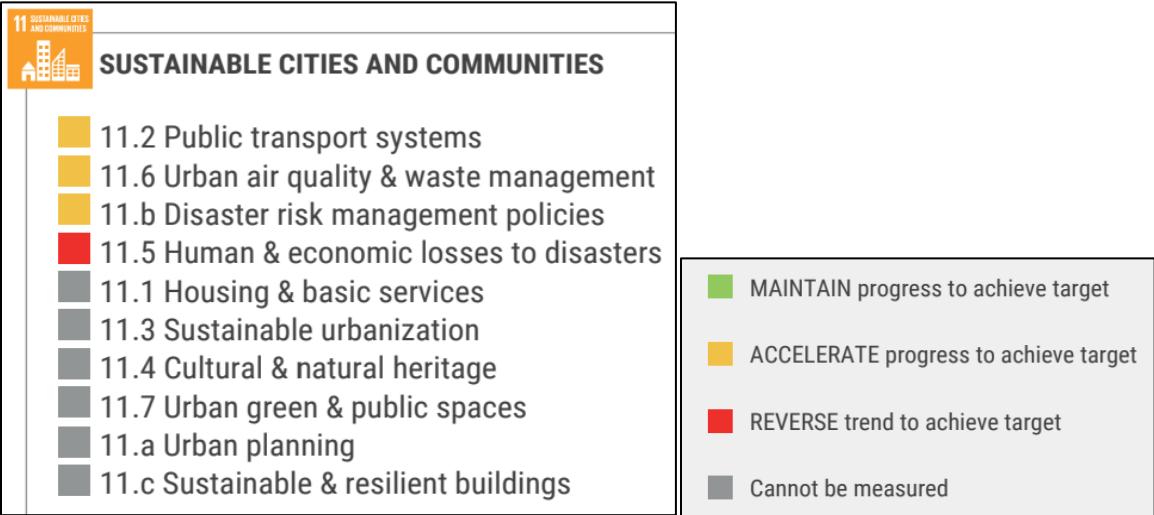
Source: ESCAP, *SDG Progress* (2023b)

### 4. Sustainable Cities & Communities (SDG-11) Progress in the Sub-Region

SDG-11 focuses on making the world's cities and human settlements safe, resilient, inclusive, and sustainable. Considering the growing rate of urbanization in the world and while cities are powerhouses of the economy, urbanization is often followed by issues like increased informal and unsafe settlements, high carbon emissions, pollution, waste mismanagement, and strain on already inadequate basic services.

Targets to support this goal include ensuring access for all to adequate, safe, and affordable housing and basic services, such as water, sanitation, and electricity (Target 11.1). It also focuses on providing sustainable and accessible transport systems for all, including vulnerable groups (Target 11.2). Other targets include enhancing inclusive and sustainable urbanization (Target 11.3), protecting cultural and natural heritage (Target 11.4), reducing adverse impacts of disasters (Target 11.5), reducing adverse environmental impacts of cities (Target 11.6), providing safe and inclusive green spaces for all (Target 11.7), supporting positive environmental links between urban, peri-urban, and rural areas (Target 11.a), increasing number of cities implementing such policies (Target 11.b), and supporting Least Developed Countries (LDCs) through financial and technical assistance to build sustainable and resilient infrastructure (Target 11.c).

**Figure 5: Expected Achievements and Data Availability for SDG-11 in SSWA**



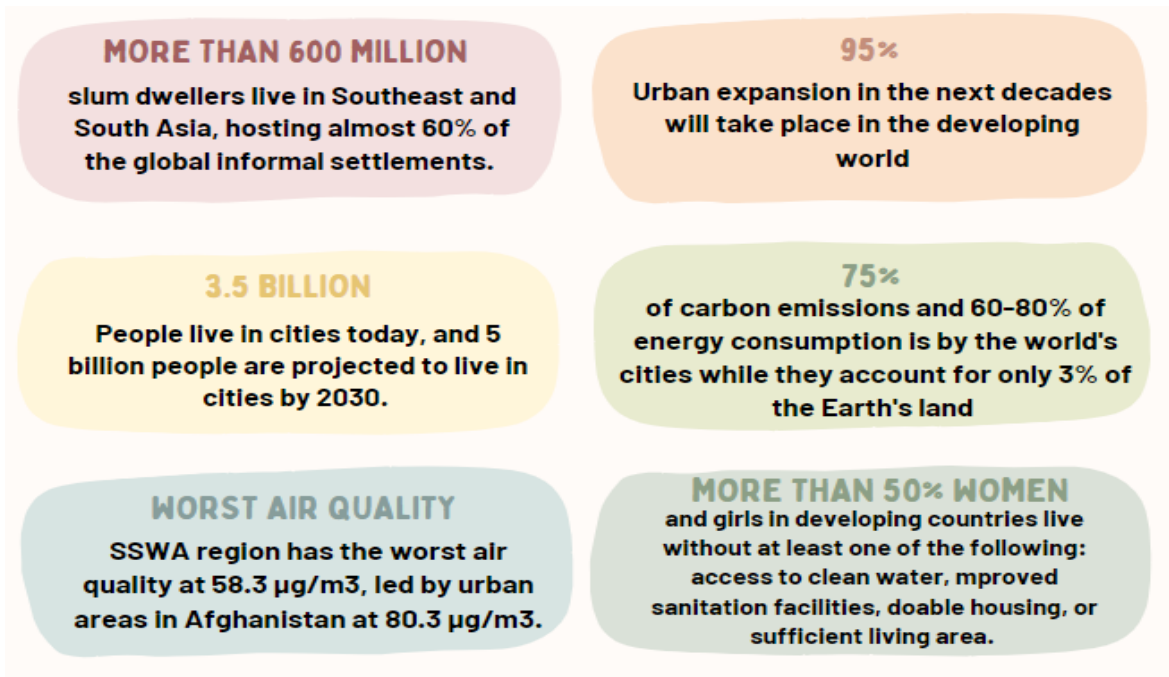
Source: ESCAP (2023a)

Assessing and tracking countries' status and progress on these targets requires the availability of adequate data. An updated data can provide enough evidence of progress made as well as areas where urgent policy interventions are required. Figure 5 shows the SDG-11 targets that require acceleration of progress, those that show a reverse trend, and those that do not have data to be measured. Data availability status for SDG-11 in the SSWA region shows a serious shortfall,

where no data was available for 7 (50% of all) indicators (ESCAP, *SDG Data Availability*, 2022). These include targets on convenient access to public transport, waste management, and physical or sexual harassment, among other issues. Only 6 (43%) indicators had sufficient data, including targets related to urban slum population, economic and human life loss from disasters, urban pollution, and disaster risk reduction strategies, while one indicator (urban and regional development plans) had insufficient data. Although data availability figures are more or less the same for all SSWA countries, Maldives (52.81%), Bhutan (53.25%), Afghanistan (54.98%), and Iran (Islamic Republic of) (56.28%) have the lowest number of indicators with sufficient data. Lack of sufficient data not only hinders adequate assessment of progress on this SDG but might also signify a lack of enough interest and focus on this goal in the SSWA region.

This paper focuses on some issues under the targets 11.1, 11.2, 11.3, and 11.6. It is important to note that there is a lot of connectivity between SDG 11 targets and other SDGs, such as SDG-1 (No Poverty), SDG-4 (Quality Education), SDG-5 (Gender Equality), SDG-6 (Clean Water and Sanitation), SDG-7 (Affordable and Clean Energy), SDG-8 (Decent Work and Education), SDG-12 (Responsible Consumption and Production), and SDG-13 (Climate Action). Supporting one goal or target will have positive impacts on other SDGs as well.

**Figure 6: SDG 11 – Facts & Figures**



Source: Data from United Nations (2023), ESCAP (2023c), and UN Women (n.d.).

Most countries in the SSWA region have not reached the expected state in their progress toward achieving SDG-11. According to Sustainable Development Report findings shown in Figure 7, achievement of SDG-11 is on track only in Maldives and is moderately improving in Bangladesh,

Bhutan, Sri Lanka, and Türkiye. The scores have somewhat stagnated in Afghanistan, Iran (Islamic Republic of), Nepal, and Pakistan. India is the only country in the subregion whose score for SDG-11 has decreased. Out of all countries in the sub-region, Bhutan has some 'challenges' to address under SDG-11 but can be better placed among the rest and is the only country to improve the situation of challenges remaining in the past 5 years. Four countries – Iran (Islamic Republic of), Maldives, Sri Lanka, and Türkiye have 'significant challenges' to address towards SDG-11 and the other five countries – Afghanistan, Bangladesh, India, Nepal, and Pakistan have some 'major challenges' to address for the achievement of this goal.

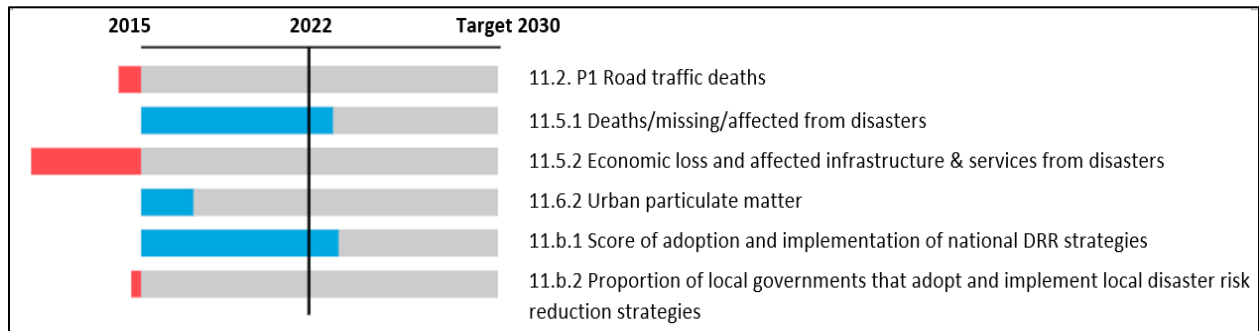
**Figure 7: SDG-11 Progress - South and South-West Asia**

Country	2018	2022	Progress (2022)	SDG-11 Status
Afghanistan				Score stagnating or increasing at less than 50% of required rate
Bangladesh				Score moderately improving, insufficient to attain goal
Bhutan				Score moderately improving, insufficient to attain goal
India				Score decreasing
Iran (Islamic Republic of)				Score stagnating or increasing at less than 50% of required rate
Maldives				On track or maintaining SDG achievement
Nepal				Score stagnating or increasing at less than 50% of required rate
Pakistan				Score stagnating or increasing at less than 50% of required rate
Sri Lanka				Score moderately improving, insufficient to attain goal
Türkiye				Score moderately improving, insufficient to attain goal

	SDG Achievement
	Challenges Remain
	Significant Challenges Remain
	Major Challenges Remain

Source: Data from Sachs, et.al (2018) and Sachs, et.al. (2022).

**Figure 8: SDG-11 Indicators Progress in SSWA**



Source: ESCAP, *SDG Progress* (2023b)

The already slow progress, coupled with the unprecedented effects of COVID-19, will require urgent strategic and concentrated efforts to accelerate progress toward achieving the 2030 Agenda in the subregion. Figure 8 also suggests that the main areas that need urgent action to reverse negative trends are protecting human, economic, infrastructure, and services loss from disasters, Preparing local governments to adapt and implement local disaster risk reduction measures, and controlling pollution. Without these, the subregion will not achieve the 2030 targets.

## 5. SDG-11 Focus Areas: Lingering Challenges

### 5.1 Slums, Informal Settlements, and Affordable Housing

Concerning Target 11.1, cities need to ensure access for all to adequate, safe, and affordable housing and basic services. According to UN-Habitat (2018), slums are urban areas that lack one or more of the following: durable housing of a permanent nature that protects against extreme climate conditions; sufficient living space, which means not more than three people sharing the same room; easy access to safe water in sufficient amounts, at an affordable price; access to adequate sanitation in the form of a private or public toilet, shared by a reasonable number of people; and security of tenure that prevents forced eviction and forced resettlement. The high cost of urban land and lack of sufficient affordable low-cost housing for the urban poor has resulted in the growth of slums.

**Figure 9: Slums in Colombo, Sri Lanka**

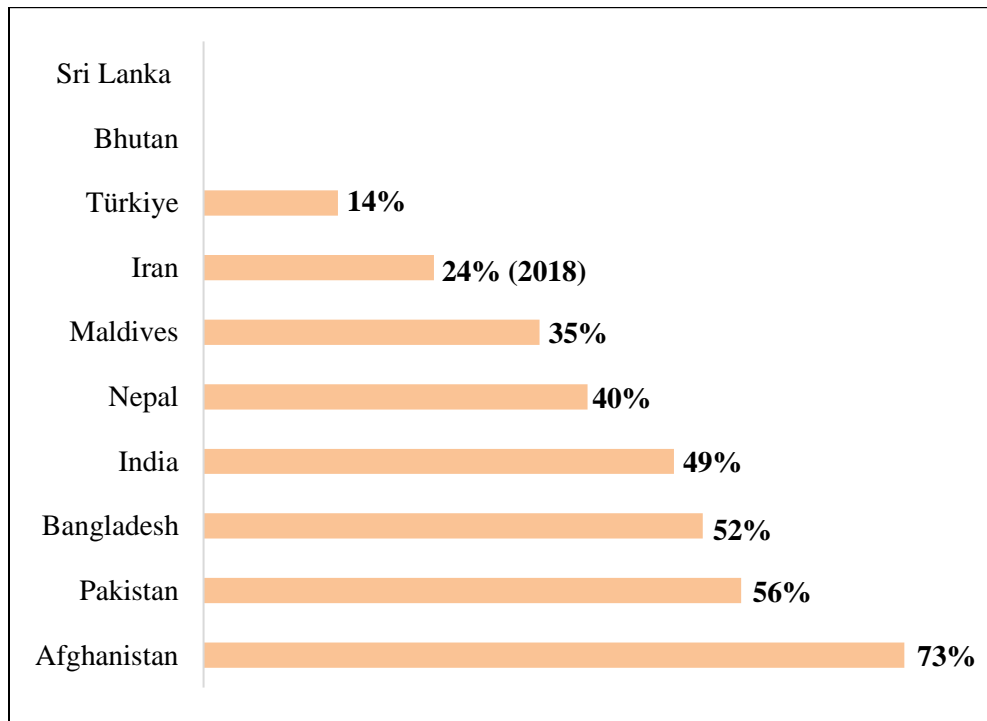


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Figure 10 shows that more than one-third of the urban population in the majority of SSWA countries lives in slums or informal settlements, with the highest percentage (73 percent) living in Afghanistan, followed by Pakistan (56 percent) (World Bank, 2020a). In most of these countries, the housing demand in urban areas is very high, but the housing supply is meagre. Also, poverty of all types saw an uptick because of the pandemic, and the number of people living in poverty is

expected to be higher than the figures suggest. Besides, these data are for officially recognized slums/informal settlements and "non-notified" or non-recognized slums in South Asia often have worse conditions as they don't officially exist or get access to government support. In other words, the scale of urban informality and poverty is likely larger than what these statistics present.

**Figure 10: Percentage of Urban Population Living in Slums in SSWA Region in 2018 and 2020**



*Source:* Data from World Bank (2020a) except for Iran (Islamic Republic of) whose latest data available is from 2018 (UN-Habitat, 2021)

*Note:* No data available for Sri Lanka and Bhutan.

On the other hand, all countries in the sub-region show some progress in poverty reduction except for Afghanistan and Iran (Islamic Republic of). In Afghanistan, urban poverty increased from 42 percent in 2016 to almost 47.6 percent in 2020 (Table 1). Likewise, 31.8 percent of Iranians lived below the poverty line in 2018, which increased to 36.1 percent in 2019. However, these data are largely pre-pandemic; hence, the current figures of all these countries would likely be worse as it is reported that COVID-19 has pushed around 89 million people in Asia and the Pacific back into extreme poverty in the last two years (ESCAP, 2021a).



**Table 1: Poverty Rate in SSWA Region**

Country	National Poverty Rate (%)	Urban Poverty (%)	Year
Afghanistan <sup>2</sup>	47.1	45.5	2020
Bangladesh <sup>3</sup>	24.3	--	2016
Bhutan <sup>4</sup>	8.2	--	2017
India <sup>5</sup>	10.2	6.3	2019
Iran (Islamic Republic of) <sup>6</sup>	36.1	6.48	2019
Maldives <sup>7</sup>	19.9	--	2020
Nepal <sup>8</sup>	25.2	--	2010
Pakistan <sup>9</sup>	21.9	10.9	2018
Sri Lanka <sup>10</sup>	14.3	--	2019
Türkiye <sup>11</sup>	14.4	--	2020

If Figure 10 is compared with Table 1, in Bangladesh, India, Nepal, Maldives, and Pakistan, it shows that poverty rate is between 10 - 30 percent, but each of their share of the urban population living in slums is significantly higher. This disparity is because the urban slums and informal settlements in South Asia house not only the poor but also home to many people well off by local standards (Ellis & Roberts, 2016).

The implication is that factors beyond poverty, such as poorly performing urban land and housing markets, inadequate infrastructure, and lack of housing finance, are important contributors to the formation and expansion of slums and informal settlements.

On the other hand, comparing the increase in percentage of urban population with the increase in percentage of urban population living in slums (Figure 11) shows that Bangladesh, India, Nepal, Nepal, Pakistan, Maldives, and Türkiye have witnessed a significant decrease in urban slum population despite rapid growth in urban population. Nepal leads with a 26% decrease in urban slum population. Afghanistan is the only country that experienced an increase in urban slum population with a 9% increase, even higher than its growth of urban population by 6%.

<sup>2</sup> Source: World Bank (2021b).

<sup>3</sup> Source: World Bank (2023a).

<sup>4</sup> Source: World Bank (2023b)

<sup>5</sup> Source: Roy & Weide (2022)

<sup>6</sup> Source: Iran Ministry of Cooperatives, Labour, and Social Welfare (2021)

<sup>7</sup> Source: World Bank (2023c)

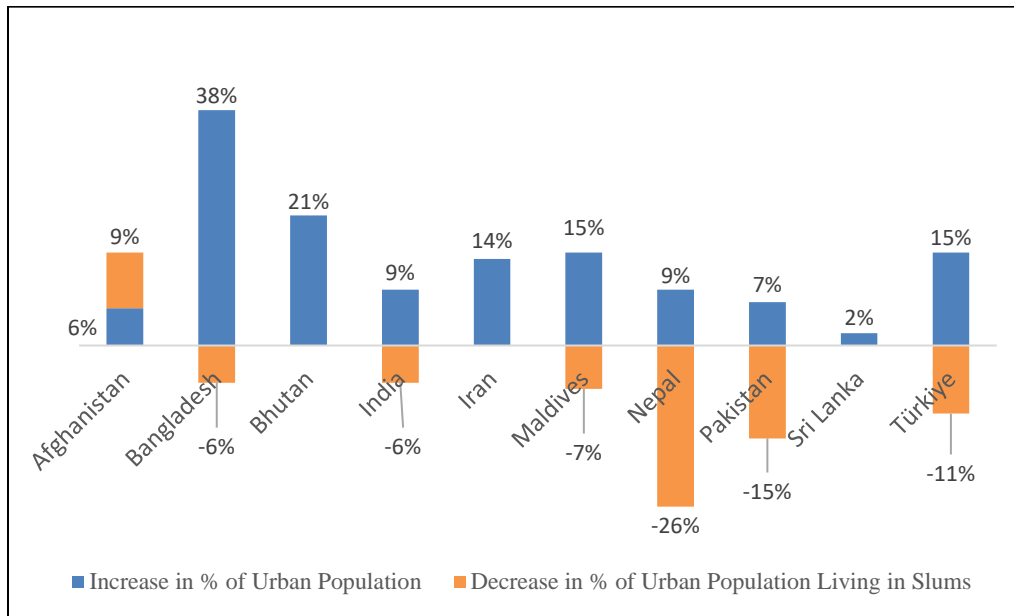
<sup>8</sup> Source: World Bank (2023d)

<sup>9</sup> Source: World Bank (2023e)

<sup>10</sup> Source: World Bank (2023f)

<sup>11</sup> Source: World Bank (2023g)

**Figure 11: Comparison of Increase in Urban Population (2000-2025) and Urban Slum Population (2000-2020)**



*Source:* United Nations (2018) and World Bank (2020a)

*Note:* No data available for percentage of urban population living in slums in Iran (Islamic Republic of), Sri Lanka, and Bhutan. For percentage of urban population living in slums, Afghanistan’s increase is calculated from 2006 to 2020 and Maldives’ from 2004 to 2020 as per availability of data.

More importantly, it is observed that while the proportion of people living in slums has been declining since 1990, the absolute numbers have been increasing owing to accelerating urbanization, population growth and lack of appropriate land and housing policies. In South Asia, the percentage of the urban population living in slums in 2000 was 58 percent, which declined to 52 percent in 2014 and further down to 51 percent in 2018 and to 50 percent in 2020 (World Bank, 2020a).

Most cities in Asia-Pacific are struggling to meet the demand for affordable and adequate housing, including the required supporting infrastructure and services such as water and sanitation, solid waste management, energy, technology, transportation, and social services, including healthcare, education, public and community facilities, and access to livelihoods and economic opportunities, all of which impact the built and natural environments. Housing significantly impacts the economy of cities and regions, contributing an average of 13 percent of GDP, based on the study of several countries, including India (Habitat for Humanity, 2020). However, national economic stimulus plans rarely include housing initiatives as a key pathway to achieving greater social and economic outcomes.

The provision of adequate housing in cities is a key determinant for the health and well-being of urban households and the local environment acts as a platform for access to other social and

economic services. It therefore plays a central role in achieving numerous SDGs. Building liveable and sustainable cities requires a multidimensional approach that incorporates social, economic, and environmental dimensions, and providing adequate housing for all urban residents is central to that.

### ***5.2 Unsustainable Transport Systems***

One of the other most important targets of SDG-11 is 11.2, which calls for providing access to safe, affordable, accessible, and sustainable transport systems for all, improving road safety by expanding public transport, with special attention given to the needs of those in vulnerable situations, women, children, persons with disabilities, and older persons.

**Figure 12: Overcrowded Buses in Dhaka, Bangladesh**



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Public transport, namely buses and local trains/ metros, is the primary mode of transport in most SSWA cities. However, public buses are often insufficient for the large population that uses these affordable services. Case studies show that women primarily are put at a greater disadvantage due to unavailability of women-friendly public transportation, i.e., regular buses with less wait times, safety in buses and around bus stations, proper lighting on streets, affordable tickets, and availability of seats for women and accompanying children (Nikore & Ollivier, 2022). It is common practice in, for instance, India, for parents to stop girl students from travelling to their

schools due to harassment on streets and buses enroute to school. Many women quit jobs due to long waiting hours and overcrowding on buses. Thus, women's access to education, jobs, or any other purpose is hampered by the lack of safety and availability of adequate public transportation systems.

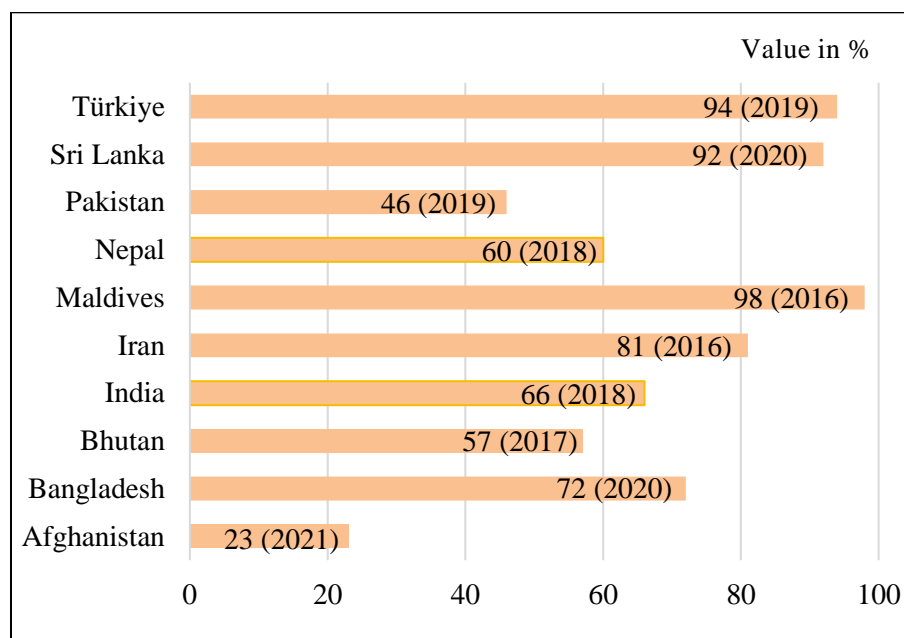
Moreover, private motor vehicle fleets are keeping up with the race in almost all these cities. For instance, in 2021, car sales in Pakistan surged by 54 percent (Pkvenue, 2022) and in India by 27 percent (Doval, 2022). Within India, the National Capital Region sold 136,869 passenger cars in 2021, while Delhi sold almost 128,907 cars in the national capital. Increasing private vehicle ownership not only contributes to already heavy traffic in the region, but also significantly leads to air pollution.

Likewise, most of the cities in the region lack dedicated cycle lanes. An inadequate number of charging stations for electric vehicles and even a lack of adequate pedestrian facilities is stalling the adoption of sustainable commuting practices. Public transport in the region is also in poor condition, and most bus fleets in these countries are either old and poorly maintained or unavailable at required facilities. Frequent cancellations of trips, delays, overloading, and long distances from the place of home or work to bus stations are some common problems.

### ***5.3 Inclusive and Safe Cities – Gender Perspective***

Ensuring that cities are safe and inclusive not only for women but also for other vulnerable groups like children, elderly, and people with disabilities come under several targets of SDG-11, including 11.1, 11.2, 11.5, and 11.7. Rapid urban transformation across the region exceeds cities' capacity to provide adequate infrastructure and essential services for the inhabitants, causing a rise in the proportions of urban poor, a considerable segment of which are women. The lack of enabling infrastructures like adequate housing, street lighting, public toilets, efficient water supply and transport have severely constricted women's accessibility to urban space.

Moreover, the literacy rate of adult females (15 years of age and above) in the subregion has also been traditionally poor. The female literacy rate of most countries is 60 percent and below, except for countries like Türkiye, Maldives, Sri Lanka, and Iran (Islamic Republic of), which crosses 80 percent (Figure 13).

**Figure 13: Literacy Rate of Adult Female (Ages 15 and above)**

Source: Data from World Bank (2021d)

Similarly, as shown in Table 2, the unemployment rate for women in 2021 in almost all of the countries within the region is increasing compared to 2019, except for Türkiye, which shows minor improvement in 2021.

**Table 2: Unemployment Rate of Women in SSWA Countries during 2019-2021**

Country	2019 (%)	2020 (%)	2021 (%)
Afghanistan	13.9	16.8	NA
Bangladesh	6.6	7.5	7.5
Bhutan	3.3	6.2	4.8
India	6.1	8.7	6.9
Iran (Islamic Republic of)	17.6	15.7	17.8
Maldives	3.8	4.4	4.5
Nepal	12	14.5	13.8
Pakistan	6.3	9.3	9.2
Sri Lanka	7.3	7.4	7.9
Türkiye	16.4	14.9	14.7

Source: Data from World Bank (2021c)  
Note: 2021 data not available for Afghanistan

Women comprised almost half of the total migrants moving within the South Asian region in mid 2010s (Chakraborty, 2020), however, they often face more complicated situations than their male

counterparts. Lower wages, ongoing health crises, difficult survival, and structural inequalities continue to put women migrants at a greater disadvantage than men. In fact, India's minimum daily wages for men and women casual workers working the same jobs in the same towns and villages are not the same, and women earn 32% less than men on average (Thakur, 2023). Women face even worse situations in this unprecedented crisis of the pandemic. Periodic lockdowns had led to widespread loss of work and income. Now while the men may migrate to urban areas, women are often left alone to manage the home, children, and other responsibilities with limited money sent home by the men.

Unsafe cities, inaccessible or unsafe transport systems, informal and dirty housing, coupled with low female literacy rates, rising unemployment for women, and unfair low minimum wages than men are core hindrances to improving the livelihoods of women, economy of the countries, and ensuring that growing urbanization is inclusive, fair, and sustainable. Making cities safe and inclusive for all, including the vulnerable groups, improving the transport and housing systems, and giving special attention to the needs of women, children, people with disabilities, and the elderly are most important for improving cities and the lives of city dwellers. Focusing on these targets will also have immense effects on improving other goals such as 4 (quality education), 5 (gender equality), and 8 (decent work and economic growth).

#### ***5.4 Solid Waste Management***

Another critical issue to address is achieving target 11.6, which states that cities should reduce the adverse per capita environmental impact by paying special attention to air quality and municipal and other waste management. Specifically, Target 11.6.1 focuses on managing and controlling municipal solid waste generated and collected in cities.

**Figure 14: A Pile of Garbage on the Street in Kathmandu, Nepal**



© Reuters

The sustainable consumption and safe disposal practices that were slowly gaining acceptance within the region almost got ignored under the spread of the coronavirus. There is a considerable increase in waste generation in healthcare in addition to already large amounts of waste produced in daily life. Within a month of the lockdown in Bangladesh alone, about 14,500 tons of hazardous plastic waste has emerged from the dramatically increased use of single-use surgical face masks, hand gloves, hand sanitizers and polythene bags in communities and healthcare facilities (ESDO, 2020).

It is worrisome that almost all countries in the SSWA region practice open dumping. However, cities have started making efforts recently to develop sanitary landfills, pursue recycling, and introduce bans on waste products that cannot be recycled, including single-use plastics. Also, many national and subnational authorities in the region, especially in India and Bangladesh have proactive bans on waste products like single-use plastics that cannot be recycled. Currently, most regions' cities hire private contractors to collect waste from neighborhoods and pay collectors based on the amount of waste transported to disposal sites. Although rules and regulations have been developed at national and State levels, these criteria are yet to be strictly enforced and translated into practice at the city level.

In short, the disposal of solid wastes in all urban areas is inadequate since the cost of disposal of large quantities of waste (Table 3) is often beyond the financial capacities of cities and municipalities in the SSWA region. There is also poor institutional capacity and low political will to address the problem, except for countries like India, where the Prime Minister himself actively pushed the Swachh Bharat Mission that was announced in 2014 to make the country cleaner, and hygienic, and manage waste more efficiently.

**Table 3: Amount of Municipal Solid Waste (MSW) Generated Per Year in SSWA**

Country	MSW Generated Per Year (Tons)	Year
Afghanistan <sup>12</sup>	5,628,525	2016
Bangladesh <sup>13</sup>	9,125,000	2019
Bhutan <sup>14</sup>	62,831.5	2019
India <sup>15</sup>	58,414,198	2021
Iran (Islamic Republic of) <sup>16</sup>	61,000,000	2021
Maldives <sup>17</sup>	432,795	2019
Nepal <sup>18</sup>	1,800,000	2019
Pakistan <sup>19</sup>	49,600,000	2020
Sri Lanka <sup>20</sup>	2,555,000	2016
Türkiye <sup>21</sup>	32,200,000	2018
<i>Note:</i> For Bangladesh, India, and Sri Lanka, the number is calculated based on the 25,000 tons, 160,038.9 tons, and 7,000 tons respectively of waste generated per day.		

According to Central Pollution Control Board Annual Report 2021 (CPCB, 2021), in India, out of the 160,038.9 tons per day (TPD) waste generated, 152,749.5 TPD of waste is collected at a collection efficiency of 95.4 percent. Almost 79,956.3 TPD (50 percent) of waste is treated and 29,427.2 (18.4 percent) TPD is landfilled. Rest, 50,655.4 TPD or 31.7 percent of the total waste generated, remains untreated.

Many cities across the region lack the facilities for the safe disposal of MSW and the most common disposal practice is uncontrolled dumping. In Delhi, almost 45 percent of the city's daily MSW still gets dumped at landfills outside the city limits, and so is the case across most cities in Pakistan. Lahore is the only city with proper solid waste management, treatment, and disposal system, which was outsourced to an international private company.

In the Maldives, the lack of a sustainable system to manage the solid waste generated in the country often results in waste spillage into the ocean and open dumping and burning of garbage at the

<sup>12</sup> Source: Kaza, Yao, Bhada-Tata, & Woerden (2018)

<sup>13</sup> Source: Islam (2021)

<sup>14</sup> Source: UN ESCAP (2021b)

<sup>15</sup> Source: CPCB (2022)

<sup>16</sup> Source: Bakhtiari (2022)

<sup>17</sup> Source: Moosa (2021)

<sup>18</sup> Source: World Bank (2020b)

<sup>19</sup> Source: ITA (2022)

<sup>20</sup> Source: IPEN (2021)

<sup>21</sup> Source: Hussein, Uren, Rekik, & Hammami (2021)



dumpsite, which has no pollution control measures, creating public health and environmental hazards (ADB, 2020).

### **5.5 Urban Air Pollution**

The sub-target 11.6.2 focuses on the annual mean levels of fine particulate matter (e.g., PM2.5 and PM10) in cities, which are the most harmful to public health.

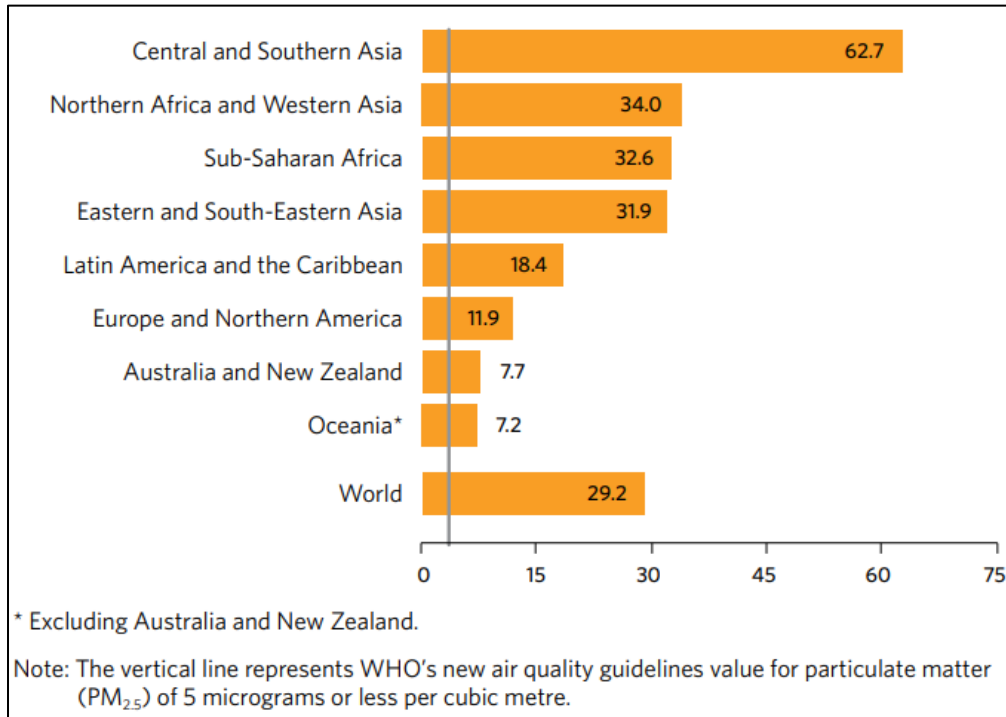
**Figure 15: Air Pollution in Lahore, Pakistan, World’s Most Polluted City in 2020**



© Arif Ali/ AFP

The Sustainable Development Goals Report (2022) reveals that Central and South Asia had some of the world's worst air quality and was home to 46 of the world's 50 most polluted cities. Figure 16 shows that annual exposure to particulate matter (PM2.5) in urban areas was the highest in Central and South Asia. This figure excludes Türkiye (PM 2.5 level of 20, i.e., exceeds WHO PM2.5 guidelines by 3 to 5 times) and includes Tajikistan, Kyrgyzstan, Uzbekistan, Kazakhstan, and Turkmenistan, all of which showed high pollution levels, but are outside the scope of this study. South Asian countries, particularly, Bangladesh (76.9), Pakistan (66.8), and India (58.1) are among the highest polluted regions in this figure and exceed WHO PM2.5 guidelines by over 10 times. Nepal (46) and Afghanistan (37.5) exceed WHO guidelines by 7 to 10 times and Iran (Islamic Republic of) by 5 to 7 times (IQAir, 2021). All cities in the region see the effects of air pollution resulting from widespread industrial pollution, crop residual burning, usage of unclean energy, and transportation emissions.

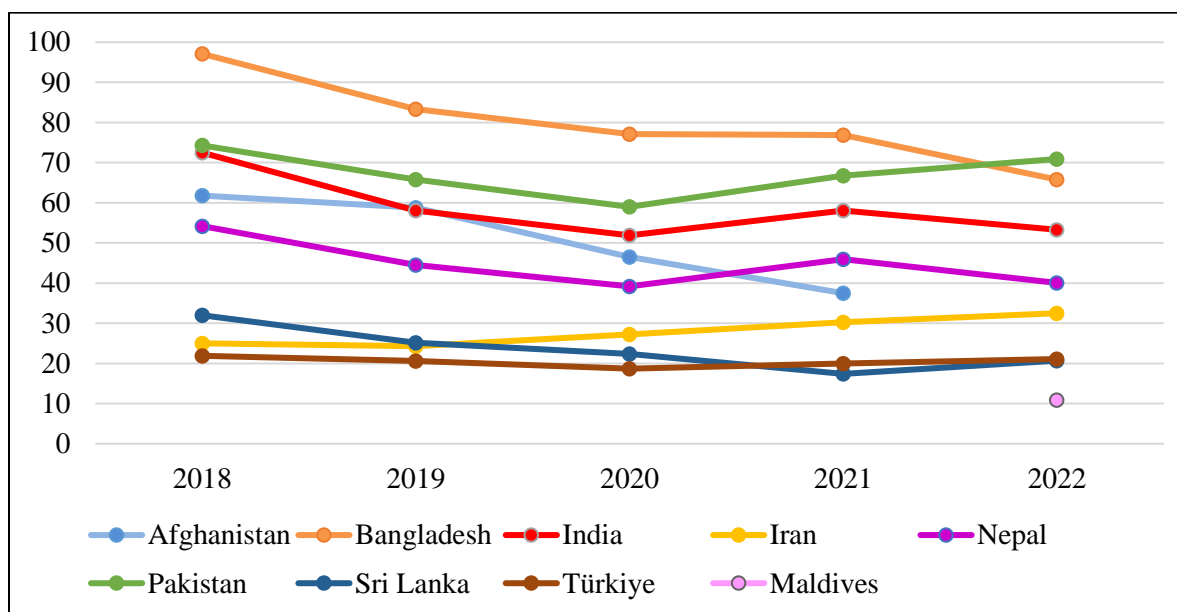
**Figure 16: Annual Exposure to Particulate Matter (PM<sub>2.5</sub>) in Urban Areas, Three-Year Average from 2017 to 2019 (micrograms per cubic meter)**



Source: United Nations. (2023)

The 2021 World Air Quality Report also specifies that India and Pakistan generally experience the worst air quality in this region, with 48 percent and 67 percent of cities respectively with PM<sub>2.5</sub> concentrations greater than ten times the 2021 WHO air quality guideline level (IQAir, 2021). Likewise, 11 of the 15 most polluted cities in Central and South Asia were in India (IQAir, 2022). Except for Afghanistan, Bangladesh, and Sri Lanka, PM<sub>2.5</sub> concentrations increased in Central and South Asian countries in 2021, wiping nearly all quarantine-correlated air quality improvements (Figure 17). Still, Pakistan, Bangladesh, India, and Nepal remained the highest polluted countries in 2022.

**Figure 17: Population weighted, Annual Average PM2.5 Concentration ( $\mu\text{g}/\text{m}^3$ ), of SSWA Countries (2018-2022)**



*Source:* Data Compiled from IQAir 2018, 2019, 2020, 2021, and 2022.

*Note:* Cities in Bhutan and Maldives did not meet the required limit of 60% annual data availability and were therefore excluded from the reports. Maldives was included in the 2022 report, while Afghanistan was not.

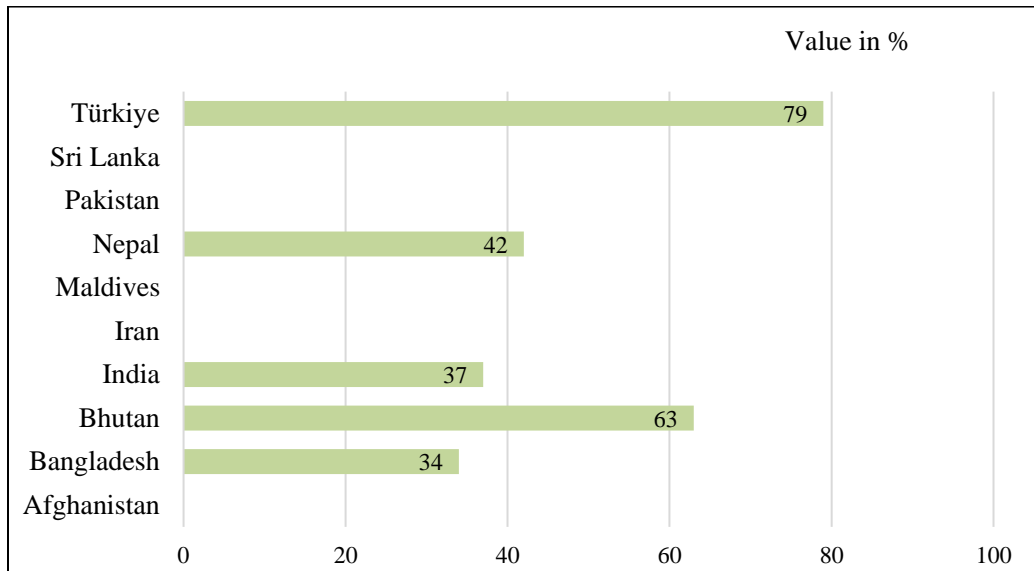
The Lancet Planetary Health Journal also published an article in 2021 stating that 1.67 million deaths were attributable to air pollution in India in 2019, accounting for 17.8 percent of the total deaths in the country (Lancet Planet Health, 2021). This incurred a total loss of US\$36.8bn to the economy, which was 1.36 percent of India's gross domestic product (GDP). Similarly, the global health cost of mortality and morbidity caused by PM2.5 air pollution in 2019 was US\$8.1tn, equivalent to 6.1 percent of the global GDP. The high costs of pollution to public health and environment and huge costs to the national economies can and should be resolved urgently and requires concerted efforts of governments, public and private sectors, and the people.

### 5.6 Urban Sanitation

Sanitation is part of Target 11.6 as well as Target 6.2.1 (b) and urges cities to manage hygiene and sanitation for public health and environmental protection. Despite enormous efforts by stakeholders in the SSWA region, several issues have held back the progress of sanitation services in cities. Most countries lack the local or municipality-level capacity to operate and maintain existing sewerage systems and wastewater treatment plants. Low political priority, low transparency and accountability of elected representatives, poor design, inappropriate technology choices, and lack of finance for operation and maintenance all contribute to this situation. Besides, installing wastewater treatment and sewerage networks is not always financially viable at informal settlements and may not be the most suitable and effective for the local context.

As per Figure 18, other than Türkiye and Bhutan, none of the countries in the SSWA region could ensure safe sanitation for at least half of its urban population. According to the World Bank (2016), Türkiye has rich experience managing water supply and sanitation services. The country has also made significant progress towards complying with European Union (EU) water-related directives.

**Figure 18: SSWA: Percentage of Urban Population Using Safely Managed Sanitation Services in 2020**



*Source:* Data from World Bank (2020c)

*Note:* No data available for Sri Lanka, Pakistan, Maldives, Iran (Islamic Republic of), and Afghanistan.

In India, it is estimated that poor sanitation costs India 5.2 percent of its GDP annually and a staggering 78 percent of sewage generated in India remains untreated and is unsafely disposed of in rivers, groundwater, or lakes, contaminating 90 percent of all surface water (Nathan, 2022). A recent study in India has highlighted a prevalence of habitual toilet avoidance among vulnerable urban women in informal settlements due to a lack of access to safe sanitation (Panchang, Joshi, & Kale, 2022).

Responsible waste management, providing sanitation services, and improving air quality is the key to maintaining public and environmental health, and while doing so, also promoting SDG-3 (good health and well-being), 6 (clean water and sanitation), and 13 (climate action).

## **6. Good Practices and Way Forward**

Achieving any sustainable goal is a continuous interactive process of all stakeholders and includes planning, participation, and action for the long term. Each country needs to determine how best to prepare, plan, and implement strategies for achieving each goal depending upon the prevailing political, historical, cultural, ecological, and economic circumstances. Given that the countries in SSWA are at different stages of development and challenges also vary, any approach which is based on universality of "one-size-fits-all" is not desirable. However, considering the fact that the subregion also has many common challenges, sharing and learning from best practices among the countries facing the same types of issues while localizing the method is proven to be a successful approach as it provides information on potential solutions, relevant concerns in implementations and expected result. In this regard, and using subregional platforms and partnerships such as SANS network hosted by ESCAP which provides a platform for multistakeholder partnership toward achieving the SDGs could have significant benefits. As a part of the ongoing actions toward SDG 11, the following can be suggested:

### ***6.1 Develop Smart Cities***

Given underdevelopment and adverse effects of rapid urbanization as well as the important contribution of cities in accommodating vast proportions of population and contributing to the economy, countries around the world are developing "smart cities." Smart Cities, as a concept, tap a range of digital and information technologies, urban planning best practices, public-private partnerships, and policy change. The core infrastructure elements addressed by this initiative include ensuring adequate water supply, assured electricity supply, sanitation (including solid waste management), efficient urban mobility and public transport, affordable housing, especially for the poor, robust IT connectivity and digitization, good governance especially e-Governance and citizen participation, sustainable environment, safety and security of citizens, particularly women, children, and the elderly, and health and education.

India, for instance, has launched the Smart Cities Mission, an innovative and new initiative to drive economic growth, provide core infrastructure and a clean and sustainable environment, and improve the quality of life of people by enabling local development and harnessing technology as a means to create smart outcomes for citizens (National Portal of India, 2016). The Smart Cities Mission in India covers at least 100 cities over a period of 5 years (2015-2020 and continued), distributed among States and Union Territories (UTs) on an equitable criterion. Under the project, 7973 projects have been implemented with 73% already completed and the rest ongoing (Ministry of Housing and Urban Affairs, 2021). The Smart Cities Mission won the Innovation Award for Data-Smart Cities (DSC) at Smart City Expo World Congress 2022 in Barcelona and the Digital India Award 2022 for the same.

The concept of a Smart City can effectively address the main challenges associated with SDG-11 including slums and inadequate housing facilities, unsustainable transport systems, solid waste management, urban air pollution, and urban sanitation. The Smart Cities Mission is meant to set examples that can be replicated both within and outside the Smart City, catalysing the creation of similar Smart Cities in various regions and parts of the country.

As a result of the Smart Cities Mission in India, the smart city of Dehradun, a popular tourist place, witnessed smart, clean, affordable, and accessible public toilets as well as a Public Bicycle Sharing system that allows users to commute by bicycle for a minimal user charge. The system allows for a low-cost, emission-free, and healthy transport option for the citizens for short-distance trips (Dehradun Smart City Ltd., 2020).

Similarly, there have been projects to redevelop slums and/ or rehabilitate slum dwellers. In the Indian capital City of Delhi, nearly a decade after the foundation for Delhi's Kalkaji Extension slum rehabilitation project, 3,024 flats for Economically Weaker Sections (EWS) were inaugurated in November 2022. This project is part of the Delhi Development Authority's (DDA) larger plan to rehabilitate residents of 376 slum clusters. The Kalkaji Extension flats are an example of in-situ slum redevelopment (ISSR). This involves rehousing the former slum residents in multi-storey buildings constructed in the same location in order to avoid displacing people and hurting their livelihoods (Vats, 2022).

## 6.2 Improve Public Transport

The region needs to vigorously work towards attracting its urban population to depend more on the public transport system rather than opting for private vehicles. But for that to happen, the countries must ensure that public transports are frequently available, easily accessible and, more importantly, safe and hygienic. It is vital to improving existing public transport because an efficient network of roads and trains are the backbone of any economy.

**Figure 19: Marshals on Duty in Delhi Public Buses to Prevent Harassment Against Women**



Source: ©Praveen Khanna

However, only a few percent of the city roads in most countries have walkable sidewalks. Roadside parking increased private vehicle ownership, inadequate public transport and terminals, undisciplined driving, and the lack of parking and non-motorised transport infrastructure have aggravated traffic woes in cities like Dhaka, Mumbai, and Lahore. In India, the Public Bicycle Sharing (PBS) system has failed to pick up as most cities have been unable to provide dedicated and safe cycling tracks for its users. The convenience, health benefits, and affordability of bicycles could provide a far more significant proportion of urban passenger transportation, helping reduce energy use and CO<sub>2</sub> emissions worldwide. Improving the transport systems and building dedicated and usable walking and bicycle paths can make a significant contribution to urban mobility as well as sustainability. Reports show that a world with a dramatic increase in cycling could save US\$24tn cumulatively between 2015 and 2050 and cut CO<sub>2</sub> emissions from urban passenger transport by nearly 11 percent by 2050 compared to a High Shift scenario without a strong cycling emphasis (Mason, Fulton, & McDonald, 2015).

The city of Peshawar, Pakistan is the 2022 recipient of the Sustainable Transport Award's Honorable Mention and is a pioneer for transportation in its region. The city made an outstanding commitment to improve the welfare of its residents through an innovative new Bus Rapid Transit (BRT) system, Zu Peshawar. Since 2020, Zu Peshawar has created mobility conditions that stand in stark contrast to the city's history of congested streets, air pollution, and chaotic informal public transport modes. It delivered the region's first gold standard BRT, built the first bicycle-sharing system and dedicated bicycle lanes in the country, developed a system to respond to extreme heat and rain, and grounded these in an inclusive approach throughout the planning process. There have been landmark improvements to walking, cycling, and overall access to the city, alongside key investments into infrastructure upgrades that better prepare the city for a changing climate and more extreme weather events. Now utilized by hundreds of thousands of riders a day, Zu Peshawar stands as a model for sustainable and inclusive mobility planning (ITDP, 2022).

### ***6.3 Encourage Inclusive Cities for All***

Vulnerable groups including women, girls, people with disabilities, immigrants, and older population experience a higher degree of insecurity and vulnerability to violence and natural disasters, which limits their socioeconomic opportunities and access to city services. Urban bodies, therefore, have a responsibility to make it safer and easier for them to actualise their rights to city services, resources and facilities. These include the right to basic health services, schools and decent housing, and equal access to safe public transport, streets, sidewalks, parks, cultural centres and workspaces. Their empowerment and participation in decision-making have an impact on ensuring that emerging plans can respond to such issues more inclusively.

**Figure 20: Women’s Only Compartment, Tactile Pathway, and Small Gap between Platform and Metro for Wheelchair Users in Delhi Metro, India**



© Amit Mehra

Under India’s Clean India or *Swachh Bharat Mission (SBM)*, the country also implemented the world’s biggest toilet-building program to address the widespread sanitation and safety concerns of millions of people without access to private toilet facilities, especially the most vulnerable like women and children as these groups are at high risk of gender-based violence without access to private toilets. While the program mainly focused on rural areas where open defecation is rampant, building more than 100 million toilets, the Ministry of Housing and Urban Affairs has also rolled out a rolled out *Swachh Bharat Mission Urban (SBM-U) 2.0*, a drive to rejuvenate the Community and Public Toilets in cities. Under the program, a total of 6.28 million Individual Household Latrines (IHHLs) units and 636,000 Community Toilet/Public Toilet (CT/PT) have been constructed under the Mission. Out of total 92,634 wards, a total of 89,699 wards are practicing 100% door-to-door collection of waste and 83,487 wards are following 100% source segregation. As on date, out of total waste generated, a total of 75% of waste is processed (Government of India, 2023).

#### ***6.4 Enforce Ban on Open Burning of Waste and Crop Residuals***

The rampant practice of open burning of waste and especially crop residuals by most countries in the region and especially in South Asia significantly contributes to already high pollution levels in most cities. It could largely be attributed to governments' limited capacity to manage solid waste in an environment friendly way as well as lack of cooperation from farmers to shift to alternative practices. Countries in the region need to urgently enforce bans on burning of wastes and crop residuals, hold violators to account, and provide alternative efficient ways of disposal and management of waste to tackle issues related to air pollution more significantly.



In 2021, 38 European countries strictly enforced the ban on open burning of waste, up from 32 in 2016. Positive effects on public health could be attributed to this ban. For instance, in 2018, around 417,000 people were estimated to have died prematurely in the EU due to exposure to fine particles such as PM2.5 (directly emitted as particles or formed from gaseous pollutants in the atmosphere), which affects more people than any other air pollutant. By 2020, this figure dropped to 240,000, and by 2030, the toll is expected to fall to 170,000 (UNEP, 2021). Although there are stark differences between the amount of waste generated, policy formulation and implementation, and waste management capabilities between developed and developing countries, effective bans on waste burning is necessary for all countries in the SSWA region to tackle air pollution and manage waste more efficiently.

India's National Green Tribunal (NGT) in 2016 introduced a complete prohibition on burning in open areas, including landfills, across the country and announced a fine of Rs. 5000 for simple burnings and Rs. 25,000 on each incident of bulk waste burning (The Economic Times, 2016). While directing every State and Union Territory to enforce and implement Solid Waste Management Rules, 2016, the green panel also asked the Environment Ministry and all states to pass appropriate directions in relation to the ban on short-life Polyvinyl Chloride (PVC) and chlorinated plastics within a period of six months. All States and Union Territories in the country were required to create action plans for the management and disposal of waste in the entire State in a timely manner. Furthermore, non-biodegradable waste and non-recyclable plastic are required to be segregated from the landfill sites and used for the construction of roads and embankments in all road projects all over the country.

### ***6.5 Develop the Capacity of Urban Local Bodies***

Urban Local Bodies (ULBs) are small local bodies that administers or governs a city or a town of specified population. They have a pivotal role in the planning and development of urban areas. Therefore, they act as critical stakeholders to ensure the achievement of SDG-11 targets. But in almost all countries within the subregion, ULBs cannot deliver their assigned services efficiently and effectively due to a lack of adequate power and independence, insufficient resources, and a lack of capacity/expertise.

For instance, India's ULBs, under the states' complete control earlier, gained power through the 74<sup>th</sup> Amendment Act of 1992. This move was to make ULBs self-governing institutions with adequate autonomy. Although there have been positive outcomes since it came into effect in April 1993, many key issues remain unresolved, and at present, the states continue to dominate the ULBs. Other countries in the region face similar limitations. Moreover, while the demands for services are increasing with the growing population in urban areas, ULBs struggle to keep pace due to a lack of adequate funds, financial autonomy, complexity and overlap in the delegation of

powers, and lack of coordination among various departments results in poor efficiency of these urban bodies.

However, some ULBs are delivering services effectively by using innovative approaches and practices, for instance in the Indian state of Telangana. The state government has implemented various measures to strengthen urban local bodies, such as introducing direct elections for the positions of mayor and deputy mayor, ensuring better representation and accountability (The Hindu, 2021). The state also witnessed successful completion of municipal elections with a high voter turnout and smooth conduct. The reforms are expected to enhance urban governance and enable better delivery of services to residents in Telangana's cities and towns. However, there is no formal mechanism for sharing this learning among other ULBs. There is a lack of agencies or platforms to share these success stories/ best practices with other ULBs. Therefore, strengthening urban local governments through continuous capacity building and better financial management is vital for efficient urban development. Lack of skilled manpower is often identified as one of the key concerns across the region and therefore calls for enhanced measures to equip national and local training institutes to address it effectively.

### ***6.6 Encourage Circular Economy***

The circular economy concept, an economic system based on the reuse and regeneration of materials or products, especially as a means of continuing production in a sustainable or environmentally friendly way, is yet to develop and reach its full potential across the SSWA region. While numerous practices like a collection of e-waste, making bags out of used worn-out cloths, converting organic wastes into composts, converting used tyres into furniture etc. are becoming popular across the region, successful large-scale efforts are yet to be witnessed.

Most efforts are currently directed at disposal strategies rather than on 'Reducing, Reusing and Recycling' waste. Therefore, governments need to strengthen their efforts to not only ensure waste segregation at source and improve waste processing capacities but also encourage the concept of a circular economy. Getting broken things repaired, an age-old practice among people in the region is now no longer practiced largely due to a lack of adequate services and market influence. Efforts should therefore be focused towards reviving such sustainable practices. More importantly, closing the loop in the circular economy by integrating informal waste actors into the formal waste Management system remains crucial.

Besides, the region needs to shift its focus on tapping renewable energy, which is a crucial pillar of the Circular Economy. Achieving resource efficiency and transitioning towards a circular economy can help countries to reach long-term environmental objectives as well as promote job creation and economic growth.

Renewables like solar and wind power are becoming increasingly viable alternatives to fossil fuels. Further, to meet the goals of the Paris Agreement, to which all 10 countries are a signatory, public officials and corporate leaders must accelerate the phase-out of coal power and embrace renewable energies. Because fossil fuels remain the primary energy source in all the region's cities, sustainable energy is becoming increasingly essential.

Research and development of renewable energy models in urban areas are becoming imperative to achieve a sustainable energy system. Many cities around the globe have already expressed their commitment towards a 100 percent renewable model to become carbon-neutral cities. In the SSWA region, countries like Türkiye and India should lead research and development and exchange best practices with their neighbours. All countries in the region need to introduce meaningful climate reduction targets and actions. 5-6

Türkiye's renewable capacity grew by 50 percent over the last five years. In 2019, Türkiye had the fifth-highest level of new renewable capacity additions in Europe and the 15<sup>th</sup>-highest in the world. The International Energy Agency (IEA) report notes that Türkiye can achieve even stronger growth in renewables – especially solar, wind and geothermal – given its considerable resource endowment. Notably, Türkiye uses only an estimated three percent of its solar and 15 percent of its onshore wind potential (IEA, 2021).

**Figure 21: Borusan Enerji's 28 MW Wind Farm in Türkiye**



### ***6.7 Make Cities More Resilient to Disasters***

The key issue for South and South-West Asia with regard to SDG-11 achievement is urban impact to disasters, including economic loss and damage in cities. Climate disaster affects countries in the SSWA region in similar ways and has already displaced millions of people. It is also one of the fields where the countries can and should overcome geopolitics and cooperate. The countries should together devise meaningful climate reduction targets/ actions by 2030. This requires a people-centric approach to help build community resilience through early warning and response systems and the productive safety net programme. Countries in the region should also look for synergies between adaptation, mitigation, and development, such as relying on nature-based solutions for water resource management or building greener and sustainable cities to reduce the need for cooling (Raiser, 2022).

Nature-based solutions, such as conserving forests, wetlands, and coral reefs, help communities prepare for, cope with, and recover from disasters, including slow-onset events like drought. Such measures can also be cost-effective and ‘no-regret’ solutions to reduce disaster risks, complementing conventional engineering measures such as sea walls and storm channels (IUCN, 2017). However, investment in ‘natural infrastructure’ is underexplored in policies aimed at reducing risk. There is an urgent need to invest in nature-based solutions for disaster risk reduction to minimise the regions’ vulnerability to future disasters.

Flooding in Colombo city occurs frequently every year, destroying livelihoods and city infrastructure. As the city expands in size, population, and aspirations, the need to address its vulnerability to flooding to realize a high quality of life for its residents was felt. The Metro Colombo Urban Development Project helps reduce the risk and impacts of flooding while making the city more livable and competitive through investments in public spaces, wetlands, and infrastructure. The goal of the project is not just to prevent future flooding with hard infrastructure, but to reposition urban parks and wetlands as the beating heart of city life. Since its approval in 2013, the project has increased the drainage capacity of the gravity system by 110 cubic meters, built 45km of roads and drainage that have achieved project standards, improved 4km of primary canals to reduce flooding, (World Bank, 2018).

Additionally, accessing adequate finance for climate resilience developmental activities remains a challenge for all countries within the region. Slow economic growth after recovering from the economic impact of the COVID-19 pandemic has constrained governments’ fiscal space across South Asia. Therefore, exploring other variables like prospects for the developed countries to share financial burden, encouraging private sector participation in climate action and reducing climate risks, etc., is necessary. Investing in human capital and improving social protection systems can

also help communities better prepare for and respond to the increasing and inevitable climate shocks they face.

### ***6.8 Protect Existing and Expand Inclusive Public Urban Green Spaces***

Green spaces in urban areas substantially help increase the quality of life, enhance local resilience, promote sustainable lifestyles, and reduce the urban heat island effect caused by climate change. Almost all major cities in the SSWA region have shown a considerable decline in urban green space over the past few decades as a result of deforestation and urbanization. While it is a known fact that the local authorities within the region lack the financial means to establish new or modify existing green spaces, it is imperative to not only protect existing urban green spaces but also expand forest cover and make green spaces accessible to as many residents as possible.

**Figure 22: Roadside Signs to Promote Green Spaces in Bhutan**



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The city of Mumbai in India recently signed the C40 Cities Urban Nature Declaration to pledge to invest in green spaces to improve air quality, becoming the only city from the SSWA region to sign the Declaration. C40<sup>22</sup> is a global network of mayors of nearly 100 world-leading cities collaborating to deliver the urgent action needed to confront the climate crisis. Mayors of C40 cities are committed to using an inclusive, science-based, and collaborative approach to cut their fair share of emissions in half by 2030, help the world limit global heating to 1.5°C, and build healthy, equitable and resilient communities.

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<sup>22</sup> Read more here: <https://www.c40.org/>

Kerala, southernmost state of India, is successfully implementing *Pachathuruthu* (Green Space) project that involves the creation of forest patches with endemic species of flora in public places and unused properties (The Hindu, 2022). As many as 1,850 forest patches were created in 574 acres of land already in the earlier version of the project that started in 2019 under the *Haritha Keralam* Mission. The initiative is implemented with the assistance of the agriculture department, local bodies, social forestry department, biodiversity board, environment organizations, employment guarantee scheme and various people's representatives.

### ***6.9 Stringent Enforcement and Implementation of Existing Policies***

There are multiple programmes and policies at both national and local levels in SSWA countries, which are forward-looking and supportive of achieving the goal of resilient and sustainable cities. While countries including Afghanistan, Bangladesh, Iran (Islamic Republic of), and Maldives do not have an established National Urban Policy (NUP); these countries still recognize the importance of sustainable urbanization. Afghanistan, for instance, had identified urban development as a key pillar of its "Realising Self Reliance"<sup>23</sup> decade (2015-2024) and established a National Priority Program, a precursor to an NUP (French, et al., 2020). However, it is unclear whether and to what extent progress in this program is being made in Afghanistan. Bangladesh's NUP draft is yet to be accepted, however, the country has been implementing elements of the draft NUP through the Five-Year Development Plans (Urban Policy Platform, 2021). Similarly, Iran (Islamic Republic of) and Maldives have some plans and programs at different levels that reflect the overall urban policies, but all countries should prioritise formalizing stringent and proper policies that address growing urbanization and subsequent challenges.

Although countries in the region have programs and policies to address challenges that come with rapid urbanization, laws are often not implemented or enforced in an efficient manner. This may be due to a lack of continuity in government policies, lack of sufficient funds, inadequate human resources and a lack of accountability. Most countries in the region including Bangladesh, India, Nepal, Pakistan and Sri Lanka have banned plastic carry bags over the past few years. However, their availability and usage are still rampant.

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<sup>23</sup> Read about the program here: <https://mof.gov.af/sites/default/files/2020-01/Afghanistan%27s%20Growth%20Agenda.pdf>

**Figure 23: Waste Segregation at Source in Indore, India, Termed Cleanest City in the Country**



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In India, the government has announced bans on single-use plastics multiple times, however, the country still lacks an organized system for implementation of the ban as well as for managing plastic waste. India's ban on single-use plastic items in 2022 included straws, cutlery, ear buds, packaging films, plastic sticks for balloons, candy and ice-cream, and cigarette packets, among other products, and the government planned to set up control rooms to check any illegal use, sale, and distribution of single-use plastic products (Bhardwaj, 2022). However, many of these items are still readily available in the market. The government excluded plastic bags from the ban due to consumer demands and asked manufacturers and importers to raise the thickness to promote reuse, but it is unclear if it has had any positive impact and it was reported that the manufacturers were not given enough time and resources to adapt to the change. For a complete ban to be successful, countries need to be prepared for the alternatives. Helping manufacturers transition to new products, encouraging efficient and strict recycling programs, informing retailers and the public about forthcoming bans on plastics, etc., and promoting sustainable and affordable alternatives are essential in making a ban successful.

Bangladesh is the first country in the world to ban single use plastics (UNEP, n.d.). In 2002, the government imposed a total ban on plastics as it choked the drainage system during devastating floods. In the last ten years, Bangladesh tripled public policies to ban plastic bags. Yet plastic waste remains to be a major problem for the country.

Alappuzha, a district in Southern India, implemented a project called *Clean Home Clean City* that focused on source segregation as the first and foremost step towards effective waste management. This decreased the operational cost of dealing with waste as well as created a source of revenue. Awareness campaigns by the city government to promote source segregation led to remarkable changes in the attitude and practices of the citizens. In 2017, the city was recognized by United Nations Environment Programme (UNEP) amongst five countries in the World that are adopting sustainable waste management practices for beating pollution (Agarwal, 2017).

### **6.10 Promoting Regional Cooperation**

Under ESCAP, The South and South-West Asia Network on the Sustainable Development Goals (SANS) has been developed to foster subregional cooperation by sharing good practices towards achievement of the SDGs amongst the government agencies, think-tanks, CSOs and other stakeholders in the South and Southwest Asia to build back better. SANS can continue to provide a suitable environment to engage in discussions on common challenges and their solutions as well act effectively for exchange of best practices in the subregion. Apart from the policy dialogues happening among the SANS members, further development of [SANS online database](#) hosted by ESCAP on Good Practices in the Subregion could provide a helpful source for solutions to challenged face by the countries in the subregion. Such regional platforms, including specialized ones concentrating on issues related to smart cities can drastically change the existing approaches to city planning and provide the countries in the subregion with support from other members who are going through similar issues.

SSWA countries have been trying to address major challenges such as air pollution, an increasing rate of disasters as a result of climate change, and informal housing, to name a few, and have taken steps toward policy transformation, with green growth and green economy policies and low carbon and emission plans. However, the region lags in implementing cooperative and multilateral policies and interventions to address common challenges in the process of urbanization, compared to other regions, partly due to persistent political barriers.

ASEAN region has multiple programs like the Smart Green ASEAN Cities programme, ASEAN Initiative on Environmentally Sustainable Cities, the ASEAN Smart Cities Network, the ASEAN Sustainable Urbanisation Strategy etc. Such focused and well-planned interventions seem to be missing within the SSWA region and are very crucial for the improvement of quality of life in cities and achievement of the SDG targets. Despite the existence of SAARC (South Asian Association for Regional Cooperation) and BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation), countries are not talking cohesively like the ASEAN. Thus, more active and coordinated efforts by SAARC and BIMSTEC are necessary. ESCAP can also play a key role in bringing these countries and SAARC/BIMSTEC on its multi-stakeholder platform to address common challenges.



## 7. Conclusion

South and South-West Asia region is lagging in the timeline to achieve sustainable development goals, including SDG-11, by 2030. Despite progress in framing and implementing new national and local policies for ensuring sustainable and inclusive cities, issues like poverty, informal settlements, pollution, traffic congestion, unsustainable transport systems, waste mismanagement, and disaster risk in cities continue to persist throughout the subregion. Addressing high air pollution levels remains a continued challenge, and a growing urban population continues to live in slums or inadequate housing with lack of basic amenities.

Shifting slum dwellers to formal housing without affecting their livelihoods, ensuring a sustainable transport system that ensures wide accessibility, safety, comfort and cleanliness, developing inclusive and smart cities, managing waste and sanitation efficiently, and significantly reducing air pollution by addressing its root causes in the cities are the primary steps to accelerate progress in SDG-11 in the SSWA region.

Effective collaboration and cooperation between governments at regional, national and local levels, including among various departments and urban local bodies, as well as adequate power, financial support, and skill enhancement of relevant stakeholders, are vital for successfully implementing sustainable developmental activities. Moreover, regional cooperation can effectively address common challenges in the subregion and generate more inclusive and sustainable growth by facilitating the sharing of experiences and good practices across countries and stakeholders. The region has not fully utilized this potential of regional cooperation to address common challenges. Simultaneously, countries within the region need to urgently adopt national urban policies and plans and develop comprehensive national housing programs that could facilitate economic growth and development and livelihood opportunities for the growing urban population.

While these issues and solutions are not new among the stakeholders and general population, it is vital to improve education, awareness-raising, and human and institutional capacity on issues like climate change mitigation, SDGs, sustainability, and inclusivity, to name a few. Sustainable urban opportunities created by the pandemic, such as avoiding unnecessary travel, more dependence on bicycles, less dependence on office space, work-from-home culture, and people's increased dependence on local food stores and local businesses, should constantly be encouraged even after the pandemic. Encouraging people to adopt even small and simple sustainable practices could enhance sustainability and reduce carbon footprint to a considerable extent. Urbanization is inevitable and can be a country's asset if the quality of life of people is ensured through sustainable means.

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