

Razia Sultana

APPLYING THE SDG 11 AS A MOVE FORWARD TO THE MDG AGENDA: TO WHAT EXTENT DOES THE GOAL REFLECT ON DHAKA'S URBAN POOR IN THE ERA OF COVID-19?

Abstract

The paper critically analyzes the progress of Sustainable Development Goal (SDG) 11 in the context of informal settlements in Dhaka, Bangladesh. In the unprecedented situation emanating from Covid-19, cities in Bangladesh are facing numerous problems regarding the health and economy. The issues of density and the rapid pace of urbanization have stipulated the situation for an uncertain period. People living in slums, in particular, are far behind in achieving development goals and the situation is likely to deteriorate in the coming years due to the long-term presence of the pandemic.² Finding out various typologies of slums in Dhaka, this paper attempts to examine the current scenario of SDG 11. By conducting semi-structured interviews with slum households in three different slums in Dhaka and expert opinions with the various stakeholders, numerous barriers to SDG application have been identified in informal settlements. Drawing on the field level observation, the paper concludes SDG 11 is not possible to attain by 2030 unless greater attention is paid to the disadvantaged group in societies such as slum dwellers. Based on the findings, the paper suggests that Bangladesh should focus more on improving the living standard of the urban poor by increasing various initiatives ranging from improving the environment to health. In order to accomplish this, a holistic approach is required for engaging local and city actors from top to bottom level.

Keywords: Covid-19, Informal Settlement, SDGs, Urban Poor, Dhaka

1. Introduction

Like many other developing countries, Bangladesh has relentlessly provided efforts to achieve Millennium Development Goals (MDGs) within the given time frames. It has already achieved certain goals of MDGs (e.g., reducing infant and child mortality, gender parity in primary and secondary level education) set nearly 20 years

Razia Sultana, PhD is Research Fellow at Bangladesh Institute of International and Strategic Studies (BIISS), Dhaka. Her email address is: razia.biiss@gmail.com

© Bangladesh Institute of International and Strategic Studies (BIISS), 2021.

¹ Tomoyuki Shibata, James L Wilson, Lindsey M Watson, Ivan V Nikitin, Ansariadi, Ruslan La Ane and Alimin Maidin, "Life in a Landfill Slum, Children's Health, and the Millennium Development Goals", *Science of The Total Environment*, Vol. 536, 2015, pp. 408-418.

ago.³ Despite these positive outcomes, the country is far behind in achieving some goals related to the sustainability of ‘cities’. After 15 years, the country has again attempted to ensure progress by signing 17 Sustainable Development Goals (SDGs) with the world leaders in 2015. Among all these goals, Bangladesh is unremittingly striving for attaining SDG 11 that seeks to realize inclusive cities for all. In effect, SDG 11 is remarked as a blueprint in the countries of the Global South where many people live in informal settlements. In this goal, the explicit focus is: ‘to make cities and human settlements inclusive, safe, resilient and sustainable’.⁴

SDG 11 is the reflection of the equitable development of cities for every citizen. Unfortunately, in the countries of Global South (like Bangladesh), inequality is prevalent and mostly consolidated in slums of big cities.⁵ In Dhaka—the capital of Bangladesh—informal settlement is an acute problem since a certain portion of people live in a filthy environment with minimal or no public provisions. The stipulating idea is, when a city is developed, it indicates that all urban dwellers will equitably receive resources, facilities, and services regardless of background and social status.⁶ Unfortunately, urban spaces along with urban services are differently allocated for the poor living in cities.⁷ As cities grow rapidly, issues of justice confront city dwellers in a daily manner. The important features of the urbanization process are exclusion, discrimination, and inequality perceived mostly in cities’ slums in Bangladesh.⁸

³ Ministry of Environment and Forests, *Rio + 20: National Report on Sustainable Development*, Dhaka: Ministry of Environment and Forests, 2012.

⁴ SDG 11 is made up of 10 targets and 15 indicators which key aspects are to address safe and affordable housing and transport (SDGs 11.1 and 11.2), inclusive and sustainable urbanization (SDG 11.3), reduce adverse impacts of natural calamities (SDG 11.5) environmental protection and green spaces (SDGs 11.6 and 11.7) and other targets related to specific planning. For details, see, Jacqueline M Kloppe and Danielle LPetrettab, “The Urban Sustainable Development Goal: Indicators, Complexity and the Politics of Measuring Cities”, *Cities*, Vol. 63, 2017, pp. 92-97; “SDG 11 Sustainable cities and communities”, available at <https://opendevloppementmekong.net/topics/sdg11-sustainable-cities-and-communities/>, accessed on 17 October 2020.

⁵ Debraj Roy, Michael Harold Lees, Karin Pfeffer and Peter M.A. Sloom, “Spatial Segregation, Inequality, and Opportunity Bias in the Slums of Bengaluru”, *Cities*, Vol. 74, 2018, pp. 269-276.

⁶ Nadja Kabisch and Dagmar Haase, “Green Justice or Just Green? Provision of Urban Green Spaces in Berlin, Germany”, *Landscape and Urban Planning*, Vol. 122, 2014, pp. 129-139; L. O’Brien, R. De Vreese, M. Kern, T. Sievänen, B. Stojanova and E. Atmiş, “Cultural Ecosystem Benefits of Urban and Peri-urban Green Infrastructure across Different European countries”, *Urban Forestry & Urban Greening*, Vol. 24, 2017, pp. 236-248.

⁷ Mitali Parvin and Anwara Begum, “Organic Solid Waste Management and the Urban Poor in Dhaka City”, *International Journal of Waste Resources*, Vol. 8, No. 1, 2017, pp. 1-9.

⁸ Stuart James Cameron, “Urban Inequality, Social Exclusion and Schooling in Dhaka, Bangladesh”, *Journal of Comparative and International Education*, Vol. 47, No. 4, 2017, pp. 580-597; Iftekhar Ahmed, “Factors in Building Resilience in Urban Slums of Dhaka, Bangladesh”, *Procedia Economics and Finance*, Vol. 18, 2014, pp. 745-753.

It is worth noting that Dhaka is one of the fastest growing megacities in the world in terms of population and average annual growth. Dhaka contains one-third of the total urban population and alarmingly receives 300-400 thousand new migrants every year.⁹ Consequently, it is growing as an unplanned and environmentally vulnerable city where heavy floods, drainage, congestion, and gradual heat stress are observed as common features. Deterioration of air quality, contamination of surface water, inadequate management of solid waste and sewage, problems of drainage congestion, waterlogging, and unchecked expansion of squatter settlements are the key environmental concerns for slums of the Dhaka city.

As far as the environmental sustainability of Dhaka is concerned, it is observed that informal settlements are not properly included in urban planning and institutional arrangements which are the key issues in the SDG agenda.¹⁰ There is much work on both environment and climate change adaptation in Bangladesh's rural areas (e.g., Sunamganj, Kutubdia and Munshiganj).¹¹ Although poverty alleviation is a key issue in the SDGs, regrettably, in policies, less attention is paid to urban slum people's plight, despite they face many challenges daily.¹² Dhaka is expanding in terms of population and average annual growth, but systemic responses to pending environmental vulnerabilities are not catching up. Dhaka's slums face urban planning shortfall; thus, preparation is urgent.

Observing this significant research gap, the paper assesses the situation of SDG 11 highlighting certain conditions in urban slum areas to make households more resilient to various urban hazards in this unprecedented time. The research is guided by both top-down policymaking and bottom-up action in a multi-level framework. Based on the secondary sources and primary data from three different slums and expert opinions of various stakeholders, the paper deals with three primary questions: what are the current scenarios of slums in Dhaka? What are the major hurdles to attain SDG 11? What specific policy measures can assure that development is inclusive in current and post-pandemic? It also explores the opportunities and constraints of this framework in Dhaka, Bangladesh.

⁹ Nicola Banks, Manoj Roy and David Hulme, "Neglecting the Urban Poor in Bangladesh: Research, Policy and Action in the Context of Climate Change", *Environment and Urbanization*, Vol. 23, No. 2, 2011, pp. 487-502.

¹⁰ Huraera Jabeen and Simon Guy, "Fluid Engagements: Responding to the Co-evolution of Poverty and Climate Change in Dhaka, Bangladesh", *Habitat International*, Vol. 47, 2015, pp. 307-314.

¹¹ Munshi Khaledur Rahman, Bimal Kanti Paul, Andrew Curtis and Thomas W. Schmidlin, "Linking Coastal Disasters and Migration: A Case Study of Kutubdia Island, Bangladesh", *Professional Geographer*, Vol. 67, No. 2, 2015, pp. 218-228.

¹² Dolf J.H. te Lintelo, Jaideep Gupte and Rajith Lakshman "Wellbeing and Urban Governance: Who Fails, Survives or Thrives in Informal Settlements in Bangladeshi Cities?", *Cities*, Vol. 72, 2018, pp. 391-402.

The paper has seven sections. The first is the introduction. The second section briefly discusses the roadmaps from MDGs to SDGs and provides glimpses of Bangladesh's population, urban poor, and the existing Covid-19 situation. The third section analyzes key concepts relating to informal settlements, and how they are viewed in Bangladesh. The fourth section touches upon the methods while fifth section highlights the key findings. The sixth section provides suggestions to overcome barriers to the successful adoption of SDG 11. Finally, seventh section draws a conclusion.

2. Context/Literature Review

2.1 *From MDGs to SDGs: A Road Map for Bangladesh*

Since the formation of MDGs in 2000, the Bangladesh government has taken various economic, political, and institutional attempts to implement the eight major goals by precise time frames. Although worldwide, some goals are condemned for having the reflection of the neo-liberal agenda and top-down process¹³, Bangladesh is persistently giving its efforts to attain certain goals like ending poverty and hunger (MDG 1) by increasing national income and achieving universal education (MDG 2). Bangladesh has so far done remarkable progress in achieving certain goals mostly in ensuring gender parity in primary and secondary education (MDG 3), reducing child and infant mortality rates (MDG 4), and halting some communicable diseases such as HIV/AIDS, malaria, and tuberculosis (MDG 6). Bangladesh is opting for ensuring environmental sustainability (MDG 7). One important endeavour introduced in MDG 7 (target D) is to address cities' slums precisely through target 11, which fundamental goal is to improve the lives of minimum 100 million slum communities by 2020. Overall, the target appears ambitious from a quantitative dimension and the issues of 'cities without slum' are in question due to the lack of showing the full picture of urban development.¹⁴ Similar to other countries, this has also reflected in Bangladesh as research shows that currently, the country is far behind in addressing urban poverty because of paying more attention to rural poverty.¹⁵ In this regard, the 2016-17 Household Income and Expenditure Survey (HIES) revealed that the poverty rate declined faster in rural areas (35 to 26 per cent) while urban poverty decreased from 21 per cent to only 19 per cent.¹⁶

¹³ Razia Sultana, "Millennium Development Goals (MDGs): An Evaluation", *BISS Journal*, Vol. 30, No. 3, 2009, pp. 1-26.

¹⁴ Paula Meth, "Millennium Development Goals and Urban Informal Settlements: Unintended Consequences", *International Development Planning Review*, Vol. 35, No. 1, 2013, pp. v-xiii.

¹⁵ Nicola Banks et al., op. cit.

¹⁶ BBS, *Household Income and Expenditure Survey 2016-2017*, Dhaka: Ministry of Planning, Government of the People's Republic of Bangladesh, 2017.

After the MDGs, the first urban SDGs are set as a part of the post-2015 United Nations Sustainable Development Agenda. As mentioned above, on 25 September 2015, the UN member states pledged to adopt a total of 17 SDGs with 169 targets addressing multiple issues linking with poverty, environment and other issues for achieving sustainable development. Bangladesh adheres to the principles of crucial SDGs such as ending poverty and hunger (SDG 1 and 2), ensuring healthy lives and wellbeing (SDG 3), quality education (SDG 4), gender equality (SDG 5), and clean water and sanitation (SDG 6). Already Bangladesh government is extensively working on some SDGs and the positive outcomes are perceived mostly in SDG 7 (affordable and clean energy), SDG 10 (reduced inequality) and SDG 13 (climate action). Alongside this, the country has enacted more than 200 laws and by-laws to tackle environment-related problems and challenges.¹⁷

As far as SDG 11 is concerned, Bangladesh is currently focusing on certain issues such as access to improve water source for all urban dwellers and increase productivity, investment and employment. Notably, Bangladesh's development targets are also to achieve other goals like inclusive economic growth and creating employment opportunity for every citizen (SDG 8), building resilient infrastructure (SDG 9) and reducing inequality (SDG 10) that directly or indirectly will help to attain SDG 11.

Linking with SDG 11, the New Urban Agenda of the Habitat III Conference is crucial for the countries of the Global South to call for 'safe, resilient, sustainable and inclusive cities'.¹⁸ One of the important components of cities' sustainable development is preserving green spaces and water bodies. As per Article 18 A, the Bangladesh government is committed to preserving forests, biodiversity, and wetland conservation. Accordingly, countrywide, the government is trying to promote numerous awareness programmes that will bring benefits of the eco-system. For instance, to popularize and encourage urban greening, the government propagates the slogan - 'plant a tree and save the environment'.¹⁹ In May 2016, Dhaka Municipal Corporation (South) announced that the landlords who plant gardens on their rooftop, balcony, and in front of vacant places will be exempted from 10 per cent holding tax.²⁰ In 2019 World Environment Day, Bangladesh Prime Minister urged the city dwellers to plant at least three saplings to reduce air pollution in the city.²¹

¹⁷ The Food and Agriculture Organization of the United Nations (FAO), *Bangladesh Environment, Forestry and Climate Change Country Investment Plan*, Dhaka: FAO, 2016.

¹⁸ UN-Habitat III, *New Urban Agenda*, Ecuador: United Nations, 2017.

¹⁹ Shukla Rani Basaka, Anil Chandra Basak and Mohammed Ataur Rahman, "Impacts of Floods on Forest Trees and Their Coping Strategies in Bangladesh", *Weather and Climate Extremes*, Vol. 7, 2015, pp. 43-48.

²⁰ Nilima Jahan, "Pleasures of Roof Top Gardening", *The Daily Star*, 22 July 2016, available at <https://www.thedailystar.net/star-weekend/pleasures-roof-top-gardening-1257244>, accessed on 16 August 2020.

²¹ "Plant Trees, Save Environment", *The Daily Star*, 27 June 2019, available at <https://www.thedailystar.net/backpage/bangladesh-pm-sheikh-hasina-says-plant-trees-save-environment-1760113>, accessed on 28 July 2020.

Under the 7th Five Year Plan (FY 2016-2020), the government has set SDG targets through articulating Vision 2021 in which citizens have a higher standard of living and better protection from climate change and natural hazards.²² The government has a target of covering trees of 2.84 million hectares by 2021 to maintain ecological balance.²³ Taking into account the missions of the 7th Five Year Plan and Vision 2021, the government has formulated a number of policies such as the National Environment policy (1992), National Forest Policy (1994) and draft Forest Policy (2015), National Environment Management Action Plan (1995), National Wetland Policy (1998), National Land Use Policy (2001), National Biodiversity Assessment and Programme of Action (2020), and so on. Despite enacting acts and policies, ensuring a clean environment in cities is a daunting task due to the presence of a large number of population and informal settlements. Moreover, the current volatile situation caused by Covid-19 has jeopardized the country's positive achievements in poverty reduction and increased the probability of more poor in the extreme poverty line.

2.2 *Population Growth, Urban Poor and Current Covid-19 Crisis: A Brief Overview*

Being a largely ethnically homogenous country, the population of Bangladesh was nearly 158.9 million according to national census data in 2015.²⁴ However, the World Bank report in 2017 numbered 164.9 million that ranked Bangladesh as the 8th most populous country in the world.²⁵ If the pace continues to grow, the projected population of the country will likely grow to 191.6 million in 2031 implying that the country will yield more than 40 million over 15 years, reaching 218.65 million in 2051.²⁶ Although the average growth rate reduced remarkably from 7 per cent in the 1970s to 1.3 per cent in 2016, population density (1,160.6 per sq. km/3,006.0 people per sq. miles) is still alleviated considering the total area (147,570 sq. km/ 56,977 sq. miles) of the country.

As far as the urban population trends are concerned, the total urban population was roughly 36.5 per cent in 2018 as per the UN's estimation. It is rising

²² Jessica Ayers, Saleemul Huq, Helena Wright, Arif M. Faisal and Syed Tanveer Hussain, "Mainstreaming Climate Change Adaptation into Development in Bangladesh", *Climate and Development*, Vol. 6, No. 4, 2014, pp. 293-305; Bangladesh Planning Commission, Ministry of Planning, "Sustainable Development Goals: Bangladesh First Progress Report 2018", Dhaka: Bangladesh Planning Commission, Ministry of Planning, 2018.

²³ FAO, op. cit.

²⁴ BBS, *Bangladesh Statistics 2017*, Dhaka: Ministry of Planning, Bangladesh Bureau of Statistics, 2017.

²⁵ UN, *World Population Prospects: The 2017 Revision*, New York: Department of Economic and Social Affairs Population Division, 2017.

²⁶ BBS, op. cit.

faster considering the rapid increase of population growth with the least urbanization process.²⁷ For instance, since the 1970s, the urban population was only 5 million and gradually it rose to 22.4 million in the 1990s that added nearly 20 million people more within a decade and a half.²⁸ The urban population growth was 4.7 per cent in 1960 while it is growing by 3.2 per cent now.²⁹ In 2014, of the 64 districts, Dhaka received the largest urban population (37 per cent) while combining the total population of the next three largest cities namely Chattogram, Khulna, and Rajshahi.³⁰

Currently, Dhaka's population size is over 10 million, and the growth is expected to double by 2030. In terms of the national growth rate of the population in rural and urban interfaces, the former was higher than urban locations in 2006.³¹ Since 2012, the gap has remarkably reduced due to rapid rural-urban migration. As per the estimation by the United Nations Department of Economic and Social Affairs (UNDESA), the urban population in Dhaka might surpass the rural population by 2030.³² This will result in the continued rise of urban poor who will be forced to live mostly in the city's slums.

In addition, the presence of Covid-19 has brought an adverse impact on the country's economy and enhanced the probability of adding more urban poor in the city. Although in the 2018-2019 fiscal year, the poverty rate was declined to 20.5 per cent, the pandemic increases the rate again up to 29.5 per cent.³³ Since the pandemic has hit the economy hard, it has created enormous pressures on the lives and livelihoods of the urban poor in Dhaka. With the question of saving lives and securing livelihoods, the country is facing now the tremendous dilemma of setting its priority. More precisely, the looming crisis has brought a big blow to the city's poor who relies on the daily wage labour market, garments factories, and other informal sectors.³⁴

Against this periodic shocks, various academics and practitioners indicate a significant decline in Gross Domestic Product (GDP) growth in FY 2020 and its

²⁷ Worldometers, "Bangladesh Population", available at <https://www.worldometers.info/world-population/bangladesh-population/>, accessed on 28 July 2020.

²⁸ H. Z. Rahman, "Urbanization in Bangladesh: Challenges and Prospects", paper presented in the conference on *The First Bangladesh Economist's Forum*, organized by Bangladesh Economist's Forum, Radisson Blu Water Garden Hotel, Dhaka, on 21-22 June 2014.

²⁹ World Bank, "Urban Population Growth", The World Bank Group, 2018.

³⁰ Rahman, op. cit.

³¹ BBS, op. cit.

³² UNDESA, *World Urbanization Prospects: The 2018 Revision*, USA: The Population Division of the Department of Economic and Social Affairs, 2018.

³³ "Covid-19 Impact: National Poverty Rate Rises to 29.5% as of June", *Dhaka Tribune*, 12 August 2020.

³⁴ John Taylor, "How Dhaka's Urban Poor are Dealing with COVID-19", *International Institute for Environment and Development*, available at <https://www.iied.org/>, accessed on 25 July 2020.

long-term financial ramifications. For instance, the Centre for Policy Dialogue (CPD) estimated that the rate of poverty in Bangladesh has lifted to 10 per cent which might increase up to 40 per cent putting the country far behind again.³⁵ In a similar vein, World Bank warns that the pandemic is a serious obstacle for poverty alleviation and around 50 million people of Bangladesh will likely fall into the poverty trap due to the subsequent disruption sourced from economic downturns.³⁶ As such, study of the Bangladesh Institute of Development Studies (BIDS) finds that the 80 per cent and 10 per cent drop of income of the working class in urban and rural areas respectively will add 16.4 million new poor and will drastically increase overall poverty and other collateral damages.³⁷ The study of Sajida Foundation, a value-driven Non-Government Organization (NGO), in this regard reveals that the poor will be more marginalized due to the long term presence of this pandemic.³⁸ Similarly, the recent study of Maiko et al. reveals that due to the presence of social exclusion and inequality, the economically disadvantaged groups especially the slum dwellers have been one of the vulnerable and high-risk groups in this unprecedented situation.³⁹ Table 1 briefly outlines the scenarios of Covid-19 and its impacts on the urban poor.⁴⁰

Table 1: Covid-19 Scenarios in Bangladesh and Its Impacts on the Urban Poor⁴¹

Areas of Vulnerabilities	Vulnerabilities Concerning Covid-19 Impacts
The first case of Covid-19 patient	08 March 2020
Confirmed cases of Covid-19 as of 30 November 2020	462,407
Total number of deaths (up to 30 November 2020)	6,609
People living in poverty	49.43 million
Rise of national poverty rate as of June 2020	29.5 per cent
Most vulnerable groups	Low-income groups
Reasons for vulnerabilities	Job loss, shrinking sources of income, and lack of savings

³⁵ Stephan Uttom, "Covid-19 Fuels Hunger and Poverty in Bangladesh", *UCA News*, available at <https://www.ucanews.com/news/Covid-19-fuels-hunger-and-poverty-in-bangladesh/88343>, accessed on 26 July 2020.

³⁶ Ibid.

³⁷ Rafikul Islam, "COVID-19 Shatters Bangladesh's Dream of Eradicating Poverty", *UNB*, 16 July 2020.

³⁸ Shoshannah Kate Williams and Md Fazlul Hoque, "How Covid-19 Further Marginalized Bangladesh's Urban Poor", *Dhaka Tribune*, 12 July 2020.

³⁹ Maiko Sakamoto, Salma Begum and Tofayel Ahmed, "Vulnerabilities to COVID-19 in Bangladesh and a Reconsideration of Sustainable Development Goals", *Sustainability*, Vol. 12, No. 13, 2020, pp. 1-15.

⁴⁰ Ibid; WHO, "WHO Bangladesh COVID 19 Morbidity and Mortality Weekly Update (MMWU)", available at https://www.who.int/docs/default-source/searo/bangladesh/Covid-19-who-bangladesh-situation-reports/who-Covid-19-update-36-20201102.pdf?sfvrsn=e3f0fc8a_2, accessed on 26 July 2020.

⁴¹ Compiled by the author from different sources.

In this pandemic, slum dwellers are one of the vulnerable groups who are facing economic vulnerabilities as they are mostly involved in Readymade Garment (RMG) and other informal job sectors. Due to shut down of restaurants, tea stalls and other small businesses, many slum dwellers partially or fully lose the sources of income. One study conducted on 5,471 households by the Power and Participation Research Centre (PPRC) and Bangladesh Rural Advancement Committee (BRAC) Institute of Governance and Development revealed that the average income of the urban poor and rural people dropped by 80 per cent and 63 per cent respectively as they were inactive since the outbreak of the pandemic.⁴² Moreover, it was found that temporary and unauthorized status of slum dwellers prevents them to get relief supports provided by the government and other agencies.⁴³ Their unauthorized position always poses the threat of eviction. The loss of jobs and significant sources of income and all other challenges have raised some specific human rights issues (such as access to food and health care coupled with social justice and overall sustainability) which are stipulated in SDGs. Needless to say, the serious setback of economic growth will likely slow down the attainment of SDGs in the coming years. Although SDG 11 solely puts emphasis on the concept of safe cities, the Covid-19 has illuminated the shortcomings of interrelated health infrastructure, food distribution systems, and relevant loopholes of other major sectors. In order to understand the situation intensely, the next section explains the key concepts and ideas in relation to informal settlement and its reflections in Bangladesh.

3. Concepts and Mind Mapping

3.1 *Defining Informal Settlements and its Reflections in Bangladesh*

Worldwide, the informal settlement has been a contentious terminology considering its usage and meanings. The informal settlement is mostly labelled as slum which over the periods is connoted in diverse ways such as squatter settlements, shanty towns, urban informality, and so on depending on the level of poverty and insufficient access to resources. In each region or country, the slum is gradually evolved knowing as distinct names: Favelas (Latin America), Kampung (Southeast Asia), Kibera (Nairobi), Soweto (South Africa), etc. The characteristics of poor residential neighbourhoods differ regardless of space but there are some common social and physical features. The UN-Habitat during the global campaign on 'Cities without Slum' and in a report by the UN Habitat highlighted some key conditions of slums that are widely applicable for all regardless of countries: non-durable structure of shacks, overcrowding areas, lack of access to water and inadequate sanitation

⁴² Maiko Sakamoto, Salma Begum and Tofayel Ahmed, op. cit.

⁴³ "The Shadow of Coronavirus on Bangladesh's Poor", *UNB*, 06 April 2020.

facilities.⁴⁴ McFarlane and Ahmed and Rahaman, for instance, connoted slum as the manifestation of the idea of density and poverty which is ultimately a challenge for the city.⁴⁵ Recently, te Lintelo et al. added few more attributes of squatter areas whereby residents are devoid of tenure security, struggling to have access to basic services, and building houses in geographically vulnerable locations.⁴⁶ Such settlements are primarily built near to public parks, lakes, lagoons, and trash dumping sites on the peripheries of cities.

In the context of Bangladesh, there is no specific clarity of each term (such as slum, the squatter or low-income settlement) in academic literature and some universal characteristics of slums are more or less common. In the Bengali language, all these synonymous words are commonly known as ‘*bastee*’ where the most vulnerable and marginalized people (known as *basteebashees*) reside with poor living environments. In other words, the slum is defined as illegal in Bangladesh since space is developed in a process that does not follow formal apparatus. Bangladesh Bureau of Statistics (BBS) clearly defined the slum as the cluster of compact settlements where five or more households reside in an unhealthy environment on the government and private vacant lands.⁴⁷ BBS census data on floating people and slum specifically mentions some key characteristics of the slum: insecure residential status, poor standard of housing with high density, insufficient public provisions (electricity, gas and water), poor environmental settings (garbage collection, sanitation, and drainage system) and lack of open spaces and greenery areas.⁴⁸

The first unique feature of Bangladesh’s informal settlement mentioned above is the politicized manipulation of the slum population that arises tenure insecurity. Slum households are often characterized by the constant threat of evictions and regulated by the local musclemen known as ‘*mastaans*’ who control the basic public infrastructure in slums.⁴⁹ Despite the lands belong to the government agencies or private owners, *mastaans* play a powerful role relying on political patronage or maintaining a close tie with the local powerful agencies. The

⁴⁴ UN-Habitat, *State of the World's Cities 2010/2011: Bridging the Urban Divide*, London: UN-Habitat, 2008; UN Habitat, *Planning and Design for Sustainable Urban Mobility: Global Report on Human Settlements*, Oxon and New York: Routledge, 2013.

⁴⁵ Colin Mcfarlane, “The Geographies of Urban Density: Topology, Politics and the City”, *Progress in Human Geography*, Vol. 40, No. 5, 2015, pp. 629-648; Saleh Ahmed and Khan Rubayet Rahaman, “Sustainability Challenges and the Spatial Manifestation of Poverty in Megacities of the Global South: Focus on Dhaka Bangladesh”, *Research in Urban Sociology*, Vol. 14, 2014, pp. 143-166.

⁴⁶ Ibid.

⁴⁷ BBS, *Statistical Year Book of Bangladesh*, Dhaka: Statistics and Informatics Division, Bangladesh Bureau of Statistics, 1997.

⁴⁸ BBS, *Census of Slum Areas and Floating Population 2014*, Dhaka: Bangladesh Bureau of Statistics, 2014.

⁴⁹ Iftekhhar Ahmed, op. cit.; Bimal Kanti Paul, “Fear of Eviction: The Case of Slum and Squatter Dwellers in Dhaka, Bangladesh”, *Urban Geography*, Vol. 27, No. 6, 2006, pp. 567-574.

informal structure of exploitation is common and helps to maintain the status quo in Dhaka's slums.

The second attribute is poor housing coupled with limited space. Housing in slums can be characterized by flimsy, dilapidated, and densely populated in which 95 per cent of the shack is less than 14 sqm.⁵⁰ The third key feature is the non-existence of basic public provisions: slum households are subject to inadequate water supply, improper sanitation, and other facilities. Slum dwellers are often exposed to some key natural and manmade urban hazards because of poor environmental settings. Natural factors such as flooding and waterlogging bring adverse impacts on slum communities' lives due to the poor drainage system. Urban heat is acute due to the lack of open space and poor infrastructure. Fire is a common man-made disaster that is often believed to be ignited intentionally by various vested groups.⁵¹ Taking all the key features into account, the slum, in brief, can be termed as a densely populated area categorized by poor quality housing, reduced public facilities, and hazardous environmental conditions.

Despite having all the negative features, urban slums are the crude reality for Bangladesh's cities. The government is always committed to meet the MDGs of reducing the urban population living in slums and their significant improvement.⁵² Nevertheless, the unprecedented urban growth along with poverty issues has created slums in prime locations of cities in Bangladesh.⁵³ Usually, slums are built in low-lying and flood-prone areas since these places are less expensive and non-permanent. It is observed that the growth of urban slums is much faster than the process of urbanization. After gaining independence, urban slums started to grow gradually in cities due to the economic losses during the Liberation War in 1971 accompanied by a number of natural disasters in the 1970s. In the 2005 census and mapping, total slums in Bangladesh numbered 9,048 considering the six major cities and the largest number was received by Dhaka (4,966/ 35 per cent of total Dhaka's population).⁵⁴ The UN-Habitat report estimated, nearly 4 million people that comprised of 30 per cent of Dhaka's population lived in a similar condition.⁵⁵ However, in the 2014 BBS Survey, the number of slum dwellers was enumerated very less—only 2.23 million, of which 1.06 million people lived in slums in the Dhaka division.⁵⁶ Whereas, another

⁵⁰ Iftekhar Ahmed, op. cit.

⁵¹ Ibid.

⁵² BBS, op. cit.

⁵³ Sayeda Saika Binte Alam and Mihoko Matsuyuki, "Applicability of Land Sharing Scheme to Korail Slum, Dhaka, Bangladesh," *Urban and Regional Planning Review*, Vol. 4, pp. 151-167.

⁵⁴ Saleh Ahmed and Khan Rubayet Rahaman, op. cit.

⁵⁵ UN-Habitat, *State of Asian Cities 2010/11*, Fukuoka: UN-Habitat, 2010.

⁵⁶ Ibid.

study shows the total number of slums is 3300 solely in Dhaka that houses more than 6 million people.⁵⁷

For more than 20 years, the population in slums has been increased by nearly 60.43 per cent and the reasons for growing slums in cities are manifolds.⁵⁸ One of the prime reasons is river erosion, floods, and other natural calamities. The exposure to the impacts of climate change and natural calamities is related to non-climatic factors such as the rapid pace of unplanned urbanization, population growth, poverty, inequality, and lack of access to natural resources. These non-climatic factors are associated with worse damage and greater socio-economic vulnerabilities for individuals and are also a potential source of collective vulnerabilities.⁵⁹ In slum areas, people are more exposed to the risk of natural hazards as they are less prepared and cannot deploy coping mechanisms afterward, and often lack the personal resources and financial means to do so. However, the next sub-section frames the ideas to explore greater cooperation that can be enhanced at various levels to materialize SDG 11.

3.2 *Framing the Ideas*

The SDGs rest on MDGs and are guided by the UN's human rights framework which is broadly comprised of a set of legal, political, and moral principles. Partially or fully, SDGs reflect on those principles and do envision for a better and more just world. To achieve the targets of SDGs, a greater level of cooperation from the governments and other stakeholders is required.⁶⁰ Taking into account this point, the paper offers a multi-level framework to ensure equity and justice for the urban poor in Bangladesh. Primality, the conceptual framework of this paper is motivated by three observations: First, the success of SDG 11 depends on the inclusion of voice and willingness of slum households. Second, the roles of intermediary actors, e.g., NGOs are important to change the lives of slum dwellers and create opportunities in their everyday lives. Third, urban governance is important to understate SDG 11 in the slum since it shapes power, policy, and politics. Therefore, creating a conducive environment for the slum dwellers is a matter of intervention from all the concerned authorities at different levels.

Based on the above observations, the paper frames and includes stakeholders from top-down to bottom-up for a number of reasons. First, urban critics like Bose,

⁵⁷ Md. Kamruzzaman, "Coronavirus: Poor Income Drops 80 per cent in Bangladesh", available at <https://www.aa.com.tr/en/asia-pacific/coronavirus-poor-income-drops-80-in-bangladesh/1808837>, accessed on 01 September 2020.

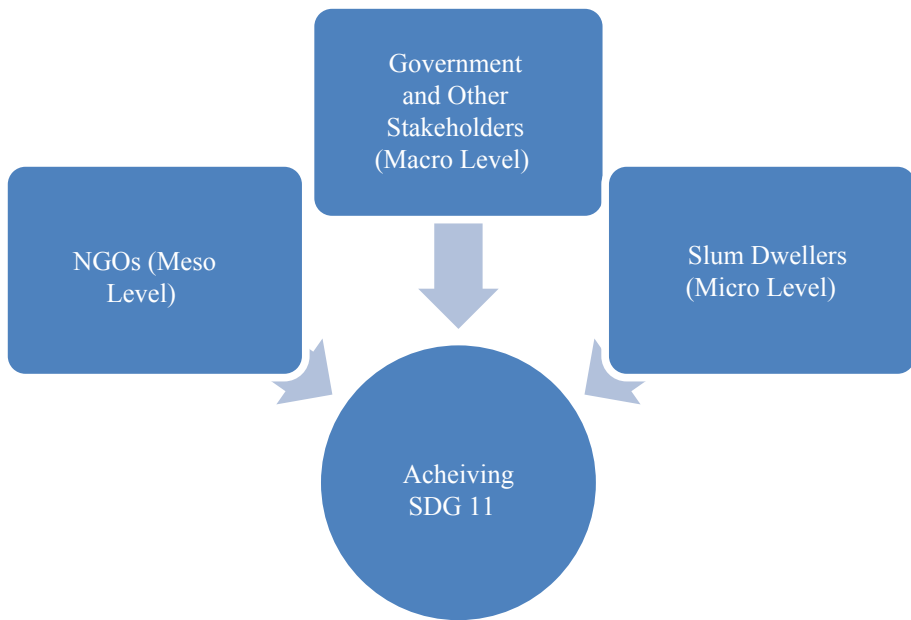
⁵⁸ "Number of Slum Dwellers in Bangladesh Increases by 60.43 Percent in 17 Years", *bdnews24.com*, 29 June 2015.

⁵⁹ Huraera Jabeen and Simon Guy, op. cit.

⁶⁰ Janet Fleetwood, "Social Justice, Food Loss, and the Sustainable Development Goals in the Era of COVID-19", *Sustainability*, Vol. 12, No. 12, 2020, pp. 1-9.

Cook, and Habiba and Shaw questioned the viability of development projects that just have a top-down approach even when the planners aim to include local communities.⁶¹ Conversely, Lebel's studies on the Asia-Pacific regions demonstrated that bottom-up approaches are more applicable to address local priorities.⁶² Nalau et al., on the contrary, noted that adaptation to any vulnerable situation needs to be conceived as a 'shared responsibility' in which all the levels of government function equally.⁶³ In this context, the overarching conceptual framework in this paper (Figure 1) suggests multiple stakeholders to build bridges through knowledge sharing with local people in the decision-making process at all scales.

Figure 1: A Conceptual Framework to Achieve SDG 11⁶⁴



⁶¹ Pablo Shiladitya Bose, "Vulnerabilities and Displacements: Adaptation and Mitigation to Climate Change as a New Development Mantra", *Area*, Vol. 48, No. 2, 2015, pp. 1-8; Brian R. Cook, "Controversy in Bangladesh: What Sort of Knowledge for What Sort of Flood Management?", *Geography*, Vol. 93, No. 7, 2008, pp. 114-118; Umma Habiba, Rajib Shaw and Md. Anwarul Abedin, "Community-Based Disaster Risk Reduction Approaches in Bangladesh" in Rajib Shaw, Fuad Mallick and Aminul Islam (eds.), *Disaster Risk Approaches in Bangladesh*, Kyoto: Springer, 2015.

⁶² Louis Lebel, "Local Knowledge and Adaptation to Climate Change in Natural Resource-based Societies of the Asia-Pacific", *Mitigation and Adaptation Strategies for Global Change*, Vol. 18, No. 7, 2013, pp. 1057-1076.

⁶³ Johanna Nalau Benjamin, L. Preston and Megan C. Maloney, "Is Adaptation a Local Responsibility?", *Environmental Science and Policy*, Vol. 48, 2015, pp. 89-98.

⁶⁴ Compiled by the author.

Considering the linkage of existing approaches in managing urban sustainability, the conceptual framework discloses an alternative approach in which the knowledge of the stakeholders and local communities can be pieced together for making an inclusive system of governance. Each group has crucial contributions to find out shared solutions in case of sustainability in slums. This trickle-down of information process from top to bottom has greater implications for the successful implementation of SDG 11 regarding sustainable cities and communities.

4. Methods

In order to address the key questions of the paper, the data collection process is divided into three phases. It has used some of the techniques of qualitative research such as semi-structured interviews and observations.

The study involved two major periods of fieldwork in 2016-2017 and 2017-2018 for three months in each consecutive year. In phase one, 25 slum households were selected to understand their everyday practices and get to know their own perspectives about basic facilities. For interviews, three slums in Dhaka were selected from distinct locations: Korail slum, Mohakhali, Manda slum, Kamalapur, and Rayer Bazar slum, Mohammadpur. These slums purposefully were selected to get an overall view of slums in private and public lands. Korail slum—the biggest slum in Dhaka—covers nearly 90 acres of occupied land which is developed illegally in the government-owned land.⁶⁵ Manda slum, on the contrary, is enlarged in private land owned by influential local people. Rayer Bazar slum was chosen to assess the vulnerabilities of slum households due to environmental pollution emanating from tannery waste.

In phase two, NGOs working at the grass-root levels were selected for data collection. Interviews of these groups were carried out alongside the slum dwellers during both field trips 2016-2017 and 2017-2018. NGOs directly involved in slum upgrading initiatives were considered as ideal for data collection to get a grass-roots level perspective on SDGs. Five relevant officials from the NGOs working on urban hazards and basic services, e.g., BRAC, Action Aid, Bangladesh, Bangladesh Paribesh Andolon (BAPA), Manabik Shahajya Sangstha (MSS) and Concern Bangladesh, were interviewed. In phase three, five stakeholders including two government officials from Rajdhani Unnayan Karttripakkha (RAJUK) and Dhaka City Corporations, one urban planner from Bangladesh University of Engineering and Technology (BUET), and two academics from Centre for Urban Studies and

⁶⁵ Neelopal Adri and David Simon, “A Tale of Two Groups: Focusing on the Differential Vulnerability of “Climate-Induced” and “Non-climate-induced” Migrants in Dhaka City”, *Climate and Development*, Vol. 10, No. 4, 2018, pp. 321-336.

Dhaka University were selected at the top-down level for interviews. Experts were targeted to see how they influence adaptation decisions from a top-down perspective. For each stakeholder, a checklist consisted of 10-15 questions was designed for approximately one hour. During the interview, findings from the slum households were discussed to get deeper insights from them towards a sustainable city and community.

5. Typologies of Slums and Some Reflections on the Application of SDG 11

The universal concept or typology of squatter settlement does not fully match in Bangladesh's context. From the field sites, two types of slums, e.g., developed slum and underdeveloped slum are observed in Bangladesh that is not captured officially by any agency of the country. Based on the access to facilities and availability of basic services, development challenges vary across the slums.

As far as developed slums in Bangladesh are concerned, it is observed that assets, income, and other socio-economic spectra of slum households are comparatively better off in relation to other types of slums due to NGOs' presence. At least slum dwellers are able to access electricity, gas, and water which are primarily controlled by the local gangs. However, slum dwellers do not have formal land tenure rights and the musclemen have an influential role in regulating buying and selling of land. For instance, Korail is an example of a developed slum where shacks are set up overnight but land grabbers have been living for ages.

Unlike developed slums, underdeveloped slums do not have any strong structure of shacks (*Jhupri*). Moreover, such kinds of shacks lack adequate infrastructure and public arrangements. For instance, access to the regular supply of water is a challenge. Consequently, as an alternative, slum dwellers usually set up tube wells or collect water from the nearby water bodies. Similar to the example of developed slums, local gangs or *mastaans* have an important role to ensure public services in illegal ways. Usually, the underdeveloped slums are located in the low-lying areas characterized by flash floods and where water becomes logged for a minimum of 3-6 months. Despite facing waterlogging for a certain period of time, slum households usually do not leave their shacks being afraid of high rent in new destinations and due to verbal commitments and lease terms with landlords. The slums located in Khilgaon and Meradia low lying areas and Manda and Rayer Bazar slums are examples of such kind.

Besides, two different living arrangements are known as squatter and pavement dwellings in major cities. However, less theoretical differences between these two arrangements are visible. According to a scholarly interpretation, the

squatter is explained as a dwelling place where people reside without the consent of the owner and usually stay for more than a year.⁶⁶ In the Bangladesh context, the squatter has no permanent structure, e.g., no street grid or house number, commonly found in many roadsides of Dhaka. Besides footpaths, railway track, public parks, and other vacant spaces are used to make squatter where there is no access to safe running water, sewage network, garbage removal, and drainage system. Despite disconnection to city services, many people have been living in those places for quite a long time.

Among these types of living arrangements, the conditions of pavement dwellings (*potho-bosti*) are the worst form of shelters taking into account the issues of security, infrastructure, and other basic provisions. The poorest and most marginalized people, e.g., scavenger, beggar, daily waged labour, who do not have a permanent setting and face a high level of poverty impel to live in open public spaces. They are quite levelled by different names such as ‘homeless’, ‘floating person’, ‘the destitute’, or ‘extreme poor’.⁶⁷ In most cases, households reside in such a temporary arrangement can be erected and re-erected at any time. They do not avail of other basic services including electricity, gas, and sanitation.

Thus, identifying the existing situations of slums in Dhaka city, one crucial question can be pondered: can the city be called safe, inclusive, resilient, and sustainable for the urban poor? Overall, does Dhaka represent a city which is sustainable? Is the country ready to materialize SDG 11? From the above discussion, it can be argued that managing the four key criteria articulated in SDG 11 is a challenge for the policymakers since slums in cities in Bangladesh can be characterized by exclusion, inequality, and poor environmental conditions. Lack of basic services in these types of dwellings raises questions of significant policy concerns. From the interviews of intermediary actors, it is found that NGOs and other private organization do not feel the urge to invest in projects relating to basic services due to the constant fear of eviction. Quite often the event of eviction generates an immense humanitarian crisis coupled with violation of human rights.⁶⁸ After realizing the existing situations, the next section deals with the question of how to make the cities sustainable, while addressing this disadvantaged group particularly.

⁶⁶ Alexander Vasudevan, “The Makeshift City: Towards a Global Geography of Squatting”, *Progress in Human Geography*, Vol. 39, No. 3, 2014, pp. 338-359.

⁶⁷ David Glenn Jackman, “Are ‘the Destitute’ Destitute? Understanding Micro-inequalities Through the Concept of Defiled Surpluses”, *Environment and Urbanization*, Vol. 29, No. 1, 2016, pp. 251-266.

⁶⁸ Mohammad Abdul Mohit, “Bastee Settlements of Dhaka City, Bangladesh: A Review of Policy Approaches and Challenges Ahead”, *Procedia - Social and Behavioral Sciences*, Vol. 36, 2012, pp. 611-622.

6. Overcoming Barriers to Adoption of SDG 11: Need an Integrated Approach

The government has envisioned turning Bangladesh into a middle-income country by 2021 and a developed country by 2041. During this interim period, Bangladesh is committed to achieving SDGs by 2030 and the government has only 10 years in hand to materialize the 2030 promise. World Health Organisation (WHO) declared that the Covid-19 pandemic has already derailed SDGs' progress.⁶⁹ From Bangladesh's side, the government prepared Voluntary National Reviews (VNR) however, all this now will likely halt due to unprecedented situations sourced from coronavirus.⁷⁰ Undeniably, the urban poor who live in poor living arrangements are one of the engines of the country's economy. Many poor including slum dwellers work in low-paid sectors (such as rickshaw pulling, housekeeping, driving, and so on) in order to serve the elite groups of society. The nation also utilizes them in substantial industrial investments especially in the RMG sector for its economic growth. Taking all these points into account, the next question is: what can be the probable way out to revamp SDG 11 after this hiatus period? The following sub-sections offer three levels of cooperation (macro, meso, and micro levels) for attaining SDG 11 by 2030 through a system of inclusive governance.

6.1 Macro Level

From the field data as well as reviewing the literature, it is apparent that achieving SDG 11 is linked with the planned urbanization process and the government has a substantial role in this regard. Observing Dhaka's situation, it can be argued that the flow of migration of people in the city is a natural phenomenon and it is difficult to halt the movement. People mostly migrate from rural areas due to poverty, river erosion, flood, or other kinds of catastrophic events. After migration in Dhaka, their first resort is managing a shack in the slum. Although slum households are illegally residing in the lands of the government, they are not the illegal citizen of the country. Therefore, it is time to include slum dwellers in the city planning. This will help the government to execute the national development plans equally and maximize resource utilization. To make a sustainable city, recognizing slum dwellers in policies and planning is crucial and this is also echoed by various experts interviewed. Both academics and practitioners, in this respect, opined that the experience of Covid-19 can be an entry point to reassess all the policies.⁷¹

⁶⁹ Jacqui Thornton, "Covid-19 Pandemic has Derailed Progress on Sustainable Development Goals, Says WHO", available at <https://www.bmj.com/content/369/bmj.m1969>, accessed on 08 August 2020.

⁷⁰ General Economics Division (GED), *Voluntary National Reviews (VNR) 2017: Eradicating Poverty and Promoting Prosperity in a Changing World*, Dhaka: Planning Commission, 2017.

⁷¹ Abdullah Shibli, "Sustainable Development Goals: What to Salvage from Covid-19", *The Daily Star*, 20 May 2020.

Connecting this point, academics like McFarlane and Desai viewed legal and policy frameworks as the ‘source of entitlement’ to ensure proper services for slum dwellers.⁷² Furthermore, the discussions of McFarlane, Vasudevan, and Roy et al., illustrated that inclusion and recognition of marginalized people are the core ideas to enhance cities’ social and ecological capacities.⁷³

Evidently, the government is facing enormous challenges in the present time to handle various complex issues perceived in slums. For instance, land insecurity coupled with illegal status is a major concern for making a sustainable environment in slums. The government, therefore, can think of certain ventures which can improve the current situation. Examples include community land purchasing and sharing or leasing for a certain period. Taking into account the point of eviction, specific housing policies have been another core issue for solving this problem. What is required more from the government side is a proactive urban planning policy to make the place for slum dwellers better and environmentally sustainable in the future.

6.2 *Meso Level*

Similar to other city dwellers, equitable provision of physical infrastructure for slum residents is a prerequisite for creating a sustainable environment in cities. The overall environment of slums can be enhanced through the improved health system, proper waste management, better footpath and drainage system, safe water and legal gas supply. These all will indirectly help to create a positive environment for attaining SDG 11. In this regard, NGOs can work as a catalyst with the government. If the government makes specific policies and NGOs cooperate to implement, then slum dwellers will have a better life. Islam identified the significant role of the intermediary actors in supplementing government efforts for development programmes.⁷⁴ With the help of niche actors, education sectors can largely be possible to improve in the slum.

Drawing from interviews with the local agencies it is evident that the government’s role is the focal point for local agencies to boost their development activities. It is revealed that NGOs can play a vital role to execute those policies into action. For instance, NGOs can come up with various awareness programmes to change the behaviour, practices, and lifestyles of slum households. Such a sentiment

⁷² Colin McFarlane and Renu Desai, “Sites of Entitlement: Claim, Negotiation and Struggle in Mumbai”, *Environment and Urbanization*, Vol. 27, No. 2, 2015, p. 441.

⁷³ Colin McFarlane, “The Entrepreneurial Slum: Civil Society, Mobility and the Co-production of Urban Development”, *Urban Studies*, Vol. 49, No. 13, 2012, pp. 2795-2816; Ibid; Debraj Roy et al., op. cit.

⁷⁴ M. Rezaul Islam, “Non-governmental Organizations and Community Development in Bangladesh”, *International Social Work*, Vol. 60, No. 2, 2017, pp. 479-493.

was also reinforced by BAPA General Secretary. He stated, “If the government stands beside us and slum dwellers cooperate, it is possible”. Comments from NGO workers substantiate the idea that the government’s role is inevitable to enhance their activities in slums.

6.3 *Micro Level*

The field data also revealed that slum dwellers in Dhaka have different socio-cultural and environmental settings. As people come from heterogeneous backgrounds, it is a challenge to meet their needs and expectations. One crucial point is, unlike the cities (Berlin, Hague, and Sydney) of the developed countries, the concept of feeling hood over cities is not that strong in Bangladesh and the Global South in general. It is undeniable that slum dwellers are living in an urban place with a rural mindset and they are not aware of city rules and regulations. It is also evident that slum dwellers are making shacks without keeping space destroying water bodies and green spaces. They do not know that the park or street trees are required for increasing the resilience of the city. This grey area needs to be addressed through awareness programmes and NGOs can have a significant role in his regard. To increase the resilience of these vulnerable communities, a community-owned approach needs to be promoted. Creamer et al., for instance, showed this grassroots-led approach through education, training, and awareness building is always a success.⁷⁵ During the interviews, some NGOs also indicated that cooperation from slum dwellers is required to change the scenery of slums. Later on, this participatory approach will work in the long run to enhance their resilience.

7. **Conclusion**

A decent slum environment is a demand of the 21st century since significant people are living in informal settlements in cities. Without their inclusion, a sustainable city is a daunting task. SDG 11 symbolizes the equal opportunity of every citizen irrespective of the rich and poor. In order to ensure this, long term planning, the partnership between NGOs and public sectors, and meaningful participation of the community are important. Dhaka is at this crucial juncture with more people are taking shelter at slums due to natural disasters, poverty, and the myriad of other issues. Migration of vulnerable people could mean the creation of more unplanned informal settlements sacrificing the sustainable environment. Hence, successful SDG 11 application is not possible without addressing several interlocking problems

⁷⁵ Emily Creamer, Simon Allen and Claire Haggett, “Incomers’ Leading ‘Community-led’ Sustainability Initiatives: A Contradiction in Terms?”, *Environment and Planning C: Politics and Space*, Vol. 37, No. 5, 2018, pp. 1-9.

related to policy, basic provisions, legal, and other urban issues. The current pandemic in 100 years gives a lesson that ensuring a better environment of the city requires concerted and coordinated efforts of all stakeholders. Otherwise, an equitable city is a far cry from Dhaka and other cities in Bangladesh and the presence of long-term unusual situation might jeopardize the smooth attainment of SDG 11 in the coming years.