GEF7 TECHNICAL GUIDANCE NOTE ON SUSTAINABLE URBAN SOLUTIONS

1. Background

With the rapidly increasing urbanization rate in the global context, cities began to become a primary living space for humans that have a significant influence on the natural environment. Till 2015, more than half of the world's population has been living in urban areas and the figure is estimated to exceed 70 per cent by 2050. There is a shift of human's residing place and transformation of the world economic base and social structure while previously the majority of populations lived and worked in rural areas.[1] The countries in the North and South American regions and part of the European region maintain the highest percentage of urbanization rate (> 74.7%). Then the percentage of urbanization decreases from Asian countries to African countries.[2] Figure 1 presents the world population growth trend and Figure 2 illustrates different levels of urbanization in different parts of the world. Over the next few decades, more than 95 percent of the world's urban expansion will take place in the developing world. Such urbanization is often short-sighted and focuses on stop gap measures in the name of rapid economic development rather than on creating planned, sustainable, and efficient urban spaces.

Cities can provide many socioeconomic benefits. By concentrating people, investment and resources, cities heighten the possibilities for economic development, innovation and social interaction.[3] More specifically, cities also make it possible to lower unit costs so as to provide public services such as water and sanitation, health care, education, electricity, emergency services and public recreational areas.[4] However, this requires a functioning city government able both to ensure that such benefits are realized, and to adopt a sustainable framework that encourages the city's growth within ecological limits. Along these lines, cities also face challenges that threaten their efforts to achieve sustainability, for example, through improvement of access to, and efficiency in the use of, public services, as well as reduction of their ecological footprint and financial fragility, and the building of resilience against the adverse impact of natural hazards.

It should be noted that all environmental challenges and issues related GEF focal areas are manifested in urban environment. Some key issues of rapid urbanization are social and economic inequality, urban energy consumption, and climate resilience, which affect the urban poor population predominantly. Currently, 883 million people live in slums, predominantly in Eastern and South-Eastern Asia. Even though the world's cities occupy just 3 percent of the earth's land, they account for 60-80 per cent of energy consumption and 75 per cent of the carbon emissions. Climate resilience: Emissions are a significant driver of climate change, which in turn impacts cities with unpredictable weather patterns such as storms,

[1] DES, U. (2013). World economic and social survey 2013: sustainable development challenges. *United Nations, Department of Economic and Social Affairs, New York*. https://sustainabledevelopment.un.org/content/documents/2843WESS2013.pdf

hurricanes, floods (especially for coastal cities), desertification of surrounding suburban and rural regions, increasing temperatures, food insecurity, pollution-based smog, and so on.

Figure 1. Trend of Global Urbanization Rate (1700-2050)

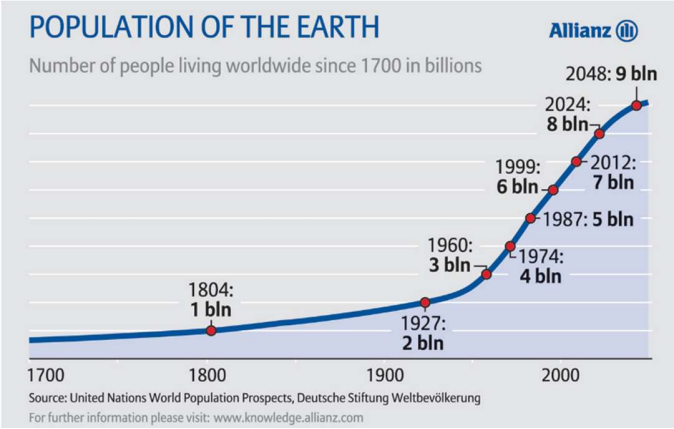
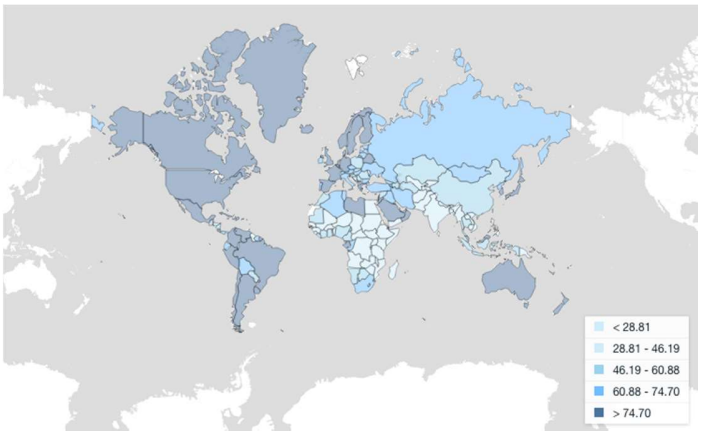


Figure 2. Global Urbanization Distribution (2015)[2]



Cities can be hotspots of extreme deprivation and environmental degradation especially where the bulk of poor will be located with potentially serious impacts from environmental hazards. This calls for innovative partnerships for sustainable urban solutions such as provision of affordable renewable energy, water supply and waste management services that will benefit the urban poor while delivering on the global environmental outcomes. However urban poor and vulnerable communities currently do not have the capacities themselves to adopt such solutions while municipalities and city governments may not be in the position to fully integrate different needs of the population particularly women and girls, youth and persons with disability in their plans due to financial and other constraints. There is a need for public-private partnership promoted by civil society and local communities to provide an integrated package of sustainable urban solutions for energy, waste management and other environmental services. Support is also needed to open space for CSOs for engagement and participation in local decision-making and inform better urban governance and accountability related to urban environmental issues.

2. Objectives and Scope of Strategic Initiative

SGP will pilot activities to target vulnerable people and communities in urban contexts. During the rapid urbanization process, traditional connections, linkages and networks among local communities can be disrupted and lost, making urban environmental governance more challenging. The SGP will promote an integrated management approach to address urbanization challenges from the point of origin (i.e. in rural areas and migration corridors) to the destinations of people's movement during this urbanization transition. The SGP will focus on improving capacities of key service providers at the local municipality level to promote community-driven and integrated solutions to address low-emission and resilient urban development. SGP will demonstrate selected urban solutions addressing several key urban environmental issues – these may include waste and chemicals management; urban wetland and watershed management; energy and transport; ecosystem services and biodiversity conservation. Further, in several countries the SGP will develop and implement a viable public-private partnership approach for low carbon energy access for marginalized urban communities. Programming directions in urban environment cover

[2] http://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?end=2015&start=1960&view=map&year=2015

almost all SGP focal areas, and below are a summary of such linkages between focal area issues and urbanization.

Urban waste management. Increasing along with the urbanization is one of the more unpleasant byproducts of urban living: municipal solid waste. Cities are centers of garbage production, and the amount of garbage they create is increasing even faster than their populations. And for cities in many developing countries, it's rapidly a becoming an environmental and economic catastrophe. Currently, world cities generate about 1.3 billion tonnes of solid waste per year. This volume is expected to increase to 2.2 billion tonnes by 2025. Waste generation rates will more than double over the next twenty years in lower income countries. The programming of urban waste management will follow the guidance note of "Chemicals, waste and mercury management."

Energy, transportation and urbanization. Cities, as aggregates of human activities, require energy in a variety of forms. Cities are responsible for 67% of the total global energy consumption and more than 70% of greenhouse gas emissions and these trends significantly intensify the severity of some of the two great challenges of our time; climate change and energy security. Transportation is an important element of people's daily lives within cities. 15% of global CO2 emissions are attributed to the transport sector. The environmental impact of transport is significant because it is a major user of energy, and burns most of the world's petroleum. This creates air pollution, including nitrous oxides and particulates, and is a significant contributor to global warming through emission of carbon dioxide. Thus sustainable transport system is crucial to the urban sustainable development at all levels. SGP will support renewable energy and sustainable transportation in urban environment.

Urban green space (biodiversity). Parks and other green spaces play a decisive role for the quality of life of the urban dwellers: They provide space for recreation and offer an opportunity to get in touch with plants and natural ground in the open air. Apart from compensating built up density spatially they have an important function in mitigating the ecological impacts of urbanization containing loss of biodiversity and climatic impacts such as the heat island effect. Urban systems are highly dynamic with regard to characteristics like population growth or shrinking and building activities, and therefore often react quickly to social as well as environmental changes. Vegetational development, however, takes place at a modest pace. Due to their life-cycle plantings carried out today may face different living conditions in their future. Similarly people's activities shift along with inter alia changing outdoor temperatures. Anticipatory planning for open green spaces therefore is essential, in particular with regard to the effects of climate change. SGP will support community solutions to conserve urban biodiversity and urban green space or parks.

International waters. Most of the world cities are coastal, riverine or near lakes where water is available and transportation is convenient. Rapid urbanization poses great threat to international waters ecosystems including coastal, ocean and freshwater systems. Domestic waste or sewage are often discharged into rivers, lakes or seas without treatment. Those who suffer the most of these water-related challenges are the urban poor, often living in slum areas or informal settlements following rapid urban growth, in situations lacking many of life's basic necessities: safe drinking water, adequate sanitation services and access to health services, durable housing and secure tenure. Cities cannot be sustainable without ensuring reliable access to safe drinking water and adequate sanitation. Coping with the growing needs of water and sanitation services within cities is one of the most pressing issues of this century. Sustainable, efficient and equitable management of water in cities has never been as important as in

today's world. SGP will support waste management and reduce land-based pollution to international waters.

Urban land use and planning. Urban land planning is a form of land management that determines the best present and future use of parcels of land. In regards to sustainable environmental practices, smart growth is one way to of development that aims to cut dependence on cars, reduces wasteful resource use, and controls sprawls. Cities can become more sustainable if they choose to follow the principles of sustainability and develop according to an ecological design. In connection with strategic initiative of sustainable agriculture, SGP promotes urban gardens, farmers markets, and community supported agriculture.

3. Results measurement and alignment with GEF and larger frameworks

Country programs may select and prioritize one or two thematic issue areas as outline in the above section, and develop countries strategies to address these issue areas that will contribute to catalyzing sustainable urban solutions. Table 1 outlines he results framework for this strategic initiative.

Table 1. Results framework: catalyzing sustainable urban solutions

Project Objective: *To promote and support innovative and scalable initiatives, and foster multistakeholder partnerships at the local level to tackle global environmental issues in priority landscapes and seascapes*						
Project Components	**Component Type**	**Project Outcomes**	**Project Outputs**	**Trust Fund**	**(in $)**	
					GEF Project Financing	**Co-financing**
Catalyzing sustainable urban solutions	Technical assistance	Appropriate integrated community-oriented sustainable urban solutions promoted in partnership with private sector and government	Improved capacities to promote community-driven, socially inclusive and integrated solutions to address low-emission and resilient urban development in at least 25 countries At least 25-30 innovative socially-inclusive urban solutions/ approaches (including waste and chemical management, energy, transport, watershed protection, ecosystem services and biodiversity) demonstrated Viable public-private partnership approach for low carbon energy access for marginalized urban communities is implemented (no of countries to be determined)	GEFTF	1,462,119	1,526,000

4. Stakeholders and Partnerships

SGP will seek to support and complement GEF's sustainable cities impact program. Specifically, SGP will facilitate knowledge sharing and learning among urban poor and communities, and ensure policy uptake to local and national governments through demonstrations, dialogues, sharing and networking with the Impact Program key actors and stakeholders. SGP will develop and implement urban solutions through

partnerships and collaboration with municipal governments, private sectors, and civil society organizations to collectively implement a comprehensive approach to city challenges.

5. Risks management

Many urban poor people are new residents of cities with little social connections and networking. Unlike the rural areas whish SGP has traditionally worked and focused on where social structure or social capital exist between people having lived in the areas for generation, urban slums do not exist such social trust with a lack of social safety net. Crime rates are high in many urban slums. It might prove more challenging to organize these people, some are homeless or having no fixed residence. To enter such communities, SGP needs to develop and provide services that can combine direct local livelihoods and wellbeing benefits, and engage in awareness raising, knowledge sharing and demonstration of local benefits.

Inequalities between rural and urban areas as well as within urban areas have been features of development and urbanization in developing countries. The gap between rich and poor neighborhoods can imply significant differences in access to job opportunities and basic public services such as water and sanitation, electricity, education and health, housing and communications. As a consequence, many urban residents in developing countries suffer to varying degrees from environmental health issues associated to inadequate access to clean water, sewerage services, and solid waste disposal. Wider urban access to public services, income-earning opportunities and broader social interaction in cities has driven rural-urban internal migration in many developing countries. To address inequalities, SGP will work with municipal government and advocate for policy incentives to address urban slum challenges for long

6. Additional Resources

GEF Impact Programme on Sustainable Cities