Task Force 6
Accelerating SDGs: Exploring New Pathways to the 2030 Agenda

A HOLISTIC APPROACH TO URBANISM AS AN SDGs ACCELERATOR

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Abstract

A 2020 policy brief by the United Nations termed urban areas as the epicentre of the COVID-19 pandemic, with 90 percent of cases worldwide. It also highlighted the path to recovery through goal 11 of the Sustainable Development Goals (SDGs) by making cities greener, healthier, and more resilient (UNDP, 2020). Making cities healthy requires a synergic and holistic approach involving hardscape (habitat) and softscape (habits) (NUA, 2016). The Addis Ababa Action Agenda recognises the integrated nature of sustainability and emphasises the need for holistic cultural, strategic, and financing frameworks through locally-based knowledge and nationally-owned strategies (UN, 2015). Ancient traditions from the Asia-Pacific area, such as Vastu Shastra and Feng Shuei, also constitute ancient architectural systems based on traditional medicine. An upgrade of long-lasting and well-established traditions could be reinforced by innovative holistic approaches to cities. A protocol based on urban form and qualitative strategies could implement SDG-11 and deepen the sustainability efforts through local-national-global convergent actions, supporting healthy habitats, habitants, and habits.

The Challenge

1

Health hazards in urban environments

The risk factors to human health in cities can be summarised into two main factors: density and artificial environment, both representing the essence of cities. Man-made is what literally builds a city, the most representative human artefact. Density provides cities with a competitive advantage by allowing critical mass for sustainable public transportation and ensuring the functionality of essential social facilities such as hospitals, schools, businesses, city parks, and planned public spaces. Density also makes responding to health hazards faster and more effective, creating opportunities for better health institutions and high specialisations in doctors and nurses. Density, on the other hand, when not based on organic or smart growth, creates crowds, pollution, and heat increases due to the Urban Heat Island (UHI) effect. Dense cities have been identified by the UN as the epicentre of recent pandemics, with approximately 90 percent of infection cases. In the policy brief, the UNDP highlights the right path to addressing critical thinking during the recovery, which involves the importance of creating greener, healthier, and more resilient cities (UNDP, 2020). It is also understood that cities are the most significant contributors to greenhouse gas emissions on a global scale, producing 70 percent of global carbon dioxide emissions.

In terms of health and sustainability, cities are a living paradox: they are the better answer to global sustainability, while simultaneously being the major cause of the problems in health. This apparent paradox makes cities the main global solution for sustainable and healthy living.

The World Bank defines sustainable cities as resilient cities that can adapt to, mitigate and promote economic, social and environmental change. It also defines sustainable development by encompassing all aspects of a city's healthy development and addressing economic, financial, social and environmental issues. However, sustainability and health are related because both target the smooth organic growth of cities and their inhabitants. Through improved design and planning, city leaders can play an enabling role in promoting the health of the inhabitants.

Healthier and more sustainable cities can enable people to live healthier lives. In addition, better urban planning can mitigate the impact of disasters on urban populations. The World Health Organization (WHO) introductory guide outlines the requirements for needs assessment and action in specific areas, such as outdoor spaces and buildings; transportation; social participation; civic participation and employment; respect and social inclusion; communication and information; and community and health services (WHO, 2015).

The WHO constitution further states that mental health is an integral and essential component of health: "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." An important implication of this definition is that mental health is more than just the absence of mental disorders or disabilities. Mental health is a state of well-being in which an individual recognises their abilities, can cope with the normal stresses of life, can work productively and can contribute to the community. Mental health is, therefore, fundamental to our collective and individual ability as humans to think,

emote, interact with each other, earn a living and enjoy life. On this basis, the promotion, protection and restoration of mental health can be regarded as a vital concern of individuals, communities and societies worldwide.

From this perspective, SDG-11 (Inclusive and Sustainable Cities and Communities) addresses the direct and indirect effects of the urban environment on people's health from several points of view. The urban elements recommended in SDG 11 and the New Urban Agenda (NUA) are meant to initiate a positive circle of healthy habitats leading to healthy habits. Some of these elements include mixed land use, which works as a catalyst for residential density and encourages daily walking and biking; green spaces and recreational areas that inspire physical activities and promote mental health; and sustainable buildings that enhance indoor well-being while reducing AC consumption. Moreover, all the activities mentioned actively contribute to reducing the UHI effect and lowering the perceived urban temperature by 5–6 degrees Celsius. This enhances the quality and livability of the public spaces and supports an active lifestyle.

Addressing the challenge: Creating urban models targeting healthy environments

Several indicators of SDG-11 are directly related to SDG-3 (good health and well-being), but they primarily focus on increasing accessibility to health. They do not address the broader aspect of good health and well-being within a multidisciplinary systemic preventive strategy. The challenge is to create an integrated systemic and inclusive approach to urbanism and health, linking it into a circular concept interlacing humankind, environment and prosperity that requires targeting a holistic path of wellbeing. A qualitative result cannot be defined by quantitative parameters, and the challenge lies in determining how to measure qualitative output.

All traditional settlements worldwide applied the same kind of spatial strategy: the planning always started with a gathering space, a small-scale clustering of a few families, creating a sort of neighbourhood unit, bigger or smaller, depending on the social structure of the family and the community.

The idea of prioritising the creation of public spaces is rooted in the practices of some of the most resilient communities known to humankind, indigenous societies. These societies have consistently applied very simple and recurring urban principles, arising into a level of universality. Their principles are mainly based on the relationship between humans (microcosm) and the environment (macrocosm), encompassing laws and institutions that are incorporated into the urban design and building processes. A holistic planning process was the key to ancient knowledge, where the city-makers (the inhabitants) were guided by spiritual and well-educated leaders in finding the best solution for a harmonious and prosperous life. Architects were also spiritual leaders and skilled in integrating different disciplines to master wide multi-factor complexity; they were priests, astronomers, doctors and psychologists in addition to being architects. These criteria are responding to the WHO's requirements for health and well-being.

The Asian-Pacific Region has kept alive some of the most known traditional disciplines of planning, the Indian Vastu Shastra and the Chinese Feng Shuei—both a compendium of spirituality applied to architecture and a well-structured system of medicine. Both Ayurveda

and Chinese traditional medicine make a significant statement on how environment and well-being are strictly correlated. Their principles include scaling from the micro to the macro and vice versa, aiming at achieving a balance between functionality, bioclimatic design, and spiritual and cultural needs. The greatest benefits and prosperity come from being in perfect equilibrium with nature and managing the principles of void and polarity. Natural ventilation, combined with cosmic current or energy, promotes wealth, happiness and a long life. The void—as an urban space, so as an inner courtyard—was always the focal point in collecting and directing the divine energy. Their fractal conception of the universe ultimately enables its application across different scales, from the micro to the macro scale of cities and territories.

THE CHALLENGE

The G20's Role

2

Targeting global health is not only about addressing humanitarian objectives; it has much wider social and economic impacts on society. Healthy populations are essential to realising human potential and the objective of equitable, inclusive and economically vibrant cities. The Urban Health Index (UHI) published by the WHO in 2014 provides a standardised method for constructing a composite measure of population health. Health is one of the three subcomponents of the quality-of-life dimension along with education and public space, as prospected by UN-Habitat in the form of the Quality-of-Life Index, including five different factors: productivity, quality of life, infrastructure, environment sustainability, and equity.

Cities have always been engines for economic growth generating more than 80 percent of global economic activity. When people and their quality of life are not recognised as priorities, unintended outcomes take over in the form of featureless urban sprawl, substandard housing, traffic-clogged streets, toxic air quality, and underserved neighbourhoods (WHO, 2014). The expected worldwide urbanisation increase, bringing up to 90 percent of the global population living in cities by 2050, intervenes in the environmental quality of cities a global issue. The timing is perfect for implementing the lesson learned from the currently available evidence to create healthier cities that can accommodate the large number of upcoming urban citizens. The role of the G20, as global summit and premier forum for international economic cooperation, is crucial in addressing global issues and offering solutions on planetary scale, shaping and strengthening global strategic governance on all major international economic issues. Specifically, the Indian presidency can well receive and reverberate a transformative approach to global cities through the experience of its thousand-year-old culture based on a holistic approach across different disciplines.

Creating evidence-based indicators for holistic practices

The direct damage costs to health—excluding costs in health-determining sectors such as agriculture and water and sanitation—are estimated to be between US$2 billion and US$4 billion annually by 2030. (WHO, 2021) What we

are witnessing is a crescent commitment to finding health solutions through the medical industry, but the same level of intensity is not necessarily directed towards addressing the root causes of the illnesses. Cities are investing in disaster management and alternative energy solutions, but not removing the main causes of environmental discomfort. The result is that the implementation of technological and medical solutions only generates extra costs without an effective reduction of the causes. The absence of a holistic approach in both fields is the great challenge facing the global community, leading to an increase in the peaks of emergencies.

Within the framework of SDGs and CCE strategies, how could we assess the importance of removing unhealthy factors from the medical cures' value chain?

Ancient architects, often serving as priests, investigated the macrocosmic connection between spirit and earth to prevent possible causes of an unhealthy environment. The key, translated in technical terms, is a simultaneous multidisciplinary layering and comprehensive vision of the public space. The whole urban structure is created by integrating urban design, landscape design, transport and sustainability strategies, and architecture to analyse and engage at the different scales of interventions by constant up-scaling and down-scaling. This process aims to simulate and condense the collective efforts of building cities in the past, involving people as active city-makers over time.

Eventually, the traditional interconnection between medicine and environment got interrupted, and each sector now works on a compartmentalised range of actions. The sustainability indicators for cities are based on quantitative results while ignoring the importance of the urban form as a main decisive factor in translating the quantitative outputs into quality and effective impact on the population. For example, a green space that is inaccessible by urban transport has a limited impact on the daily habits of the population. That is how a holistic and form-based SDG approach would become a game-changing factor. Making cities healthy organisms requires a synergic and holistic approach involving hardscape (habitat) and softscape (habits) in activating a new perspective of mutual interactions. (UN, 2014).

Regarding this issue, the Addis Ababa Action Agenda recently highlighted the importance of global partnership for a sustainable environment (UN 2015). These partnerships encompass multi-stakeholder contributions, financing, economic and social inclusion, as well as science, technology and trade, as outlined in SDG-17. SDGs are the missing cross-sectorial indicators, a form-based and habits-based approach. To create healthy cities, we recommend integrating the current quantitative indicators for SDG-11, SDG-3, SDG-4, and SDG-17 into a holistic framework that considers the impact on the end-users instead of just a numerical count of the actions taken. The integration should target interdisciplinary-based knowledge and a more comprehensive approach as well as tangible key performance indicators instead of expenditure costs.

THE G20'S ROLE

Recommendations to the G20

3

For a more holistic approach to achieving SDG results, this brief recommends adding the following new indicators to SDG-11, SDG-3, SDG-4, and SDG-17:

11.3.3 Intersectional actions for generating urban health

Definition: (new) Indicator 11.3.3 is the average number of share of actions among different sectors (e.g., health, transport, environment); actors (e.g., government, private sector, civil society) and urban segments (e.g., neighbourhood, city, provincial, national and international levels)

Goal: Provide a global approach to healthy habitat to any public urban project by 2030.

11.3.4 Multidisciplinary approach to design an active community

Definition: (new) Indicator 11.3.4 is the average number of envisioning scenarios due to urban upscaling, enhanced technology and comfort, and spatial requirements, through a fractal approach to the urban form, moving from micro to macro and backward.

Goal: Provide a multiscale and multi-stakeholder approach to any urban project by 2030.

11.7.3 Activation of healthy habits in the citizens as daily access to green/blue spaces

Definition: (new) Indicator 11.3.4 is the average number of daily access to green/blue spaces; this indicator is crossing the concepts of safety, accessibility, liveability and green/blue cities.

Goal: Provide universal daily access to green/blue facilities by 2030.

11.8.1 Measuring the healthy habits generated by healthy urban habitats

Definition: (new) Indicator 11.8.1 is the average number of citizens' daily healthy practices in terms of public mobility, outdoor exercising, walking and cycling, shopping for local food; it might be subdivided into specific areas of action.

Goal: Provide universal daily healthy habits by 2030.

11.8.2 Public transport connectivity within 30' 30 minutes between residence and work

Definition: (new) Indicator 11.8.2 targets CCE removing the use of private transport as a cause of unhealthy cities, through the easy access to public transportation to all, targeting a maximum of 30' distance coverage within all the cities' districts

Goal: Provide universal public transport connectivity within 30' between residence and work by 2030.

11.C.2 Activation of passive systems for indoor and outdoor environmental control

Definition: (new) Indicator 11.C.2 targets the reduction of HUI and the environmental footprint by investing in passive lighting, heating, and cooling systems for indoor and outdoor environments reducing the related use of energy, and the HUI effects.

Goal: Provide –5 degree degrees Celsius for each district through the implementation of environmental passive solutions by 2030.

11.C.3 Implement the 4R of Removing/Reusing/ Recycling/ Repurposing for urban public spaces

Definition: (new) Indicator 11.C.3 targets CCE within cities by the implementation of Reusing/ Recycling/ Repurposing practices in the public space, while involving the communities in creative projects for public space hard- and soft-scape.

Goal: Implement the 4R of Removing/ Reusing / Recycling / Repurposing practices for 80 percent of public space furniture by 2030.

3.E.1 Measure the improvement of health and well-being linked by SDG 11 implementation

Definition: (new) Indicator 3.E.1 targets the achievement of SDG 3 targets and indicators in direct and indirect relation to the comprehensive application of the SDG 11 goals, indicators and KPIs. For example, the achievement of indicator 3.5 based on the measured daily accessibility to green/blue facilities (11.7.3), and of indicator 3.6 based on the measurement of daily use of public

transport (11.8.1), and the accessibility within 30' 30 minutes of work (11.8.2)

Goal: Linkage of SDG 3 to comprehensive healthy cities strategies within SDG 11 by 2030.

4.7.2 Ensure access to ancient knowledge towards holistic sustainable and healthy urbanism

Definition: (new) Indicator 4.7.2 measures the number of people (students, teachers, professionals) exposed to knowledge of traditional disciplines in urbanism and architecture, and cross-fertilizing courses on urbanism and holistic processes for urban and architecture design.

Goal: Seventy percent of students, teachers and professionals engaged in urban development exposed to ancient practices and holistic knowledge about sustainable and health healthy urbanism by 2030.

17.20 Activate multi-stakeholder processes in defining qualitative KPIs linking urban and human health

Definition: (new) Indicator 17.20 targets the activation of a protocol based on the Addis Ababa Action Agenda including multi-stakeholder committees for the coming G20 events targeting the direct and indirect linkage between human health and urban spaces. The same committees will be monitoring the implementation phase.

Goal: Define and implement comprehensive KPIs linking human health and urban spaces by 2030.

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