



THE 15TH ANNUAL SESSION OF GLOBAL FORUM ON HUMAN SETTLEMENTS

OUTCOME DOCUMENT

The year 2020 has led the world into a decade of action on the Sustainable Development Goals (SDGs), and the UN calls for a networked and inclusive multilateralism which will not only allow the outpouring of global solidarity to combat COVID-19 crisis, but help overcome the challenges of our current era. 2020 also marks the 15th anniversary of Global Forum on Human Settlements (GFHS) which has been dedicating to make sustainable cities and human settlements for all. GFHS has also issued a statement to extend its strongest support to the latest report launched by the United Nations “Policy Brief: COVID-19 in an Urban World” (hereinafter “Policy Brief”).

Due to the unprecedented challenges created by COVID-19, human society is being reshaped. Cities remain as the key battleground to strive for economic growth and sustainable development. But on the pathways towards a sustainable future, the first and foremost agenda is to ensure that cities are safer, securer and healthier, that cities become increasingly resilient to pandemic, climate, and various ecological crises, and that cities are closely linked to rural areas and nature to enable interactions in a positive and synergistic way. In the process, resilient cities need to be put in a better position to protect and enhance people's lives, secure development gains, foster an investible environment, and drive positive change. Only by maintaining ecological integrity and reinforcing urban resilience can we foresee a future that is safe, inclusive, prosperous, and sustainable.

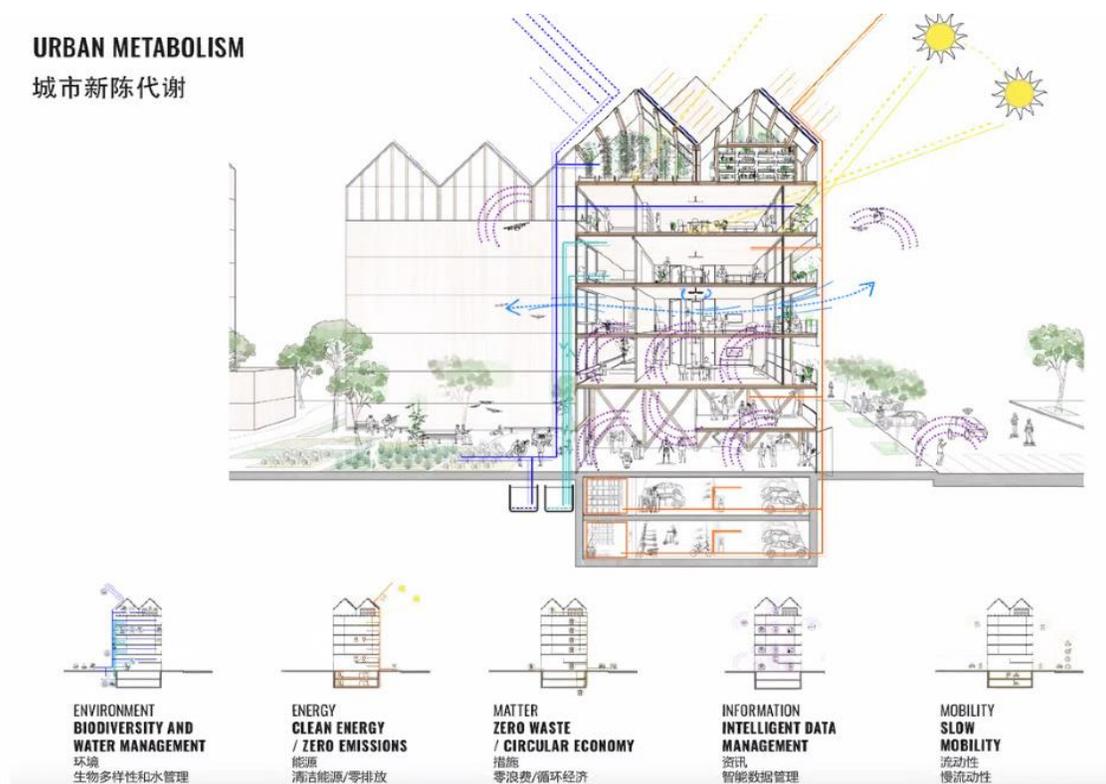
Therefore, with the objective of undertaking a timely and effective opportunity to implement the Policy Brief, the 15th Annual Session of Global Forum on Human Settlements was successfully held in a virtual format on October 15-16, 2020 to address the theme “Post-Pandemic Recovery and Transformation: Resilient Cities, Healthy Planet”. This year’s forum was supported by a record lineup of 24 authoritative organizations, including 10 UN agencies and Asian Development Bank. Some 100 distinguished speakers and discussants contributed to the in-depth discussions and analysis on a range of challenges - public health crisis, ecological disruption and climate change that cities have had to wrestle with so as to embark on a path to sustainable development. The two-day forum has reached out to more than 100,000 professional audiences through live

streaming and participation. The participants have realized the importance and urgency of taking decisive action to halt destruction of nature and tackle the imminent threats that undermine the health of ecosystems and disrupt the global climate, through a greener recovery and transformation towards sustainability.

Through the two-day deliberations, we, the participants of the 15th Annual Session of Global Forum on Human Settlements, acknowledge the issues and points recommended as follows, and deliver a strong call for accelerating actions in scaling up sustainable development practices and innovations, thereby making cities and communities safer, more inclusive, resilient, and sustainable, and achieving our vision of a healthy planet upon which all life depends to survive and thrive.

1. We live in a moment of crisis and a moment of change. The triple planetary crisis - climate change, biodiversity loss and pollution is putting us at risk of irreversibly changing our relationship with the natural world and how we benefit from it, and often act as a threat multiplier. As global warming increases the likelihood for more extreme weather events to occur, risks will expand beyond the high-risk areas known today.
2. We reiterate that cities are on the frontlines of the fight against this and future pandemics, climate change and emerging crises. COVID-19 as a great accelerator and exposure of existing inequalities and vulnerabilities urges us to rethink and reshape our cities which are the “engines of the recovery”. The urgent priority is to strengthen city preparedness and emergency response capacity, in terms of planning, governance, capacity building, financing, service delivery and business continuity.
3. We can shift our development trajectory to a nature-positive and climate-friendly future, but this requires clear thinking, great determination, and strong commitment and ambition from national governments in key policy fora, as well as decisive actions in our cities, businesses and communities.
4. We strongly call for transformative changes through a fundamental, system-wide reorganization across political, technological, economic and social factors, including paradigms, goals and values, for the purpose of conserving, restoring and sustainably managing biodiversity, and meeting global climate, societal and economic goals.
5. Health is a political choice at global, national and local level. Health needs to be integrated into all policies. Healthy urban planning requires strengthening the connection among stakeholders and government, collecting and analyzing the data from local and various departments, and adopting global and transversal approach.
6. The well being of people is dependent on the well being of the Earth. Food is the connector which links humans to other species, urban settlements to the countryside. Sustainable food systems can address the multiple crises - the climate emergency, the health emergency, the livelihood, poverty and hunger emergency.

7. The three key elements -- boosting ambition, building a more resilient future, and providing a just transition from fossil to green, are what we need to build a cleaner, greener and healthier future. But that's not all we need—we also need strong National Adaptation Plans to back up this work.
8. It is high time that we end the culture of procrastination and the pursuit of greed at the expense of the future of our planet's survival. This implies political will, adequate financial resources, and necessary initiatives, among others, beginning with the education system and the preparation of human resources to reach out to the hearts and mind of future generations.
9. It is critical that cities adopt an ecosystem and adaptive management approach and integrate nature and nature-based solutions that is cost-effective and replicable, in urban planning and development processes, as well as local climate action plans and disaster risk reduction strategies, with a view to protecting biodiversity and achieve long-term urban resilience.



10. We need nature more than ever. Nature is a form of insurance for human existence and our quality of life amid growing uncertainty. Without transformative action, there will be further acceleration in the global rate of decline including species extinction and a loss of nature's contributions to people.
11. When countries conserve and protect their biodiversity, they are able to unlock new economic opportunities, jobs and innovative nature-based solutions to contemporary challenges. As a diverse range of investments and revenues can protect businesses against

external and uncertain shocks, the diversity of life on the planet is what determines our ability to choose alternatives in the face of an uncertain future.

12. We re-emphasize that the people who are worst hit by both public health crisis and climate change are the poor and the vulnerable. The heart of resilience building therefore is to prioritize policies to confront spatial, social, economic and cultural exclusion with the aim of leaving no one behind.
13. Immediate actions should be fostered to enable creating better social protection for the most vulnerable groups, and provision of affordable, sustainable housing, urban services and infrastructure. Strategic actions involve implementing integrated urban planning and design policies, strengthening the financial sustainability of cities, and increasing the governance capacity of various stakeholders.
14. In the medium and long term, it is essential for government to implement measures aimed at diversifying the economy while ensuring a resilient, inclusive, gender-equal and green economic recovery.
15. Ecological sustainability leads to urban prosperity, and vice versa ecological disruption leads to urban decay. Building ecological cities is the way to create global cities of excellence.
16. Cities could be much better prepared for the rapid urbanization, as well as for climate change and other crises – if they were able to utilize the multiple benefits that can be provided by Integrated Urban Hydrometeorological, Climate and Environmental Services, including urban resilience through Multi-Hazard Early Warning Systems, sustainability through urban long-term planning, efficiency through infrastructure cross-cutting services, consistency through integration and development of effective services, and capacity enhancement through partnerships and risk communication.
17. To build a solid city resilience plan, high priority should be given to anticipation, future-oriented studies, and long-term thinking while early prevention is enforced. The earlier organisations invest in adaptation, the lower the costs will be in the future, in terms of hazards and crisis management.
18. Reliable and fact-based data and implementable tools should be in place to reinforce prediction and decision-making process so as to foster long-sighted policies and strategies. A cross-disciplinary collaboration bridging the scientific world and local government is highly needed.
19. The piecemeal approach in urban risk management has seen the emergence of significant gaps and overlaps in knowledge and action that has impeded the development of a comprehensive urban risk management system that can cope with current and future risks. The shift towards a broader view and a more context-dependent definition of hazards requires a systematic approach to risk that considers hazard, vulnerability, exposure and capacity together and better understands their cascading and complex interactions. By doing so, improvement can be achieved for the targeted governance in urban areas.

20. We recognize the importance of the global partnership campaign - The Making Cities Resilient 2030 (MCR2030) which builds on the success and lessons learned of the previous decade of work under the Campaign and will provide cities a resilience roadmap, a suite of tools and knowledge guidance, an online dashboard for monitoring and evaluation and a platform for marketplace.
21. We reaffirm the important role of inclusive multilateralism when it comes to helping cities and communities around the world make the energy transformation we so urgently need. We must ensure the transformation to a more renewable future is a just transition. It must be a process that helps those working in high-emissions sectors get the training they need to make the transition to new jobs mastering new technologies in a cleaner, greener energy sector.
22. We need innovative governance form related to urban settlements, particularly for spatial planning. We need to accelerate a green circular economy, promoting jobs and business using innovation in cities with appropriate bioclimatic design, consumption and procurement standards, and in offering urban youth opportunities for start-ups that facilitate sustainability.
23. Circular economy focuses on three key principles; waste and pollution to be designed out of products and urban systems; materials to be kept in use and maintain their value for as long as possible; a natural system surrounding city that is regenerative.
24. In a post COVID-19 era, we need to address the future of cities that are human-centred, particularly coastal cities and megacities in direct relation to the people who inhabit them. Hence the character of future coastal cities that are adaptable and resilient is in the hands of all stakeholders who share mutual aspirations and create a process for living from the ocean and with the ocean sustainably.
25. Addressing something as complex as sea level rise in the development problems requires an all-inclusive integrated approach. Unfortunately, there remains a persistent trend to divide issues and cast them into standalone silos. That is why we need to put multilateralism back on track as part of the global response to addressing the crisis in multilateralism.



▲ Rich marine resources of the Maldives

26. In a Blue Economy way of thinking, the international community may finally be motivated to place a true value on natural and freely accessible common goods and services. Two principles that we should apply in ocean governance are users pay and beneficiaries pay.
27. Enhancing the adaptability of buildings plays a significant role in combating pandemics. The policy interventions should include making use of urban areas and buildings made redundant by the pandemic; launching major low-income housing and commercial retail renovation programs as post-pandemic social equity and economic recovery measures; and encourage natural and hybrid ventilation, improving mechanical ventilation capacities, and increasing outdoor air ratios in ventilation systems.
28. We recognize the importance of international standards, such as those developed by ITU, in guiding the implementation of ICTs and digital technologies. While technological progress is key for accelerating sustainability efforts and preserving biodiversity in cities, the lack of affordable Internet is threatening to undermine this progress. International standard can provide concrete guidance to urban stakeholders on how to optimize urban infrastructure, improve accessibility to low-cost ICTs while boosting energy efficiency and circularity in cities, and achieving a green and inclusive recovery from COVID-19.
29. To ensure a provision of resilient infrastructure, we must strengthen local authority's ability to use its policy authority to shape development in ways that essential urban infrastructure is safe, durable, inclusive and sustainable. In the meantime, local governments and infrastructure system operators must improve its capability of using comprehensive asset management strategies for the purpose of securing adequate capital investment and sound operations and maintenance.

30. A resilient future is dependent on the effective bio-integration of four sets of infrastructures – humans, nature, water, and built environment. All human activities and systems must be ecocentric and be guided by the science of ecology. Our built environment must emulate and replicate the attributes of ecosystems as constructed ecosystems. Our technological systems must be reinvented to provide ecosystem services for all.
31. We call for a green development revolution, green city revolution and green culture revolution on a global scale. International community must make concerted efforts in accelerating the implementation of the global conventions and agendas, notably "2030 Agenda for Sustainable Development", thus reducing and containing ecological and climate disasters. Looking forward, it is necessary to formulate "Post-2030 Agenda for Green Revolution and A Healthy Planet" and to take decisive actions in order to achieve global green transformation and secure a promising future for all.

Recommended Sustainability Cases

1. The Shanghai Chongming Dongtan Ecological Restoration Project is the largest ecological rehabilitation on the migratory bird flyways in the Asia-Pacific region with the main objective of controlling alien species and restoring the functions of migratory waterbird habitats. By adopting a combination of ecological and engineering approaches, the project has achieved phased results after five years of construction and continuous restoration. First, the growth and expansion of *Spartina alterniflora* was controlled in the implementation area and the indigenous plants are being restored. Second, the program resulted in a nearly 6,600-acre restoration area with a relatively closed environment and adjustable water level management. Third, there was a dramatic improvement of the ecological environment in the project implementation area, and the number of bird populations has increased significantly. For example, in 2017, the growth area of the main indigenous plants in the restoration area reached 2300 acres, and the number of fish species went up to 21, macrobenthos, 25, and the bird population reached 83,149, quadrupled that of 2016.



▲ The biodiversity at Yangtze River Estuary Delta

2. DyeCoo® is the world's first supplier of a water- & process chemical-free dyeing technology. Its revolutionary CO₂-based dyeing process makes textile dyeing more

sustainable, without compromising on performance or efficiency. On average they save 35-50 liter water, and 130grams of chemicals per kilo dyed. Today roughly 10,000 tons are being produced, indicating an annual saving of 400,000,000 liters of water, and 1.500 tons of chemicals. As an eco-innovation practice characterized by zero water, zero chemical, and zero waste, this technology helps achieve both sustainability and profitability, and is expected to replace water-based dyeing technology around the world, setting the new standard in the textile industry and contributing to the circular economy.



3. As an eminent scientist, scholar, and environmental philosopher, Dr. Vandana Shiva has been constantly showing her practice and research that mankind is part of nature, and the well being of people is dependent on the well being of the Earth. As members of an earth family, care for others becomes the purpose of life, contributing to improving human common unity and human settlements, promoting environmental sustainability and lowering Green House Gas Emissions. The two primary ecological flows between the country and the city are food and water. Sustainable management of land and water ensures that people in rural areas have sustainable livelihoods, and are not turned into ecological and economic refugees. Food is the connector which links humans to other species, urban settlements to the countryside. Biodiversity erosion and species extinction are a result of ignoring the health of the soil in a non sustainable agriculture model. Regenerative systems regenerate biodiversity and reverse the threats to extinction. Time Magazine identified Dr. Shiva as an environmental “hero” in 2003. Forbes magazine in November 2010 has identified Dr. Vandana Shiva as one of the top seven most Powerful Women on the Globe. In 2020, she was honored with the Global Human Settlements Outstanding Contribution Award during GFHS 2020.
4. Located in the Baa Atoll UNESCO Biosphere Reserve in the Maldives, Soneva Fushi occupies the whole of the 50-hectare island. It is one of the greenest islands in the Maldives with a 67% forest cover. Through implementing a range of sustainability initiatives, the resort has become carbon neutral in 2012 for both direct and indirect resort operations including guest flights. In terms of renewable energy, their hybrid solar-diesel system covers most of the demand during the day. By running the water desalination production during the day rather than at night to allow it to run of solar energy, as a result, they achieved 15% reduction in diesel consumption, leading to a significant financial saving as well as reduced

carbon footprint. They also developed the hospitality industry's first Environmental Profit & Loss that is incorporated into the Total Impact Assessment. The state-of-the-art Eco Centro Waste-to-Wealth facility recycled 90% of their solid waste. Food waste is composted to create fertile soil for the vegetable gardens. Furthermore, the resort is 100% self-sufficient with electricity generation as well as water production from desalination. They also introduced an environmental levy on the room rate in 2008. Funds raised have been invested in carbon mitigating projects, through the Soneva Foundation. Further actions have been taken to expand their solar capacity with an aim to achieve at least 70% renewable energy.



▲ Soneva Fushi, Maldives

5. The Arroyo in Santa Monica, California is a 100% affordable housing project for families which has 64 dwelling units, 2 community rooms, on-site laundry, an outdoor homework patio, and an elongated central open courtyard with a half-court basketball area. The building is located within a 5 minute walk to a train station and bus lines, 10 minutes to the beach, and is within an active urban center. It achieved LEED certification at platinum level in May, 2019. The key features include good accessibility to active urban center, train station, bus lines, beach; open-ended courtyard for prevailing ocean breezes, providing daylight; the open air corridors, bridges, and stairs create a visually dynamic circulation system to create a fun and walkable experience for residents to make the elevator a less attractive option and encourage an active lifestyle; leveraging real earth below the courtyard to plant large shade trees and bringing a moment of native California landscape to the street; brightly colored undersides sunshades reduce solar gain and reduce interior lighting demands; the bridges serve to make the life of the building visually accessible to the neighborhood and create moments of encounter between residents.
6. The Meter Online Service developed by CLP Power Hong Kong Limited is a good example of integrating weather services into energy management. The latest version, Meter Online

Service 3.0 gives customers a simple and convenient means to access the latest load profile data. With more information on hand, customers will be in a better position to manage their energy consumption and demand so that they achieve better energy efficiency. The key features include (a) Forecasting the Occurring Time of Peak Demand: designed for customers with significant chiller consumption, which is heavily affected by ambient temperature and humidity. In anticipation of high consumption days with occurring time, customers can have more time to better plan for energy savings or demand reduction initiatives. (b) 9-Day Regional Consumption Forecast: provide 9-day consumption forecast according to Hong Kong Observatory's latest regional weather information, this can enhance the analysis to be more specific. (c) Load Profile Download: enables customers to download load profiles for up to 10 accounts/meters. (d) Enhanced Proactive Energy Management: alert emails to designated recipients from systems when pre-set limits of energy consumption are exceeded.

7. As Singapore's largest hospital, Sengkang General Hospital is an integrated development, offering cutting-edge facilities with community-based care. The project was characterized by energy-efficient and environmental-friendly features. There is a podium rooftop wellness garden and pockets of greenery to provide a conducive environment for healing in an urban setting. Green roof and rooftop garden are provided for at least 25% of the roof areas. Facilities and amenities at the gardens employ biophilic design and use natural looking materials. The hospital is designed with a rainwater harvesting system, which filters harvested rainwater for irrigation. A water efficient drip system is also adopted for irrigation. Additionally, the system is automatically using rain sensor. Thus, irrigation is only performed during drought or when there is no rain, and is done using NEWater instead of potable water. Many parts of Sengkang Hospital used precast elements constructed offsite. Ground Granulated Blastfurnace Slag, Recycled Concrete Aggregates and Washed Copper Slag were also used extensively to reduce the usage of virgin materials. Highly efficient chilled water plant with variable speed drives was designed to meet the building air-conditioning needs. The air handling units were supplemented with carbon dioxide sensors (to control outdoor air intake) and variable air volume system for further energy savings. Nestled in a predominantly public housing residential neighbourhood, the project offered opportunities for community engagement and building of social ties within the neighbourhood.



▲ **Sengkang General Hospital Campus**

8. The Water Sensitive Rotterdam programme is to make the city a better place to live and to promote social cohesion in addition to climate adaptation. One case in point is the Benthemplein water square which retains water from the square's pavement as well as rainwater from rooftops of surrounding buildings. As a result, these buildings' wastewater pipes have been disconnected from the Rotterdam sewage system. The water square therefore eases the stress on the city's sewage system, which in turn prevents urban floods. It also helps the city avoid the significant financial cost associated with upgrading sewers in the future. The water square combines water storage with the improvement of the quality of urban public space. It offers room for basketball, skateboarding and performance arts within pits that can also hold up to 1.7 million litres of water during rainfall. Three basins collect rain water: two un-deep basins for the immediate surroundings will receive water whenever it rains; one deeper basin receives water only when it consistently keeps raining. After the rain, the water of the two un-deep basins flows into an underground infiltration device and gradually seeps back into ground water. Thereby the ground water balance is kept at level and can also cope with dry periods. The water of the deep basin flows back into the open water system of the city after a maximum of 36 hours to ensure public health.
9. Located in the southwest of Zhejiang Province, China, Changshan County has a history of more than 1,800 years, and is hailed as a shining pearl in the west gate of Zhejiang and the upper reaches of the Qiantang River. With a total area of 1,099 square kilometers and a population of 342,000, Changshan has been guided by the conviction that lucid waters and lush mountains are invaluable assets, and continues to fight against the challenges to air, water and soil. The County actively promotes economic green transformation and high-quality development for the purpose of making the city greener and more sustainable. Changshan County is endowed with an excellent ecological environment, with a forest coverage rate of 73.2% in the territory. The air quality is annually maintained above the

second level of the national standard. The water quality of the drinking water source is 100% compliant to the standards and the green coverage rate in the built-up area is up to 41.31%. The County is possessed with beautiful landscapes, abundant natural resources, and delicious food. The special local product grapefruit has been proved to have positive effects in preventing coronary virus. There are many historical sites, with long-lasting traditional customs and culture. The County has made remarkable achievements in building the landscape belt along the "River of Song Poetry" as well as in protecting the national intangible cultural heritage "Changshan Cheers Folk Music". Relying on these advantages, Changshan has been vigorously developing leisure tourism and health care industries, which contributes to a dynamic green economy. Also, the County saw great progress in the development of the "international slow city", and has been doing quite well with regard to "urban governance", "inclusive and equitable society", and "urban-rural integration". Its people enjoy a happier life.



▲ Changshan County

10. To help suppress the spread of COVID-19, Glasgow is introducing temporary measures across the city to provide additional space for physical distancing whilst out walking, wheeling and cycling. Spaces for People programme is seeing short-term travel infrastructure implemented in the city centre, city neighbourhoods and active travel routes, forming a key part of the city's strategy for economic recovery. Spaces for People is widening footways at pinch points to facilitate safer pedestrian movement and easier access to shops, businesses, community facilities and public transport hubs. Consideration is also being given to the positioning of temporary strategic cycling routes to highlight active travel as an attractive, viable choice for everyday journeys. This project (a) inhibited a resurgence of Covid 19 due to overcrowding on footways; (b) enabled safe retail business operation, and facilitated trading capacity of hospitality sector by allowing space for managed queuing and catering; (c) offered an alternative to public transport while capacity was significantly reduced; (d) reduced mental and physical health issues by provision of active travel routes for exercise; (e) facilitated safe access to community facilities and transport hubs; (f) implemented temporary strategic cycling routes to promote cycling as a travel option; and (g) encouraged

long term behavior change towards active travel. As a result, 42km of new cycle lane was installed. In August 2020 there was an almost 200% increase in the number of people cycling along the River Clyde on the Broomielaw compared to the same period in 2019.



▲ Green mobility in Glasgow