Extract from the Proceedings of the Virtual International Conference on

Aligning Local Interventions with the UN Sustainable Developments Goals (SDGs)

Organised by the Institute of Energy and Sustainable Development,
De Montfort University, Leicester, United Kingdom on the 2nd of July 2020

Edited by

Professor Subhes Bhattacharyya
Institute of Energy and Sustainable Development
De Montfort University

Session 2: Communication 6:

How to properly plan and implement SDG 11 to make sustainable cities meet their real purpose?

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Published by
Institute of Energy and Sustainable Development
De Montfort University, Leicester, United Kingdom

03 March 2021

Please cite this document as follows:

Tian, L and Z Wang, 2020, How to properly plan and implement SDG 11 to make sustainable cities meet their real purpose? in Bhattacharyya, SC, 2021, Proceedings of the Virtual International Conference on Aligning Local Interventions with the UN Sustainable Development Goals, Conference held on 2nd July 2020, Institute of Energy and Sustainable Development, Leicester.

Session 2: Urban Built Environment and the SDGs

Chaired by Prof. Mark Lemon, IESD

How to properly plan and implement SDG 11 to make sustainable cities meet their real purpose: Analysis Based on COVID-19

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Abstract

Many countries have formulated corresponding policies to achieve SDG 11 (Sustainable cities and communities). However, almost all these studies focus only on the impact of a single indicator. Due to the current outbreak of COVID-19, it has further tested whether cities implementing policies in accordance with the SDG11 is flexibly applying and analyzing the current status of the city to resist COVID-19's damage to the city's economy and resources. This paper makes a reasonable summary of the countries with severe COVID-19 disasters this time and uses positive theory and negative theory to prove the research theme. The difficulty of the research is that COVID-19 is a global emergency, thus the collection of secondary data needs to be analyzed in conjunction with reports and news.

Key words: SDG 11, COVID-19, plan and implement, Achieve SDG 11

1. Introduction

At present, many cities regard sustainable development as their strategy and strive to achieve the SDG 11 (Satterthwaite, 2016; Patel et al., 2017). For the invasion of the COVID-19, in accordance with the SDG 11, the countries implementing this policy can effectively prevent the further spread and outbreak of the virus. However, nowadays the COVID-19 has completely exploded and spread all over the world. Even the cities of some developed countries, and the SDG11 target as a city for future development, has become a severely affected area in this outbreak. At the same time, the current situation proves that in the face of major disasters, such as the COVID-19, the implementation of SDG 11's target strategy requires more stringent and meticulous changes. It cannot just be the mechanical completion of the corresponding target indicators. Therefore, this study takes COVID-19 as the background, and the aim is how to properly plan and implement SDG 11, so that sustainable cities can achieve their actual goals. The research method collects secondary data and conducts a comprehensive literature review of the collected data. It also makes a reasonable summary of the countries with severe COVID-19 disasters this time and uses positive theory and negative theory to prove the research theme center.

2. Literature review

2.1 Compact city with high population density

Currently, high-density compact city models are generally considered to be the ideal way to maintain urban development because it can mitigate the effects of climate change caused by reducing energy consumption in transportation and buildings. SDG 11 aims to make cities inclusive, safe, resilient

and sustainable. Therefore, SDG 11 has become a social consensus for the development of sustainable cities (Srinivasa Rao and Vazquez, 2020). It can provide more employment opportunities for residents and make everyone have access to basic services, energy, housing, transportation and more services (Akuraju et al., 2020). The achievement of SDG 11 not only makes cities and societies more sustainable, but also helps achieve other SDGs (Pradhan, 2019).

2.2 SDG-11 planning and implementation

At this stage, when planning SDG 11, the main purpose of governments of all countries is to plan and make decisions with economic growth as the main center. The problem of urban environmental governance is usually regarded as the treatment of sewage, atmosphere and soil, but many governments have ignored the guiding ideology that human and nature are the common life. The outbreak of COVID-19 exposed the fundamental weakness of governments in planning SDG 11. It shows how widespread poverty in urban areas, weak health systems, lack of education and lack of global urban regional cooperation exacerbate the crisis. When the government implemented the SDG 11 plan, it only focused on the economic problems that could be improved and the basic problems that could be solved quickly. Meanwhile, the implementation of SDG 11 has no clear connection with the local government level. In the face of COVID-19, according to the ideal situation, if the SDG 11 is really rationally planned and the SDG 11 policies are effectively implemented, it can effectively prevent the new crown virus, but the actual situation is the opposite. The COVID-19 epidemic has exposed that many countries need to improve in the planning, emergency response, control and governance of public health events. This situation is also seriously inconsistent with the original purpose of SDG 11. At this stage, countries around the world have implemented unprecedented social alienation measures to curb the spread of COVID-19 (GU, Jiang, Zhao and Zheng, 2020). Such a sudden interruption of daily life may affect the well-being of human beings, especially people living in densely populated urban environments with limited public space (GU, Jiang, Zhao and Zheng, 2020). Social isolation can lead to loneliness and negative emotions (Hawkley and Cacioppo, 2007). Therefore, to ensure the sustainability of urban ecosystems, it is more important than ever to study ways to ensure the health of the urban environment and its people (Rifai, 2020). Hence, COVID-19 tells people that when planning and implementing SDG 11, the ultimate goal cannot be just economic growth. In the future, people need to move towards the sustainable development goals of innovation, coordination, greenness, openness, sharing and adaptation to local conditions. Therefore, to ensure the sustainability of urban ecosystems, it is more important than ever to study ways to ensure the health of the urban environment and its people (Rifai, 2020). SDG 11's plan and implementation direction also need to be adjusted based on people's health.

2.3 The impact of COVID-19 on SDG 11

The outbreak of COVID-19 also has a multi-faceted impact on SDG 11, and the strategy's focus needs to be adjusted to achieve the 2030 target. Table 1 illustrates the positive and negative effects of COVID-19 on SDG 11.

Positive impacts	Negative impacts
Development of the Community is concerned	Construction of a stagnant city in the short term
Promote the development of safe, inclusive and accessible green public spaces	Housing and basic services shall be affected

Promote the development of green building and healthy building	Public transit has been affected
Fostering the growth of new industries	Increased unemployment

Table 1 The impact of COVID-19 on the positive and negative aspects of SDG 11
Source: (Gulseven, Al Harmoodi, Al Falasi and ALshomali, 2020)

Therefore, according to Table 1, in order to achieve the target of 2030, each government needs to adjust the planning focus, not just blindly planning and implementing according to SDG 11 indicators (Gulseven, Al Harmoodi, Al Falasi and ALshomali, 2020). First, from housing to infrastructure, urban security and education, local decision-makers need to make choices and innovations. Meantime, in order to determine the priorities to be achieved by 2030 and accurately measure their progress, further analysis of the impact of 2020 and the ultimate goal of 2030 is needed. Table 2 illustrates the impact of COVID-19 on SDG 11 in 2020, and the directions that need to be paid attention to later in order to achieve the 2030 target.

SDG 11 Target	2020	Achieve 2030
Suitable, secure and affordable accommodation	The lockdown has resulted poor housing conditions and some people were unable to afford the rent	Need to pay more attention to the creation of new positions, and also build green and healthy buildings or reconstruct to optimize the old buildings
Safe, affordable and sustainable transportation	Most air, train and road transport are closed	Make more attention to transportation and transportation development. Stimulate deeper communication between the transnational cities
Employment and sustainable communities	Some have missed their jobs	Create new industries and diversified work elements
Safe and green public space	Increased sense of social isolation due to isolation, especially the elderly and children	Increase education, health and social protection spending while building more urban space

Table 2 Effects of COVID-19 on SDG 11 in the short and long term
Source: (Gulseven, Al Harmoodi, Al Falasi and ALshomali, 2020)

3. Methodology

This research mainly collects and compares the literature review based on the actual effect of SDG 11 in COVID-19. As shown in Figure 1, the search follows a systematic review process. Firstly, in large databases, such as Google Scholar and Scopus (Kolle, Shettar, M. and G.S., 2018), electronic publications related to SDG 11 and COVID-19 were searched. Use appropriate keyword search, for

example, the implementation measures of SDG11, how to implement SDG 11 in the face of the conflict of COVID-19, facing the predicament of COVID-19 sustainable development city. All these data have been downloaded to Mendeley. However, because the research topic involves COVID-19 global emergencies, when searching for documents, there are certain difficulties in searching for documents because the topics are relatively new. Therefore, it also needs to be combined with certain conference news reports for reference.

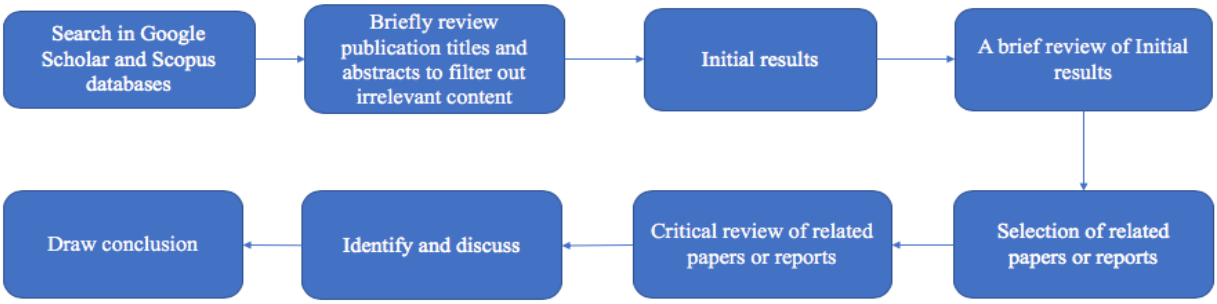

Figure 1 Overall Process and Flow Research
Source: Author

The collected articles and reports are divided into positive examples and negative examples. Firstly, the negative examples used to explain that the mechanical pursuit of SDG 11 caused the conflict of SDG 11 internal goals. Secondly, through positive examples, it is proved that SDG 11 can play a real role in resisting COVID-19 and improving urban efficiency.

4. Discussion and Findings

4.1 Do not blindly pursue SDG 11

This research takes COVID-19 as an example to demonstrate that the pursuit of SDG 11 by blindly causes conflicts within SDG11's internal goals, namely reducing disaster losses (COVID-19) and improving urban efficiency (increasing the degree of aggregation). Excessive pursuit of urban efficiency, such as increasing population concentration, it increases the losses caused by various disasters, such as the spread of viruses. Excessive disaster prevention increases the cost of living. Therefore, the blindly pursuit of each goal in SDG 11, the final result may be counterproductive. If in order to achieve the SDG 11, continue to blindly implement economic growth-led policies, there is no way to prevent the spread of the COVID-19, which make eventually cause more serious consequences.

4.2 High concentration of population

The compact urban model with high population density is usually considered as an ideal way to maintain urban development, and the sustainable urban development cannot be separated from the trend of urbanization and population aggregation (Srinivasa Rao and Vazquez, 2020). Because of the relative concentration of buildings, people require relatively concentrated use of buildings, which can improve the efficiency of building use, save land resources, and promote the development of green building and healthy building (Zhao, He, Johnson and Mou, 2015). Ultimately reduce resource consumption and energy emissions, promote sustainable development, and achieve SDG 11. However, the high population aggregation is conducive to the spread of the virus and the uneven distribution of social resources.

A. The high concentration of the population helps spread the virus

Most studies have stated that population density is an important factor affecting the spread of infectious diseases, because population density can cause crowds to gather and increase the probability

of spread (Rocklöv and Sjödin, 2020). For example, Wuhan, China, where the coronavirus outbreak first broke out, is the most densely populated city in central China, with a population of 11 million (Zhang, Bin, Yuan and Tao, 2020). Also, in the U.S, New York City, which has a severe COVID-19 epidemic, is the most densely populated city (Courtemanche et al., 2020).

B. Uneven distribution of social resources

New York, U.S. has a detailed plan for SDG 11, and due to the increasing population of New York, New York pays more attention to the planning of housing indicators. Since 2014, New York has increased the construction and maintenance of affordable housing to the highest level in 30 years (The City of New York, 2018). Funded more than 87,500 affordable apartments and houses. At the same time, plans to transform the historic Greenpoint Hospital into 300 to 600 new affordable apartments in the community (The City of New York, 2018). In 2017, New York also announced the 'Elderly Priority ' plan, which is a series of new affordable housing plans to increase the number of elderly housing in the city (The City of New York, 2018). In terms of land planning, it is more from the direction of economic development, the purpose is to promote employment and economic opportunities. However, because it is too biased towards housing and neglects the supporting services of community resources, it causes medical resources and green space resources only meet daily needs. As for the increasing population and housing, medical resources are gradually unable to meet the population growth rate. The government is more focused on the economic benefits of sustainable urban development. For the urban green space, resource allocation only meets people's basic needs for food, clothing, housing and transportation, and ignores high-quality resource allocation. For transportation resources such as the New York subway, more than 5 million people use it a day (The City of New York, 2018). In the face of such a huge flow of people, it ignores how to control the use of subways by people and the sanitation management of public transportation. Therefore, after the outbreak, New York became the hardest hit area, and this contradicts SDG 11.

4.3 Planning and implementation of SDG 11 needs to be adapted to local conditions

Under the background test of COVID-19, the planning and implementation of SDG 11 need to consider more about whether the high economic growth of the city brings good social services? For example, the economic scale and per capita GDP of Wuhan and New York megacities are at the forefront of their respective countries, and also, SDG 11 is taken as the urban development goal. However, through COVID-19, the super shortboard of public health in megacities is exposed (Manheim and Denkenberger, 2020). Therefore, the implementation of SDG 11 can no longer blindly achieve indicators as the only one plan, and also cannot only consider economic growth. Rather, it needs to plan and implement according to local conditions. For example, if population aggregation is reasonably linked to SDG 11, the virus should be effectively prevented and controlled regardless of population aggregation.

A. After reasonable combination with SDG 11, the advantages of population aggregation

The prevention and control of viruses by population aggregation not only has its drawbacks, but also has advantages. Hong Kong, for example, is the most densely populated city in the world, but the current spread of the COVID-19 epidemic is the slowest compared to other countries. The reason is that based on the city's own situation, Hong Kong has formulated a series of prevention programs combined with SDG 11. One of the methods is to make the information of confirmed cases open and transparent. Apart from keeping the name confidential, other personal information is placed online. For example, age, gender, which hospital live in, whether people are a Hong Kong resident or an imported case, or even

where each of them once stayed, stayed in that building, all marked (Cheng et al., 2020). And it has concentrated effective medical resources for follow-up treatment at any time, which has prevented the spread of the virus and prevented the virus from spreading at the source (Cheng et al., 2020). Therefore, population aggregation has advantages in virus prevention and control. Although Hong Kong has always had drawbacks in housing resources, the Hong Kong government is not blindly focused on housing resources planning. This time, through COVID-19, to a certain extent, it shows that in the planning and implementation of SDG 11, Hong Kong has gone through the analysis of its own conditions, which a certain extent meets the average distribution of social resources, such as medical resources.

- **Specific case----SDG11 Facing population aggregation**

If decision-makers can plan and implement SDG 11 according to local conditions, urban population aggregation it can improve the effective management of big data, and population concentration is more conducive to data collection. For example, when there is a serious shortage of medical resources in the outbreak of an epidemic, temporary hospitals can be built in a large city with a large population to alleviate the problem, and information collection can be carried out for the concentrated patients to track the spread of the virus, and more clinical information about COVID-19 can be obtained. Medical personnel in various countries of the world can quickly share information and conduct efficient research. Finally, because of the dissemination and sharing of information, the development of communication media technology has been promoted. Meanwhile, during the isolation period, people in Wuhan, for example, cannot enter shops and medical centers to purchase daily necessities and medical supplies. However, due to the high concentration of population, logistics transportation and express delivery services have established a mature logistics network. Wuhan citizens can still have enough daily necessities and medical supplies to ensure the normal progress of life, and at the same time ease the contact between people during isolation Dangerous. In Melbourne, before the outbreak of COVID-19, Melbourne developed a ‘20-minute neighbourhood’ strategy based on SDG 11 and conducted a pilot (Cristy, 2019). From shopping to health care to sports, almost all the facilities that citizens need is within 20 minutes of walking or cycling. After the outbreak, such measures effectively prevent excessive population movement and facilitate centralized management during the outbreak.

- **Specific case -- SDG 11 facing traffic**

In sparsely populated areas, the mode of transportation prefers the interconnection between pairs (Chinazzi et al., 2020). For example, there are four living areas of A, B, C, and D. When people at point A want to go to B, C, and D, they usually use direct roads. That is, from A directly to B, C, D does not transit through any third place. However, for densely populated areas, such two-to-one interconnection is too inefficient, so it is more the mode of using transportation hubs, such as elevated roads and subways (Chinazzi et al., 2020). At this time, if people want to go from point A to point D, people may choose to go from point A to the nearest transportation hub, such as the nearest subway station or elevated road entrance. Then from the junction near point D to point D. That is, no matter from point A to point B or point D, it is possible to use the same transportation hub. The advantage of this mode of transportation is that if government want to reduce the flow of people throughout the city, government only need to control these transportation hubs. Such as closing the subway, closing the elevated. For the two-to-one intercommunication model adopted in sparsely populated areas, it is necessary to control all routes to reduce the flow of people. Therefore, in the planning and implementation of SDG11, each city needs to refer to the urban population and carry out a reasonable and effective distribution of transportation facilities. It is not to complete the SDG 11 target to blindly expand or shrink public transportation.

- **Specific case-SDG 11 facing medical resource allocation**

Generally, specialized hospitals most exist in cities. The prevention and control of the epidemic requires the support of professional institutions. It is difficult for local general hospitals to play a role in this explosive practice. For sparsely populated areas, there is probably only one hospital in an area. But in cities with dense populations, multiple hospitals can support each other. For example, turning certain hospitals into hospitals that only accept infected people. Therefore, more resource allocation issues need to be considered in SDG 11 planning and implementation. In the event of public health, discussing the governance and service level of urban public health is conducive to a series of urban environmental transformation, public health standardization and the establishment of a disease monitoring system, so that cities have 'vaccines' against viruses and become 'immune cities'. Promote the sustainable development of cities and human beings. To truly realize the effective allocation of medical resources in SDG 11. For Wuhan, due to the sudden development of COVID-19 at the initial stage, there was a serious shortage of medical resources in the early stage. Thus, in the early days of the lockdown of Wuhan, mild and suspected patients were taken home isolation measures, but due to the high contagious nature of COVID-19, it has increased the spread of family aggregation. In response to this situation, the government quickly built a Mobile cabin hospital in early February to centralize the isolation and treatment of mild patients (Sun, Wu and Zhang, 2020). On the one hand, it prevents patients from getting worse, on the other hand, it reduces family transmission. It can be said that the Mobile cabin hospital played an important role in the success of Wuhan's fight against the epidemic. Meanwhile, centralized treatment of patients infected with the virus prevent the virus from spreading to a certain extent and coordinate the resources between the hospitals. Therefore, although there was a shortage of medical resources in Wuhan in the early days, the government quickly concentrated the population according to the actual situation in Wuhan, and innovatively proposed the planning concept of establishing a Mobile cabin hospital, which effectively prevented the virus transmission. The Wuhan government successfully planned and implemented SDG 11 according to local conditions, effectively and timely allocated medical resources.

B. Science and technology assist in the planning and implementation of SDG 11

The relationship between the implementation and planning of SDG11 and technical assistance is inseparable. The sustainable development of city process is closely related to the assistance of science and technology. The development of science and technology needs to focus on urban life and humans' healthy. COVID-19 further proves that the goal of SDG 11 can be achieved in the future, and technological development is a necessary factor. At present, with the development of vaccine, COVID-19 is gradually reduced the threat to human life. But natural disasters of infectious diseases do not have only one classification. They are also changed with the changes of the times and the status quo of modern society to adapt to the new way of life of mankind. Continue to implement low-cost prevention and control strategies, the cost of losses caused by viruses and natural disasters are more serious. The sustainable development of the city and the final realization of SDG 11 are also hindered. Therefore, technological development has become a necessary factor for the development of SDG 11. For example, during the COVID-19 epidemic, firstly, many hospitals in China carried out online medical services and provided free online consultations, which not only reduced the pressure on patients and the risk of cross-infection on the spot, but also effectively mobilized existing medical resources (Shaw, Kim and Hua, 2020). Meantime, the application of artificial intelligence in the fields of medical image recognition, mobile disinfection, drug distribution and temperature measurement inspection can also effectively

improve the utilization efficiency of medical resources. Secondly, many governments have launched 'epidemic prevention and health information code', which is convenient for communities to judge the health status of residents and identify the population to be isolated (Shaw, Kim and Hua, 2020).

C. The pushing effect of green building on SDG 11

Meanwhile, green building is also an important factor in achieving SDG 11. Green building can adapt to the natural environment of each city, and automatically adjust energy to changes in the current environment. And also, green building focus on solutions to improve air quality, especially in densely populated office buildings. The introduction of fresh air into buildings and the function of improving ventilation outside dense communities played an important role in the prevention and control of COVID-19. Therefore, in the large environment of COVID-19, green buildings have played a positive role in preventing and controlling COVID-19. It can be summarized in five aspects (GBRI, 2020): 1. Increase ventilation. 2. Provide basic functions of epidemic prevention. 3. Provide convenience for epidemic prevention. 4. Reduce the risk of infection. 5. Enhance residents' health and immunity. Therefore, green building plays an important role in the real realization of SDG 11 in the future. To a certain extent, it can achieve the sustainable coordination and development with the natural environment and it is conducive to the prevention and control of the virus.

4.4 The case for planning and implementing SDG11 in a local context

A. Management measures based on property management in China

In sparsely populated areas, people's lives are more about managing their own communities, which is enough to meet daily needs. However, in areas with concentrated populations, more efficient methods based on community management are adopted. The characteristic of community management is that professional people do professional things. There are professional staff to maintain the safety of the community. This lifestyle of high division of labor and cooperation naturally forms a community-based rights system. For example, in China, the institution that enforces this right is the Property Management Association. When COVID-19 occurs, this existing system of rights can naturally exert a powerful grassroots control function. For SDG 11, the community's supporting facilities and services are also essential development factors. China implements a top-down and bottom-up mutual supervision structure for community management. The community structure has reached a high degree of agreement with the national government. Meanwhile, residents have a real sense of belonging, identity and responsibility for the community. For the current situation of Chinese cities and the high concentration of population, with the increasing number of 'human to human' cases, community, as the smallest urban governance unit based on space, has become the most important part of local epidemic prevention and control. According to the analysis of the changes in the epidemic situation after the closure of Wuhan, if the community isolation measures of 50% or higher are not taken, even if the travel activities in China are limited by 90%, the effect of suppressing the spread of the epidemic is not be very good (Chinazzi et al., 2020). It can be seen that community management has become the main method for effectively controlling the epidemic in areas with small urban space. Therefore, the level of comprehensive government governance and the epidemic prevention awareness of the grassroots communities are interlinked and are indispensable. This is the 'immune system' that a city or even an area should have, especially for sustainable cities. For the later measures to achieve SDG 11, sustainable development communities and property management companies are also become development strategies, especially for cities with large populations.

B. Establishment of resource information sharing channels

Nowadays, most people obtain information through the Internet. It seems that the Internet has broken the limitation of physical distance. Even if people do not gather together, they can exchange information without barriers. But being able to spread information regardless of distance does not mean being able to spread information unimpeded. Because people now face a lot of information every day, any useful information is easily overwhelmed by other spam, people are more willing to believe that they have physical contact information. Therefore, the news about the epidemic released by people around people may more convincing than the comments made by an expert on the other half of the earth. For example, most people in China use WeChat for social communication and contact, and for the information sent by the WeChat circle of friends, the main body of sharing information is to establish relationships through daily physical distance. Therefore, people generally pay more attention and trust (Lu and Zhang, 2020). The information dissemination on the Internet also gradually relies on these closely connected small circles. Without the close contact of everyone in the physical space, it is impossible to produce an efficient information diffusion channel in the network. Therefore, the establishment of a reasonable resource information sharing channel according to SDG 11 is helpful to the popularization of epidemic prevention and control knowledge and information sharing. At the same time, the government media also needs to conduct a reasonable review of the information, so that the correct information can be effectively spread.

5. Conclusion

Although in the early stage of COVID-19, governments of various countries faced unprecedented challenges in population aggregation, transportation, social resources and policy implementation. Even for those cities that use SDG 11 as a guide for development, there are various problems in coping with COVID-19. These problems include the shortage of medical resources, the shortage of green public space, the obstacles of information sharing and the traffic interruption. But this does not mean that SDG 11 hinder the sustainable development of the city. On the one hand, the governance measures for COVID-19 in Wuhan and Hong Kong, it shows that the planning and implementation of SDG 11 need to be constantly adjusted and supplemented according to the current status of the city. On the other hand, In the fight against the COVID-19 disaster, various city governments have further promoted scientific and technological innovation in the planning and implementation of SDG 11, and improved the government's ability to manage urban big data. At the same time, it makes decision-makers pay more attention to the analysis of the current status of the city, and timely adjustment and innovative management of social resources according to the current status of the city. In the event of an emergency such as COVID-19, planning and implementing SDG 11 cannot focus solely on ensuring economic growth and blindly pursuing indicators. The planning and implementation of decision-makers need to adapt to local conditions. Otherwise, SDG 11 eventually fail to meet the expectations, and even cause more disasters, resulting in more losses.

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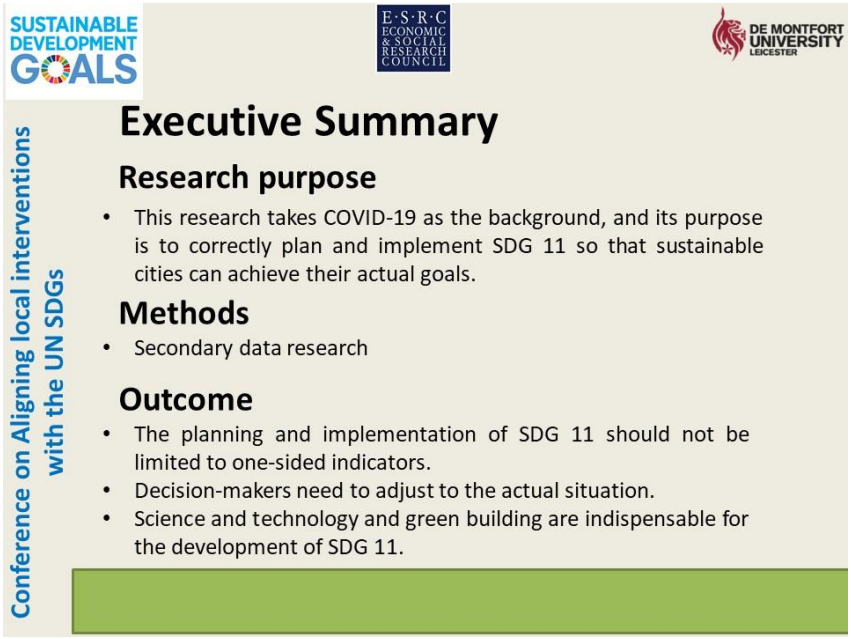
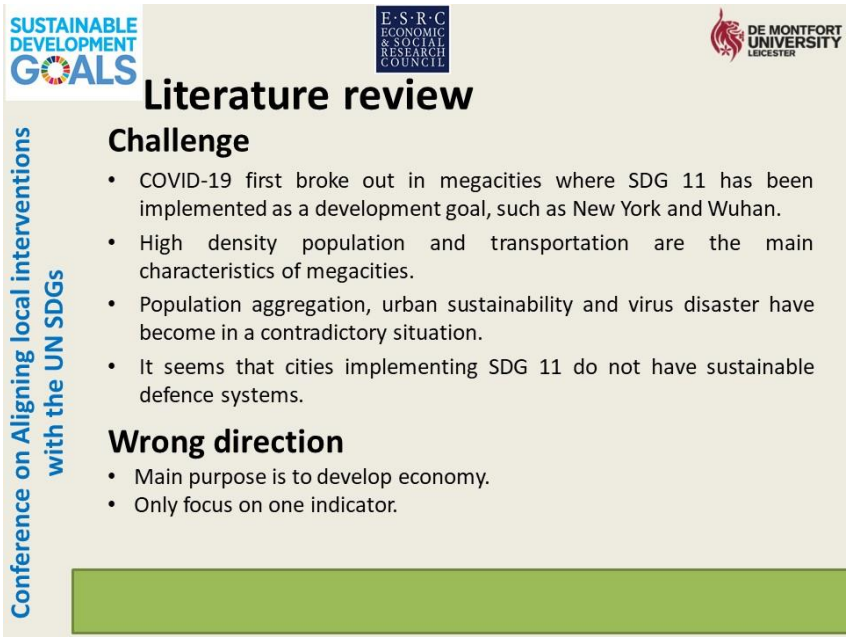
How to properly plan and implement SDG 11 to make sustainable cities meet their real purpose?

By Ling Tian, IESD (on behalf of Ling Tian and Zili Wang)

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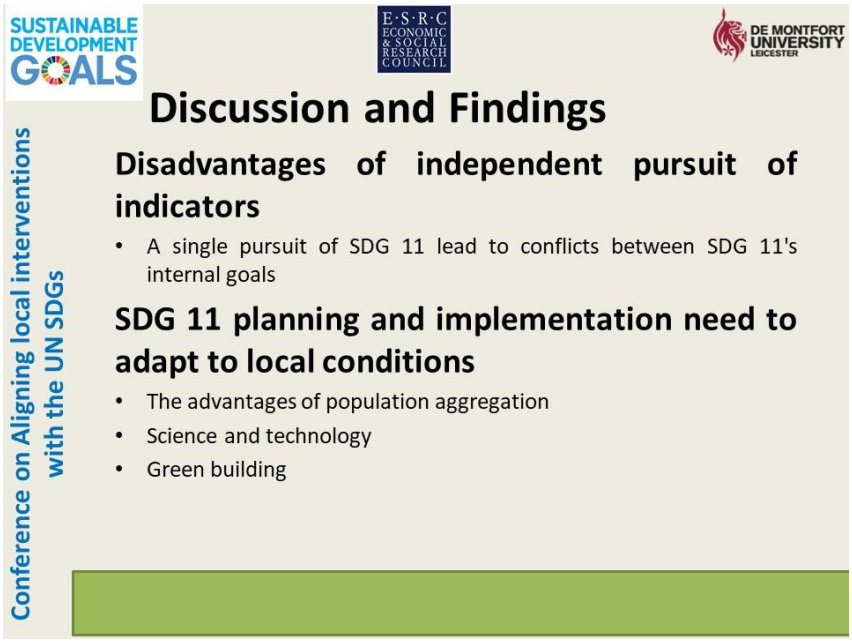
Literature review
Challenge
• COVID-19 first broke out in megacities where SDG 11 has been implemented as a development goal, such as New York and Wuhan.
• High density population and transportation are the main characteristics of megacities.
• Population aggregation, urban sustainability and virus disaster have become in a contradictory situation.
• It seems that cities implementing SDG 11 do not have sustainable defence systems.
Wrong direction
• Main purpose is to develop economy.
• Only focus on one indicator.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Discussion and Findings
Disadvantages of independent pursuit of indicators
• A single pursuit of SDG 11 lead to conflicts between SDG 11's internal goals
SDG 11 planning and implementation need to adapt to local conditions
• The advantages of population aggregation
• Science and technology
• Green building

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Discussion and Findings

Disadvantages of independent pursuit of indicators

- A single pursuit of SDG 11 lead to conflicts between SDG 11's internal goals
  - Reducing disaster losses (COVID-19) and improving urban efficiency (increasing the degree of aggregation)

A. The population is highly concentrated

The cities that broke out first : Wuhan, New York

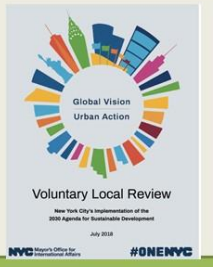
B. Uneven distribution of social resources

New York pays more attention to housing index planning.

-Ignore the allocation of medical resources and green space.

-There are problems in the management of transportation tools.

(New York subway, 2020)



(The City of New York, 2018)

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Discussion and Findings

SDG 11 planning and implementation need to adapt to local conditions

--- Does rapid economic growth bring about good social services?

- The advantages of population aggregation
- Science and technology assist in the planning and implementation of SDG 11
- Green building promotes the achievement of SDG 11

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The advantages of population aggregation

- Hong Kong COVID-19 has the slowest propagation speed. Wuhan is now under good control.
- Reasonable information disclosure, effective tracking of virus infection sources, and prevention of virus spread.
- Logistics and delivery service
- Reasonable medical resource allocation: Wuhan---Mobile cabin hospital.
- Timely control of traffic

(JD.com's "Unmanned Delivery" Robots Assist Wuhan's Hardest-hit Area, 2020)

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Discussion and Findings

Science and technology assist in the planning and implementation of SDG 11

- Implement low-cost prevention and control strategies, the cost of losses is more serious.
- Scientific services according to the concept of SDG 11

China as a case

-Online medical services and provide free online consultation

-Application of artificial intelligence in medical image recognition, mobile disinfection, prescriptions, temperature measurement and other field

-COVID-19 health code apps

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Discussion and Findings

Green building promotes the achievement of SDG 11

- Green building can adapt to the natural environment of each city, and automatically adjust the energy according to the changes of the current environment.
- Green building plays an active role in preventing and controlling COVID-19 (GBRI, 2020):

1. Increase ventilation.
2. Provide basic functions of epidemic prevention.
3. Provide convenience for epidemic prevention.
4. Reduce the risk of infection.
5. Enhance residents' health and immunity.

Discussion and Findings

Cases of planning and implementing SDG11 in the local context

- Management measures based on property management in China

(Wuhan: community life in the fight against the COVID-19, 2020)

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Discussion and Findings

Cases of planning and implementing SDG11 in the local context

- Establish resource information sharing channels

(China Mobile launches community service solutions, 2020)

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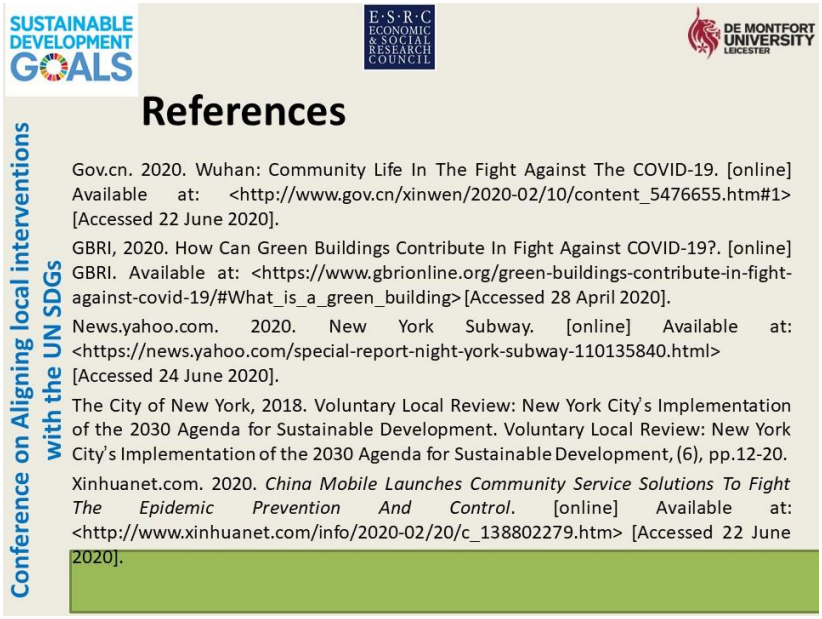
Conclusion
• In the event of an emergency such as COVID-19, SDG 11 planning and implementation cannot focus solely on ensuring economic growth and blindly pursuing indicators.
• Reasonable planning and implementation of SDG 11 further promotes technological innovation.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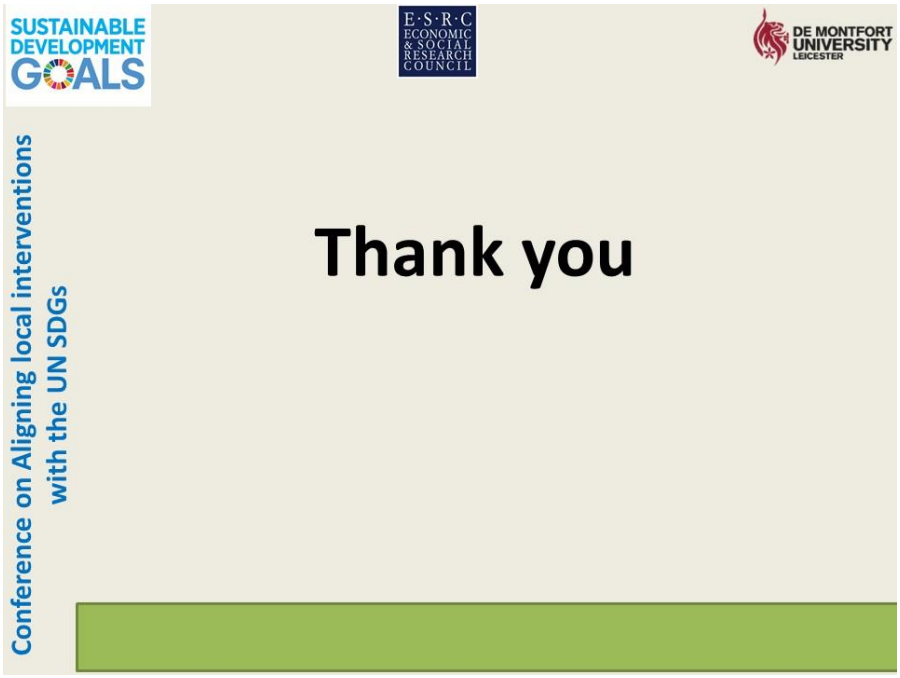
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Thank you