

## Empowering cities: Urban design and planning in countering crises

April 22, 2020

### Speakers



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### Moderator

## The most prominent recommendations

Enhancing the technological infrastructure in cities, supporting the digital transformation program and the strategy of smart cities at a broader scale, given their proven effectiveness during the COVID-19 pandemic.

Addressing the problem of urban poverty, and the related security, health, social and economic repercussions that limit the capacity of cities to adapt during crises; and benefitting from the university expertise and specialized research centers in this regard.

Creating a suitable social innovation lab in every city that deals with innovations and their role in mitigating the effects of crises as they happen.

Reconsidering the design of Saudi housing units, modifying their indoor environment in a way that makes it healthy, especially during viral crises, keeping in mind the human side.



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**countering crises**  
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## Themes:

- **First:** Recommendations.
- **Second:** Urban planning in a modern urban environment: Concept, goals, and basic considerations.
- **Third:** Urban planning in response to crises: COVID-19 pandemic as a model.
- **Fourth:** Technology, innovation, and empowerment of cities during crises.
- Sources and references.

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### Moderator

### First: Recommendations.

- Enhancing the technological infrastructure in cities; supporting the digital transformation program and the strategy of smart cities at a broader scale, given their proven effectiveness during the COVID-19 pandemic.
- Observing the standards of humanizing cities in terms of providing activities for the population. Humanizing cities includes providing economic, social, recreational, technical, and other activities. This is done in a manner that guarantees the well-being of members of society and helps them overcome crises.
- Studying and evaluating the level of performance of the various urban sectors and their role in overcoming the COVID-19 pandemic. Efforts have to be made to avoid deficiencies of planning and design in the policies to strengthen the role of cities and enhance their capacity in crises.
- Addressing the problem of urban poverty, and the related security, health, social and economic repercussions that limit the capacity of cities to adapt during crises; and benefitting from the university expertise and specialized research centers in this regard.
- Reconsidering the design of Saudi housing units, modifying their indoor environment in a way that makes it healthy, especially during viral crises, keeping in mind the human side.
- Creating a suitable social innovation lab in every city that deals with innovations and their role in mitigating the effects of crises as they happen.



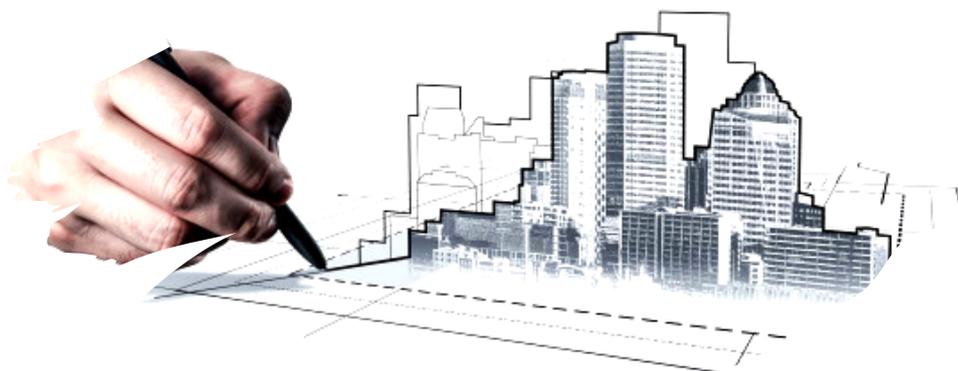
**Second: Urban planning in a modern urban environment: Concept, goals and basic considerations.**

- City planning is defined as "a combination of science and art that aims at organizing, arranging, or using land in an appropriate way, including developing an appropriate report for the network of city roads and streets. This goal is to achieve the greatest benefit and determine the appropriate locations for different activities in the city.
- This also includes choosing the right locations for the lands for the residents to sense beauty and comfort. The use of the old concept of city planning, which is limited to street planning only, should be avoided. This concept is not sufficient to achieve the city dwellers' comfort and welfare and does not add the aesthetic touch to the landmarks of cities.



- The science of planning appeared in the second half of the 20th century, after the effects of destruction spread in European cities due to World War II. The science of planning was not used to repair only what was destroyed by wars, but rather as a scientific solution to the various problems that afflict the city due to the increases in population at the expense of private infrastructure networks.
- This was accompanied by the need to ensure an adequate degree of welfare for members of society. Accordingly, city planning aims at improving the environment to try to find elements of stability and appropriate economic activities, along with working to direct private operations in community development. This is expected to achieve entertainment, comfort, and safety.
- Also, city planning aims at studying the necessary methods to achieve the best investment of the capabilities of cities in a way that suits the needs of the population on the one hand and the resources available on the other. This is in addition to distributing the economic activities that are commensurate with the various city requirements and providing services that are proportionate with the population density in the regions. City planning also finds the necessary elements to raise the population's standards of living and to find the ideal ratio in the living standards of society. In this context, there is seemingly a need to operationalize the building code and encourage the formation of an accurate and unified database for accurate estimation of future housing needs in cities.

- Among the basic considerations to be taken into account in city planning in the modern urban environment are the following:
- .The social reality represented by the nature of social life in terms of prevailing customs, traditions, and culture.
- .The status of nature, which is represented by terrain features and common climate, which entails that the architecture has to be in harmony with the land topography.
- . Achieving harmony of urban architecture between the existing architecture and the new one that is seen nowadays and the one in the future.
- .The necessity of fulfilling the basic human requirements, the most prominent of which are: comfortable and secure housing, economic activity that provides job opportunities for the population, whether in or nearby the city, recreational areas that suit the population's age and their cultural and scientific levels, and the road and transportation network that facilitates the population's mobility between parts of the city and with other cities. There has to be planning for the educational and health community services and infrastructure, according to the approved standards of areas. These services have to be distributed fairly to all residents of the city and to be of high-performance efficiency through the use of the latest technologies in their management.



**Third:** Urban planning in response to crises: COVID-19 pandemic as a model.

- It is expected, according to the UN estimates, that about two-thirds of the world's population will live in urban areas by 2050 under the circumstances of the mysterious outbreaks of epidemics, as is the case with current COVID-19 pandemic. Hence, the importance of urban planning and urban development increases on a basis that takes into account the ability to manage crises and emergencies. Many precautionary directives are easy to apply on the ground whenever the necessary tools and factors combine. Among the most important of these are creating an urban spatial environment, applying precautionary measures and emergency plans in cities. The breakout of the COVID-19 pandemic reveals the importance of city design and planning in a way that helps achieve public health and safety.



- Since ancient history, many cities have been associated with epidemics, such as the plague of Athens in 430 BC, which accelerated in crowded places. Rather, industrial cities in the beginnings of the 19th century until the 20th century were also vulnerable to many epidemics and diseases. There was cholera in New York (1832) and London (1853), the Spanish flu in New York and Mexico (1918), and many other diseases such as measles, smallpox, whooping cough, tuberculosis, and others. From the industrial cities to the modern cities that we know today, epidemics have been able to result in profound policies and changes in urban planning and the health system. The breakout of cholera in the 1830s improved sanitation in London and elsewhere, while the tuberculosis epidemic in New York in the early 20th century paved the way for improved public transportation and housing systems and others. The cholera epidemic led to the formation of the Metropolitan Health Council, which enacted building laws to control overpopulation in different regions. Building laws have also evolved that required many health conditions, such as ventilation, lighting, spaces, etc. The epidemics that swept cities had an active role in the standards we know today for building homes, streets, and parks - the standards that shaped modern cities.

- Among the most important factors that help to strengthen the capabilities of any modern city to respond to emergencies and deal with crises are diversity, urban balance, having multiple options for all spatial aspects, and the provision of high-level infrastructure for services and facilities. The COVID-19 pandemic has demonstrated the need for benefitting from this strong global lesson and reconsider many planning and design trends and policies. This is to strengthen the role of cities and enhance their ability to withstand crises and prepare for them if they occur.
- Urban planning during crises necessitates that planners and decision-makers need to review the planning policies and consider effective alternatives to overcome emergency crises when they occur. There also has to be an emphasis on the need to adopt concepts from a sample of safe cities, healthy cities, and self-sufficient cities, as general planning policies, not just brandished slogans.



- It has become important to take advantage of the COVID-19 pandemic in the management of cities, in terms of planning and organization. We have to draw lessons about the relationship between city design and the speed of epidemics breakouts. Global events have proven even before Corona when the SARS and Ebola epidemics occurred, and this pandemic proves again, the importance of taking care of the issue of managing urbanization and growth in cities and determining appropriate population densities.
- Sustainable urban and regional planning, with its health, environmental, economic, and social dimensions, helps in countering infectious diseases. It also helps with air pollution and infrastructure problems. It is vital also in both the availability and quality of urban transport that may represent a real threat to people's health under the COVID-19 pandemic. This is in addition to being an aid in sewage problems, the provision of healthy housing, lacking services and green areas, and a high rate of irregular construction, which may lead to a high rate of exposure to disasters and the risk of disease. Public health and preventive medicine experts emphasize that citizens' responses to public health rules succeed when they are directed indirectly. That is, they need to be a habitual behavior at the community level. This highlights the role of urban planning in supporting healthy urban behavior through a design that allows the practice of healthy behaviors within the urban sphere in general.

- Indeed, the COVID-19 pandemic has revealed that there is a need to address some of the urban problems afflicting most cities that somehow contributed to the further spread of the COVID-19 pandemic.
- Among the most important of these problems are: achieving a balance in the distribution of population densities in urban areas, alleviating the phenomenon of urban poverty, with the related security, health, and social repercussions.
- Such responsibilities also include addressing slums, areas of low-income housing, and promoting the concept of safe cities. This has to follow internationally approved standards for building the capabilities of cities to face disasters and crises. Further, the role of neighborhood centers in the urban planning system has to be activated in a way that enhances the residents' participation in the service of society. The effort also has to be made to find solutions to ensure the realization of occupational and health safety for workers, whether in the workplaces or places of residence. Here the focus has to be made to expats' housing, with more attention to service sectors, with their operational efficiency raised. However, the role of local administrations has to be operationalized during the crisis. In general, after overcoming the COVID-19 pandemic, there will be a need to adopt a comprehensive national strategy for urban and rural planning, in which all regions have to be safe, self-sufficient, and sustainable. The crises must be faced with a meticulous plan that is developed for every city to give residents a safer style of life.



It should be noted that an important fact emerged during the COVID-19 pandemic which is that urban planning is not only related to the material side of the city and its elements, but it relates to the citizen's participation in the city's production and defining its features and priorities in the post-pandemic stage.

- Among the many lessons that we can learn from the Corona crisis is how to deal with the city more humanely. Also, if we want to develop the city, we must develop the dwellers.
- Urbanization, no matter how real, has no real value except with the presence of man. It is important to work on the humanization of housing, with the same can be said about the humanization of cities.
- The majority of housing in Saudi Arabia is designed in a manner that aims at providing space and uses. During the pandemic, this has proven far away from serving the human factor and the importance of providing a safe and human environment to live in.
- The Coronavirus may be one of the reasons for making a shift in the taste of the Saudi family in the future, not only in the design of their houses, but in dealing with life in general, and thinking about housing as a place for family life and building relationships among its members in particular. This is all the more important given that the present crisis has made people prefer to live in a small apartment in residential suburbs rather than living in a large house in crowded residential neighborhoods. It is important after the pandemic to develop initiatives that modify the indoor environments and improve ventilation, temperature, and humidity, with a positive impact on preventing the viruses, as well as strengthening physical spacing during pandemics.



#### **Fourth:** Technology, innovation, and empowerment of cities during crises.

- To encounter the pandemic, people need to stay at home to preserve their health and prevent the spread of the disease. This led to total dependence on the Internet as the main cornerstone in completing various tasks or works. Rather, it can be said that the Internet has become the cornerstone of city life during the pandemic, especially through the Internet of Things (IoT), which is applied in many countries of the developed world. But the danger arises if this network is attacked with an electronic virus or destroyed for any reason leading to a scenario where the Internet is interrupted so that citizens in those cities will live in complete isolation. This raises the question about the alternatives if this occurs. This makes it necessary to strengthen the technological infrastructure in cities, support the digital transformation programs, elevate the strategy of smart cities more broadly than before, and enhance national security in its technical dimension if the state is exposed to any electronic threats, especially during crises.



- Smart and sustainable urban planning helps resist crises, as is the case in the COVID-19 pandemic, with flexibility, and with integrated, coherent urban planning strategies, plans, policies, and programs at the national, regional, and local levels.
- Smart cities have many elements that qualify them to manage emergency crises, while at the same time making them attractive to foreign investments. Such elements include distinguished urban organization and infrastructure based on artificial intelligence, the educated human element, and clean energy sources. In smart cities, the proliferation of open laboratories, incubators of ideas, and opportunities to benefit from the latest technologies in transportation, communications, management, and living, create a stimulating climate for innovation that creates the space for innovators and entrepreneurs at the technological, scientific, technical and other levels. This supports the concept of comprehensive development. Smart technologies help cities face these challenges with preparedness, response, and recovery for a safer world.

- Digital platforms have played a prominent role as an influential communication tool during the pandemic. It appears that this role will continue because it is safe. Digital technology allows many to continue to manage certain types of companies and operate globally in ways we have never imagined before. The current crisis has created a push for all kinds of digital platforms from distance learning to online shopping. Urban architects and planners should be aware of such new forces that influence the behavior of people all over the world. This is especially necessary during the new era of work at home, where space, production rates, and economic, environmental, and human gains have to be calculated during the design process.
- Despite the high population density of cities, which facilitates the transmission of disease, it can also be home to innovative solutions that contribute to improving the lives of its residents, providing many services to them, and protecting them from infection and other risks.



- In the same context, innovations enabled cities to face challenges and crises. The delivery applications are examples of these innovations that have contributed to mitigating the effects of the current pandemic. Although it was initially resisted by many government agencies, including the municipalities, the Ministry of Transport, the restaurants and stores themselves, we realized its true value during the crisis. Thus, it can be said that crises always involve opportunities for innovation to appear effectively.

- It also includes employing data analytics, artificial intelligence and robots to play a major role in the fight against the Coronavirus. Data analysis and artificial intelligence work to discover drugs, and they help in assessing the spread of the virus, while robots help medical teams carry out their work remotely and safely, something which was not possible previously. There are countless examples of the way these technologies have transformed the global response to the pandemic, including that the demand for robots that test patients with ultraviolet rays has risen dramatically since the outbreak of the crisis. The doctors also used artificial intelligence to check patients, all this led to a wider reflection of the role this technology could play in the future cities. Remote work tools will also continue to grow beyond the Corona pandemic. Likely, any sector that was suffering even slightly in the face of innovation and automation of the city will be severely be affected by the pandemic. Because the governments of the world have benefited from this experience, they are expected to shift their investments in favor of smart cities. Because it will be necessary to better manage unexpected crises after that, the main beneficiaries of those changes are smart governments and companies like Cisco, Microsoft, and Siemens as well as the smart cities emerging across Europe and America.



- Currently, a group of government and private agencies pump millions of dollars in pharmaceutical companies to invent a vaccine for the new Coronavirus. In this context, many different financial models will emerge, such as the public-private partnerships, consumption / results-based models to mitigate the financial crisis, and develop digital infrastructure, including artificial intelligence and the Internet of Things to deal with this pandemic and better prepare for the future. Among the possible ways to confront the COVID-19 pandemic is attention to collecting data describing the current conditions. Such data benefit the decision-makers and artificial intelligence systems alike. The more effective the information sharing, the more people will be able to see the various dimensions of the current situation, and the greater the chances of reaching a solution.
- Also, we have come to need a suitable social innovation lab in every city that deals with innovations and their role in mitigating the effects of crises. The social innovation lab contributes to stimulating the imagination and creativity of the population, spreading positivity and optimism, and sending satisfaction and reassurance to the population towards their city. Through these laboratories, real estate developers and entrepreneurs contribute to seizing opportunities, so that they bear some of the burdens of government agencies, to pursue such laboratories The participatory innovation is represented by the contribution of civil society groups in developing various solutions through organized workshops.

## Sources and references

1. Webinar: Empowering cities: Urban design and planning in countering crises, Asbar World Forum, Riyadh, April 22, 2020, available at [https://www.youtube.com/watch?v=jGb3\\_vT4Vlk](https://www.youtube.com/watch?v=jGb3_vT4Vlk)
2. Taghreed Hamdi Dwai'n Al-Juhani: Urban Planning During Crises: Corona Crisis, April 26, 2020, available at: <Dhttp://www.al-jazirah.com/2020/20200426/ms3.htm>
3. Muhammad Marwan: defining city planning, April 22, 2018, available at: <https://mawdoo3.com>
4. Khalaf Hussein Al-Dulaimi: Basic considerations in city planning, Dec. 25, 2007, available at: <https://araburban.net>
5. Abdullah Al-Fayez: The future of cities is under comprehensive development in neighborhoods and suburbs, available at: <https://araburban.net>
6. Suleiman bin Fahd Al-Wuhaybi: Urban design: A concept that never reflects on our neighborhoods, September 28, 2006, available at: <https://araburban.net>
7. Ahmed Tahir: COVID-19 and the future cities, April 18, 2020, available at: <https://arb.majalla.com/node/85991>
8. Monthly winner: Corona: Smart planning, April 12, 2020, available at: <https://www.alyaum.com/articles/6249477>
9. Khaled Azab: Smart cities are transforming themselves from urban crises, October 16, 2018, available at: <https://futureuae.com/en/Mainpage/Item/4269>
10. Amin Saati: The role of urban planning experts, Nov. 1, 2015, available at: [https://www.aleqt.com/2015/11/01/article\\_1002678.html](https://www.aleqt.com/2015/11/01/article_1002678.html)
11. Muhammad Ali Al-Kurdi: The new Coronavirus and city planning, available at: <http://www.jasminefoundation.org/ar/?p=5195>
12. Wael Zaki: The city during Corona, April 10, 2020, available at: <https://www.shorouknews.com/columns/view.aspx?cdate=10042020&id=dce31363-42c5-4199-b66f-c0ae6785161f>
13. Martina facilitates: Urban resilience, August 26, 2020, available at: <https://www.emergency-live.com/ar/civil-protection/urban-resilience-resilient-cities-plug-in-to-technology-for-response-and-recovery/>
14. Will the epidemic force cities to change their architecture? April 25, 2020, available at: <https://alarab.news>
15. Lama Shehada: Corona and residential space: April 2, 2020, available at: <https://metras.co>
16. Solara Shiha: Urban planning, epidemics, marital status, April 23, 2020, available at: <https://www.aljumhuriya.net>
17. Re-planning the cities after Corona, April 28, 2020, available at: <https://akhbarelbalad.net/ar/1/10/5345/>
18. Ali Raouf: Architecture, and the post-Corona pandemic city: inevitable transformations, April 15, 2020, available at: <https://www.jadaliyya.com/Details/40978>
19. Amer Hassan: planning smart cities in the twenty-first century, March 31, 2020, available at: <https://www.almasryalyoum.com/news/details/1701099>
20. Digitization, artificial intelligence, and human tracking. Technical aspects of Corona rushing in, April 14, 2020, available at: <https://sahafaty.com/news/14093108.htm>
21. Corona blows global creativity with innovations, April 1, 2020, available at: <https://www.albayan.ae/five-senses/east-and-west/2020-04-01-1.3818337>
22. Coronavirus: How did the pandemic demonstrate the cultural traits of peoples? April 2, 2020, available at: <https://www.bbc.com/arabic/vert-cul-52119910>
23. Hamzah Muddathir: This is how the new Coronavirus will fuel the next wave of innovation. March 21, 2020, available at: <https://www.noonpost.com>
24. How does the digital infrastructure help overcome the Corona pandemic? available at: <https://01gov.com/digital-infrastructure-corona/>
25. Human innovation before artificial intelligence to counter the Coronavirus, available at: <https://01gov.com/coronavirus-artificial-intelligence-human/>
26. Fahad Al-Saleh: The response of cities to emergencies and crises, March 25, 2020, available at: <http://www.alriyadh.com/1812337>