

Which Future for Cities after COVID-19

An international Survey



The Survey

The COVID-19 crisis has had significant impacts on public health, on the lives of millions of people, and on economic development prospects at all levels, international, national, and local. All over the world, cities have been at the forefront of the crisis, as first responders to the needs of the population, as managers of the exceptional regulations needed to overcome the situation and as promoters of the reopening and relaunching of economic and social life. The effects of the crisis will be felt for a long time, and this will require innovative responses that will see cities as protagonists.

To initiate a reflection on these trends, an **International Survey** has been proposed, to discuss the **short-term and medium-term impacts** of COVID-19 (2-3 years) in large cities/metropolitan areas.

The proponents of the Survey are:

Francesco Bandarin, Former UNESCO ADG Culture

Enrico Ciciotti, Former Dean, Faculty of Economics, Catholic University of Piacenza

Marco Cremaschi, Centre d'études européennes et de politique comparée, Sciences Po, Paris

Paolo Perulli, University of Eastern Piedmont

Methodology

The Survey was organised in 2 rounds with the following modality:

- During the first round, a questionnaire was sent by the promoters to urban experts from all over the world, with open questions focused on 12 topics that play a significant role in urban economies:
 - *access to services and goods*
 - *transportation*
 - *public spaces*
 - *tourism*
 - *culture*
 - *housing and social services*
 - *health services*
 - *work organisation*
 - *production systems*
 - *consumption*
 - *urbanisation*
 - *governance*25 respondents of the first round provided qualitative answers, with short statements focused on a specific situation of their city/urban context.
- During the second round, the synthetic results (a set of answers to closed questions divided into 12 tables with a focus on “main issue”, “topic”, and “mark”) were resubmitted to the experts. Each participant was asked to validate the synthesis of the first round’s results by giving a score from 1 (minimum) to 10 (maximum) according to the degree of agreement/disagreement with the statements listed in the “topic” section. The “Mark” section refers to the number of the first-round survey respondents who agreed with each topic’s statement.
- The results were analysed by promoters both from the qualitative and quantitative points of view with generic outcomes presented in this executive summary.
- At the second stage, a full specific report with detailed analysis, focused on 20 cities involved in the survey, will be released by the promoters.

Respondents

We would like to express our sincere gratitude to the experts that participated in the survey. Their contributions made this research possible.

- Abdelaali Benchekroun, Researcher in Economics and Development and Artist, Marrakesh
- Donatius Kamamba, Architectural conservator, Lecturer at the University of Dar es Salaam, College of Engineering and Technology, College of Humanities
- Hiroshi Okano, Vice-director of Urban Research Plaza, Professor of Graduate School of Business, Osaka City University.
- Jad Tabet, Expert Member of the UNESCO World Heritage Committee and Vice-President of Patrimoine Sans Frontières, an NGO based in Paris, president of the organisation of Arab architects
- Joan Clos, Former Secretary UN-Habitat and former Mayor of Barcelona

- Jonathan Aronson, Professor at USC University of Southern California, Department of Political Science and International Relations
- Mona Harb, Professor of Urban Studies and Politics at the American University of Beirut, co-leads the inclusive urban governance platform of the Beirut Urban Lab
- Wing Shing Tang, Professor at the Department of Geography at Hong Kong Baptist University
- Zhou Jian, Professor at College of Architecture and Urban Planning (CAUP), Tongji University
- Denis Leontiev, Architect, Co-founder and CEO of Strelka KB, consulting agency at the Institute for Media, Architecture and Design in Moscow
- Weiping Wu, professor of Urban Planning at Columbia GSAPP and Director of the M.S. Urban Planning programme.
- M.Vitor Serra and Teresa Serra, Rio de Janeiro, Urban Development Specialists (formerly World Bank).
- Julio D Dávila, Professor of Urban Policy and International Development and Director of the Development Planning Unit, UCL London
- Neema Kudva, Associate professor of City and Regional Planning at Cornell University, Ithaca New York
- Remy Prud'Homme, Professor emeritus at Paris XII University, visiting professor at the MIT, former deputy director of the Environment Directorate of the OECD
- Kais Samarrai, Senior vice president of the Public Investment Fund, Saudi Arabia, PIF main advisor for the master planning and urban design urban development programmes as part of the transformation plan of Saudi Arabia 2030.
- Alessandro Balducci, Full professor of Planning and Urban Policies at Politecnico di Milano
- Lorenzo Bellicini, Technical Director CRESME RICERCHE
- Nada Al Hassan, Head of the Sub-Regional Maghreb office UN-Habitat, Tunis
- Margarita Greene, Full Professor at the School of Architecture, Universidad Católica de Chile, and part of the Centre for Sustainable Urban Development, CEDEUS
- Michael Cohen, Director of the Ph.D. programme in Public and Urban Policy at the Milano School of Policy, Management, and Environment
- Eric Huybrechts, Senior Architect and Urban/Regional Planner, member of Isocarp (scientific council, France representative), Icomos (working group on Climate and Heritage), Société Française des Urbanistes (Scientific council) and Officer of the Royal Order of Sahametry (Kingdom of Cambodia)
- George Owusu, Professor of the Institute of Statistical, Social and Economic Research (ISSER) and Director of the Centre for Urban Management Studies, University of Ghana.
- Saskia Sassen, Robert S. Lynd Professor of Sociology at Columbia University and Centennial visiting Professor at the London School of Economics
- Kala S. Sridhar, Professor at the Institute for Social and Economic Change (ISEC), Bengaluru, India.

Introduction: the “augmented” city

The panellists developed and assessed over 200 statements reflecting the situations of some 20 global cities. These answers draw an intricate map of the impacts and priorities of the global urban world. In a time where comments seem split equally between fears of an apocalypse and denial of the issue, the central message of this survey is that **things have changed, these changes will be permanent, and cities are the answer and not the problem.**

In fact, respondents reached a consensus position on a few elementsⁱ. Firstly, this crisis exposes cities' and states' limited capacity for epidemic prevention and control. However, cities are not equipped while urban governments are concerned. The limits of our governance system suggest that 'mistakes were made'. Finally, experts also expect that normalcy will gradually return in 2-3 years; yet pandemics may also return.

They also agree that there will be major structural impacts:

- The new, unexpected **expansion of the public sector** due to the need for new actions and mediations;
- The **pandemic is accelerating the ongoing integration between the urban and digital domains**. The increase of telework and working from home is paramount and will impact our homes (for those who have one, with severe consequences for cities in the Global South). Artificial intelligence will increasingly affect urban logistics and communication networks that already operate some techno-infrastructure systems. Public spaces will be involved too, and, in particular, it will be necessary to rethink the time and space allocated to working and learning.

Therefore, the main suggestion is to **manage the transition and invest in building robustness and redundancy into the system**. After Covid-19, cities will need to redesign public spaces, to recycle residential buildings, and to improve technical networks to respond to the increased intensity of use.

Respondents agree that **cities will remain attractive**. In this context, cities have the responsibility for a new alliance between territory and networks, hardware and software, urban space, and underground infrastructure. The recommendations are varied but highlight the need to enhance the public, private and infrastructural domains of the city. The result is a **three times more 'augmented' city** that will be fairer or more repressive depending on the policies that prevail.

Panellists warn that **each city is facing different impacts, shaped by structural issues** such as social inequalities, war, disease, and extreme climate events. In fact, **the crisis is hitting the vulnerable population in informal settlements badly**. Panellists are cautious about radical changes and major innovations that are not likely to affect cities in the same way.

Topics

1. Access to services and goods

A consensus is expressed on the fact that digital technology will dominate the near future as far as access to services and goods is concerned. The main trends identified by respondents are the following:

- (i) There will be a remarkable development in online teaching as well as an increase in online shopping. This will result in new investments in logistics and internet infrastructure.
- (ii) Some negative effects will characterise the coming years, such as an increase in social and geographical inequalities in access to services and the deepening of the digital divide.
- (iii) An economic crisis with possible negative effects on small businesses is very likely, as well as an increase in average consumer prices.

An increase in public intervention in the economy is seen as very likely by many respondents. However, it is to be noted that several respondents believe that the overall effects will be minimal and a return to normal will be observed in the medium term.

2. Transportation

The main trends identified by the respondents are the following:

- (i) Telework, working from home, and artificial intelligence increases will reduce 'compulsory' mobility and make new scheduling of working and learning time necessary.
- (ii) Public transport use will decrease and will require reorganisation, while private transport will increase. New traffic regulations will be necessary. Some new forms of transportation (car sharing, self-driven vehicles) will be enhanced.
- (iii) Increased individual (pedestrian, cycle, scooter) urban mobility will make dedicated traffic lanes necessary.

However, some of the respondents think that the effects will be transitory and do not think that there will be major changes in transportation models in the medium and long term.

3. Public space

The majority of respondents clearly stated that:

- (i) The number of public events will decrease, and social interaction on the internet will increase.
- (ii) Jobs will be permanently affected by the use of the internet, increasing the use of Wi-Fi and bandwidth.
- (iii) The decrease in public events will be temporary, and activities will soon resume.
- (iv) Restrictions of the movement of people will be maintained to prevent infection.

Impacts will vary in each city, and respondents point to the emergence of new uses of open space, new design regulations for open space and buildings, and new patterns of activities in open space.

Some respondents expressed concerns about the survival of economic activities in the public space, and fears about an increase in police control or authoritarian tendencies.

4. Tourism

The main emerging trends in tourism identified by the respondents are the following:

- (i) International tourism will undergo a major crisis, but be able to recover in the long term. Short stay, domestic tourism will replace international tourism in the short-to-medium term. Individual/small-group customised tourism will get a boost. Tourism destinations will see their economic turnover sharply reduced in the short/medium term.
- (ii) Some tourism sectors will suffer more than others, also due to a general cost increase. In particular, the cruise sector and congress tourism will see major reductions in the short and medium term. Airlines (particularly low-cost) will suffer and bankrupt when not aided by governments. Major tourism-related infrastructure projects will be delayed.
- (iii) The accommodation sector (from hotels to Airbnb) will suffer because of the reduction in demand and will be partially restructured. New health regulations will be introduced and become standard practice to encourage tourism.

To manage the crisis, Governments will promote policies to support the tourist economy and to increase the diversification of tourist areas. However, no particularly innovative policies (reconfiguration of the tourism sector, reduction of tourism carbon footprint, etc.) are foreseeable.

5. Culture

The main emerging trends in culture are the following:

- (i) Parts of the culture sector (Museums, heritage sites, and theatres) are facing a major crisis, with a large reduction in attendance of events, a reduction in tourists, and limitations on the use of performance places. Open-air cultural events will partially compensate for the crisis. However, large institutions will be able to survive and restructure in the longer term, especially if supported by government loans.
- (ii) Virtual visits and performances will get a boost and new forms of online art will appear. Social media will gain space in the world of art and cultural performances.
- (iii) Cultural industries and particularly the arts and crafts sector will be severely hit as consumption will shrink and tourism numbers will fall.

Government support is seen as essential to overcome the crisis and allow institutions and individual artists to survive until a new normality can be established. Concern exists about the respect of freedom of expression in a system that will become largely dependent on public funding.

6.Housing and Social Services

While noticing that housing was already a major issue before the crisis, many respondents believe that the housing crisis will become more acute due to increasing inequalities and the weakened position of informal workers.

The main impacts on housing identified by the respondents are the following:

- (i)** Demand for social assistance will increase and access to public services will become more unequal.
- (ii)** In informal areas, social distancing will be nearly impossible to observe, with possible severe health impacts
- (iii)** Due to the crisis, there will be an increase in the number of homeless people.
- (iv)** Work opportunities for people with disabilities and students will shrink.

Despite the crisis, many respondents expect that housing demand will continue to rise, while construction programmes will likely slow down and be either delayed or postponed. This will generate additional market tensions. The crisis on the tourism market (Airbnb) may have a positive influence as many apartments could enter the rental market.

To address the crisis, governments could promote a number of policies, including the following:

- Adopting new regulations and housing standards to include balconies or terraces and larger backyards.
- Prioritising slum upgrade programmes.
- Fostering new solutions for the care of elderly people.
- Granting social protection and unemployment benefits.
- Deregulation and detaxation of land and properties.

7.Health Services

The main emerging trends in health are the following:

- (i)** The crisis has shown the limits of a health system largely oriented towards individual needs and public health policies that have consistently resulted in healthcare budget reductions. There is a need to reform the existing system to address the issue and provide broader coverage to the more vulnerable population. This includes improvement of sanitation in informal settlements.
- (ii)** As pandemics are likely to return, there is a need to invest to improve robustness and redundancy in the health system, as well as public information and education and to extend protective practices. New regulations and practices for public health security need to be introduced, to help to reduce the spread of epidemics.
- (iii)** The production of essential medical material needs to be repatriated and adequate storage established. The monitoring of epidemics nationally and internationally needs to be improved. Healthcare personnel should be compensated for extra work and risks.

The crisis calls in general for new approaches to public health policies, ranging from investments in prevention and response to the more efficient management of the information system related to epidemics and public health.

8. Work Organisation

In the opinion of many of the respondents, work organisation will be severely affected in the short/medium term, with massive job losses and unemployment. The main trends identified are the following:

- (i) the expansion of *non-manual* online work. Hence more broadband infrastructure will be needed in the geographical (less developed countries) and urban peripheries of the world.
- (ii) *manual* work will be deeply affected. Automation, scaling-up machines, robots, and drones will be employed instead of less qualified workers. Social distancing will be impossible in low skilled service jobs. Hence, there will be an increase in social polarisation.

9. Production systems

The emerging scenario will be characterised by:

- (i) A crisis of the globalisation model with the strengthening of national strategic productions and in general, a greater reliance on local firms and possible re-shoring of production.
- (ii) At the same time, new international supply chains and new commercial alliances will appear (for instance as a consequence of Brexit).
- (iii) Teleworking will increase significantly.
- (iv) The demand for logistics and delivery services will increase substantially and these sectors will become the new strategic assets.

In this context, many respondents expressed concern about food security and see this issue becoming more relevant in the future.

10. Consumption

There is a strong agreement among the respondents on the main effects on consumption patterns.

- (i) In the short term, there will be a reduction in consumption, due to the generalised economic crisis.
- (ii) There will be an increase in online shopping, and this trend will continue after the end of the lockdown period.
- (iii) At the same time, there will be a coexistence of new and old models of consumption. Following a small business crisis in the short period, markets will reorganise and there will be space for traditional and neighbourhood shops.
- (iv) Shopping centres are already in crisis and this crisis will continue given the preference for online shopping, on the one hand, and producer markets and personal contact on the other.

11. Urbanisation

ⁱⁱ Many respondents agree that the main threats for cities have a structural nature, due to persistent inequalities, conflicts, diseases, and impacts of climate events. However, most of the respondents think that cities are not becoming unattractive. They see a stable 'business as usual' scenario, where current urbanisation patterns will not be substantially affected and land consumption may even increase.

Respondents, however, point at several matters of concern:

- (i) The current trends for the rise of ‘hipsturbia’ and quality urban suburbs could be reinforced.
- (ii) Increase of sprawl and urban decentralisation, for instance in Latin America and in Northern countries (though with some limitations).
- (iii) The fact that in many countries the density of settlements makes social distancing impossible.
- (iv) There could be a trend to transfer the location of workplaces into less populated areas, with impacts on the job market.

Governments should try to guide these processes by:

- Enhancing the development of metropolitan sub-centres.
- Creating new opportunities for the revitalisation of small cities.
- Providing better management of urban density.
- Adopting the “15-minute” neighbourhood.

12. Governance

No clear trend has been expressed by the respondents. However, these scenarios have been proposed as possible:

- (i) Increased decentralisation of responsibilities to local governments, mayors, communities, and neighbourhoods (although so far decentralisation has not been efficient).
- (ii) Increased collection of personal data, to map and predict outbreaks. This could, however, increase privacy concerns.
- (iii) The increased role of civil society organisations.

Coordination among different scales of government and redesign of emergency response infrastructures rank high among the governance priorities.

Policy implications

From the Survey, the current crisis of globalisation emerges, due to the pandemic but also to previous contradictions and imbalances in global value chains and world relations. A “creative destruction” of the received model could be the outcome, as the need for change is a widespread belief among respondents.

In which directions? The necessary reference point is represented by the Sustainable Development Goals (SDGs) adopted by United Nations Member States in 2015. In particular the Goal 11: Make cities inclusive, safe, resilient and sustainable, and its specific objectives. Here we find precise relationships to the new trends mentioned in the Survey, such as:

- adequate, safe and affordable **housing** and basic services; sustainable **transport systems**; inclusive and sustainable **urbanisation** and participatory, integrated and sustainable **human settlement planning**; protection and safeguard of **cultural** and **natural heritage**; attention to **air quality** and **municipal waste management**; integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, and **resilience to disasters**.

The **global approach centred upon cities** is the novelty. Cities are the main collective actors of the living, working, consumption conditions of the world population. No Western or Eurocentric approach is compatible with such evidence. The global need of cities is to overcome the divide between developed and developing nations, which has been exacerbated by the pandemic.

The **world inequalities** are growing in many respects and cities are the mirror of such an unequal world. How to react to the risks of a new divergence is the main objective of the following policy recommendations emerging from the Survey.

Starting from the previous analysis it is possible to identify the elements characterising a **new urban global policy** for recovering from Covid-19 according to a sustainable development approach. In a nutshell, they can be summarised as follows:

a. Greater orientation towards the internal market and the new needs of citizens.

Housing, culture and leisure, health and social assistance, energy and the environment, mobility, and logistics are the principal sectors towards which new investments must be addressed. Part of these has been strongly influenced by Covid-19 both in negative terms (e.g. loss of employment and crisis in the fields of commerce, culture, leisure and construction, tourism, transport) as well as in positive terms, with the development of new markets in the face of growing demand (health and social assistance, sustainable mobility and urban logistics, digitalisation). An important innovative aspect of the new policy is represented by the need to overcome the exclusively technological and sectorial approach followed by previous “smart cities” policies, favouring the matching of demand and supply of new technologies and the diffusion of strategic integrated planning also thanks to the circulation of good practices.

The sectorial/vertical approach, i.e. on the side of the supply of technologies, must be integrated with the horizontal one, on the demand and social needs side. In this context, the city, as a complex system, is able to operate a new synthesis in a circular relationship between supply and demand that feeds itself virtuously.

b. Integrated urban strategic planning policy at the local level.

The legitimacy of policies, which also focuses on the internal market, requires the involvement of final users and recipients of innovation policies, moving from the triple helix to the quadruple helix (Institutions, Research, Business, Civil Society). The quadruple helix, highlighting greater cooperation in innovative activities, represents a clear turning point towards a policy for systemic innovation, open and focused on users. This marks the passage from a production of goods and services led by economic-technical experts according to a top-down model, to different forms and levels of co-production with consumers, customers, and citizens.

This approach implies a strategic and integrated urban planning in order to promote systemic innovation both in developed and developing cities. In both cases, citizens' needs and voices should be included and creative solutions to informal growth of cities should be developed. The pivotal role of universities in producing and spreading innovation and the network of knowledge producers interconnecting cities of North and South of the world are key components of the policy.

c. The governance model based on the bottom-up approach centrally integrated.

The use of bottom-up approaches must be underlined, considering the limits that place-based policies have encountered in terms of planning and management capacity in the case of complex initiatives. It is therefore appropriate to aggregate local demand at regional and national scales to achieve the appropriate economies of scale in the production of new goods and services. Cities must operate according to the logic of sustainable development from the economic, social, and environmental points of view centred on bottom-up governance models, framed in national and continental strategic frameworks. In this way it is possible to select the markets/sectors considered strategic; to aid in the design and financing phases, and to integrate individual projects according to the logic of world cooperation and international synergy networks.

ⁱ A consensus position corresponds to an aggregate assessment either higher (class 1: almost all agree) or lower (class 5: almost all disagree) than the thresholds of 8.3 or 3.3 out of ten (the average note of 5.8 plus or minus a standard deviation of 2.5). Average agreement (class 3) corresponds to the mean plus or minus half standard deviation (<7 >4.6). The last two classes correspond to most agree (class 2: almost all <7 >8.3) or most disagree (<4.6 >3.3).