MORGENSTADT GLOBAL SMART CITIES INITIATIVE
GLOBAL APPROACH – LOCAL SOLUTIONS

University of Stuttgart
Institute of Human Factors and Technology Management IAT

Fraunhofer

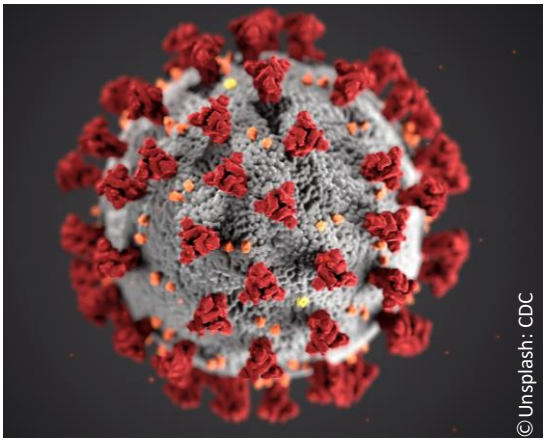
On behalf of
Federal Ministry for the Environment, Nature Conservation and Nuclear Safety
of the Federal Republic of Germany

Morgenstadt Global Smart Cities Initiative

LINKING COVID-19 RESPONSES TO CLIMATE ACTION – REFLECTIONS FROM INDIA, MEXICO, PERU AND GERMANY

Author: Sophie Mok

On July 30th, the MGI consortia held an interactive workshop session on linking COVID-19 response to climate action. 26 participants from India, Mexico, Peru and Germany attended the session and shared their insights and experiences. Individual presentations from different project partners as well as two interactive sessions with the tool MURAL were used to collect the input. The following section summarizes the key discussion points and statements from the session.



There are many parallels between the climate crisis and the COVID pandemic - and with those a potential to learn from the experiences made, find synergies in how to respond, and use the current momentum to facilitate green change. The recent reduction in fossil fuel consumption due to lower industrial activities and reduced travelling has led to improved air and environmental quality in many cities. Public space and nature has experienced different use and behaviour patterns and local communities, food, products, and leisure activities have gained in value.

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LINKING COVID-19 RESPONSES TO CLIMATE ACTION

On the other side, the COVID crisis has increased budget constraints and social problems like strong increases in unemployment, which might pose challenges to future climate adaptation and mitigation projects. It has shed new light on problems such as inequality, corruption and low resilience of certain sectors and districts. Especially informal economies and poor regions with lacking access to basic services show low abilities to cope with and adapt to risks (in the case of COVID-19 by staying at home or implementing sanitary and social distancing measures). Moreover, cultural and social challenges arise with many people having to suddenly deal with new routines and strict regulations, adapt to remote working and home schooling, as well as the restrictions in meeting friends and family – behavioural changes and limitations, which have not been imaginable at the beginning of the year. Behind this background, this summary reflects on different aspects of urban planning in pandemics and climate crisis, and highlights different levers and intervention areas, which could help tackle both - the Corona as well as the climate crisis.

Table 1 shows the key sectors which were identified as the most impacted ones among the MGI cities. Many of these correspond to the key sectors of the MGI city labs and set the scene for the reflections that follow:

Sector	COVID-19 impacts
Mobility*	less person transport, no connection between different regions in the country, increased local retail and logistics, shift from public to private transport modes
Tourism	travel warnings and restrictions, impacts on the cultural industry and gastronomy, huge financial and job losses.
Health	pressure on existing health infrastructure and personal, up to the level of hospital collapse
Economy	unemployment growth, role of informal economy, increasing rate of homeoffice
Education	closure of education institutes, homeschooling, remote schooling
Energy*	lower industrial production and consumption, increased electricity consumption in residential areas
Water*	increased demand for water, impacts on water infrastructure and management

*Table 1: Most impacted sectors in the MGI cities Kochi, Saltillo and Piura. *Sectors addressed in MGI city labs.*

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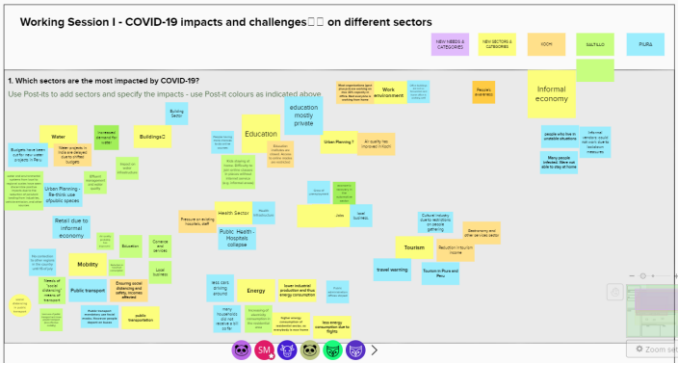
LEVERS

KNOWLEDGE AND EDUCATION

Knowledge-based decision-making is central, especially in crisis management. To achieve this, reliable information and knowledge is needed. Furthermore, transparency and knowledge sharing amongst all actors and citizens is seen as key to build trust in science and the resulting policy measures. In the context of COVID-19 this can relate to the trust in medical advice and lockdown as well as hygiene measures. With regards to climate this may refer to climate science, projections and policies. Thereby Education and awareness raising activities have to be targeted at different audiences and population groups and deploy various channels and stakeholder contributions to limit the amount of people who deny the presence of COVID-19 or climate change. On the other hand, new forms of education and knowledge sharing (such as digital tools) are an important new asset to limit and cope with risks such as pandemics, climate change, natural disasters and foster international cooperation. The case of India has also shown that previous experiences and knowledge in dealing with virus and diseases' outbreaks has helped enormously to be more prepared and start soon with a broad test and tracking strategy in this case. The same holds true for experiences with climate risks and hazards, as flooding.



STAKEHOLDERS AND STRUCTURES

Collective action and response is crucial for good crisis response. This means identifying key stakeholders across all departments, as well as involving academy, government, private companies and citizens in related actions and decision-making. Credible politicians, stronger local government structures, as well as improved communication and coordination between stakeholders from state and municipal level are required to achieve this. This may be strengthened through better technology access, increased transparency, and co-creation platforms where multi-stakeholders can plan together. The city of Saltillo has for example been recognized as one of the best Mexican cities in managing the pandemic, which also comes from its strategy of close collaboration with other municipalities nearby. In August 2020, the University of Piura has organized a similar digital interactive working sessions named "CO-VIDA" where different local actors were invited to co-identify important next steps for the post-COVID development in Piura.

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LEVERS

POLICIES

In terms of policies, better response strategies can be enabled by smart governments, stricter control mechanisms, and less bureaucracy in the public sector. In the context of the COVID-19 situation in the MGI cities it was named that especially policies which ensure hygiene and social distancing, promote (green) employment, and support of new ways of working and living such as home office are currently most needed.

FINANCING AND RESOURCES

Investments in water and sanitary infrastructure to improve public hygiene have been named as important lever to combat COVID-19, alongside with the provision of sanitizers and drinking water, especially to informal settlements. Furthermore, low budgets in the health sector have been identified as important challenge. Lastly, financial aid and economic relief plans should be focused on supporting and creating more sustainable projects and structures, which could help achieving long-term benefits and contribute to greener and more resilient urban systems for the future. However, it has been stated that financial programmes often focus on fast recovery to go back to "business as usual", which is a lost opportunity for sustainable transformation.

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DIGITALIZATION

Both in terms of pandemic crisis, as well as climate change mitigation and adaptation, digitalization can be a great lever. A better ICT infrastructure is perceived as important opportunity to better connect different sectoral solutions, facilitate response mechanisms and build knowledge and capacity. For this potential to become reality, broad connectivity, access to the internet in all regions, as well as more widespread literacy on how to use digital tools and methods has to be established. Digitalization strategies in municipalities and public services can be an important first step in that direction. Also, sector-based solutions, such as digitalizing public healthcare systems, monitoring of water availability and quality, as well as supporting remote working and digital income activities have been named as promising opportunities.

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INTERVENTION AREAS

STRONG COMMUNITIES AND NEIGHBORHOODS

Strong communities and neighborhoods play an important role in risk and disaster response, both due to pandemics or climate hazards. They can be part in implementing and maintaining adaptation measures, as well as to spread important information and take care of vulnerable groups. In all three MGI cities, the presence of local community leaders or networks (on neighbourhood and ward level), has helped to strengthen communication and joint actions on the local level, as well as in representing local communities on the municipal level. From an infrastructural point of view, the (multifunctional) use of streets and open spaces for public activities, as well as the presence of local and decentralized supply structures (small shops instead of large shopping centers) are seen as beneficial for building strong communities. Furthermore, digital tools such as communication groups via WhatsApp or community platforms as "Nebenan" in Germany can help in connecting people.

CYCLING AND WALKING

Cycling and walking are among the most climate friendly mobility options, at the same time they allow social distancing and avoidance of closed rooms during pandemic situations. Under the COVID situation many cities have used the opportunity to implement temporary biking lanes to encourage the uptake of environmentally friendly and safe transport means, as for example Berlin, Brussels, Milan, and Columbia. Other measures named included the introduction of bicycle taxis and a general redesign of cities to shorten travel distances.


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SAFE AND ATTRACTIVE PUBLIC TRANSPORT

Improved and attractive public transport (e.g. in terms of reliability, capacity, cleanliness, hygiene and safety) is important to incentivize climate-friendly mobility behaviour.

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INTERVENTION AREAS

Many of these aspects become even more important and conflicting during pandemic situations, as people start avoiding public transport. Here safety aspects need to be ensured, e.g. how to achieve social distancing and hygiene through measures like mandatory facial masks. Different cities and countries have taken these aspects up in their public transport strategies and developed good practices, such as the Netherlands, Madrid and Dublin.


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LOCAL PRODUCTION AND URBAN FARMING

Maintaining a robust system of local food and resource production can help cities become more self-sufficient and resilient in times of crisis, as well as reducing emissions and environmental footprints from global supply systems (transport, waste, etc.). The COVID crisis has increased the attention and demand for local products and regional supply strategies, which may be an important catalyser for creating and strengthening local value chains in the long run. Food system analysis, rainwater harvesting, open-air markets, terrace and organic farming, as well as emerging technologies like vertical farming and aquaponics have been named as measures, which can contribute to more resilient local production and supply structures.

MULTIFUNCTIONAL PUBLIC GREEN SPACE

High quality green spaces are an important measures for cities to mitigate climate risks (such as flooding or urban heat islands) and at the same time improve liveability and attractiveness. Additionally, green spaces help to reduce air pollution, heat stress, and the related vulnerabilities and health risks. During the lockdown, when most indoor activities were restricted, many cities have noted an increased demand for and pressure on public green space. This may increase the priority of recovering green spaces and implementing more green infrastructure in the future. Furthermore, the creation of more multifunctional places with a higher quality, safety, and attractiveness would be a desired positive result.

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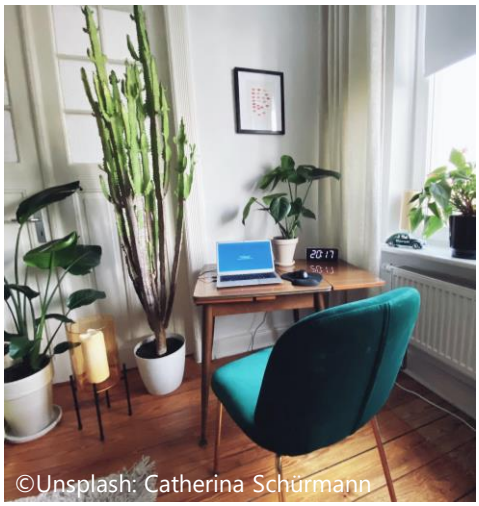
INTERVENTION AREAS

HOMEOFFICE AND NEW FLEXIBLE WORK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COVID-19 has severely restricted the range of movement of people during the lockdown. Solutions such as home office and home schooling evidenced that in many sectors much of the work at the office could be done from home. Video conferencing and other forms of digital work have quickly evolved, become mainstream and proven their suitability, which could make permanent presence unnecessary in some sectors. Imagine new neighborhoods or district in which people could work more from home or in closer co-working spaces between grocery stores, hairdressers, snack bars and cafés, to avoid excessive commuting and business travels.
The emergence of office space at home or flexible working spaces, as well as the growth of online activities and digital tools, and contracts that allow for new and flexible arrangements (e.g. working a few days a week in the office and the rest from home) could contribute to this trend. When planned well this can reduce excessive energy consumption and travel needs.

The MGI consortia will further exchange and join forces on these issues in upcoming capacity building activities (as webinars), workshops and the exchange with the wider Morgenstadt network.

Morgenstadt Global Smart Cities Initiative
PARTICIPANT LIST

Institution	Participant Names
Fraunhofer IAO	Trinidad Fernandez, Sophie Mok, Nina Van den Daele
Fraunhofer IGB	Marc Beckett, Diego Eufracio Lucio
Fraunhofer India	Aditya Fuke
Fraunhofer ISI	José Antonio Ordoñez
IMPLAN	Xanin García, Carmina Villareal
ITESM	Eduardo Santillán, María Elena Huertas, José Ignacio Huertas, Mónica Cruz, Antonio Mogro, Oscar Serrano
Municipality of Piura	Pierre Gutierrez
NIUA	Ghosh, Anna Brittas
UDEP	Stella Schroeder, Gisella Hernandez Valle, Edsmilda Martínez, Edson Atarama
University of Stuttgart (IAT)	Markus Schwegler, Catalina Diaz, Sonja Stöffler, Ana María Vivas