
EXPERT COMMENTARY

Citizen-centric investment and development will empower communities to rebuild more sustainably post-covid and to respond to new opportunities emerging from the shifting global economy, writes InstarAGF's president and CEO Gregory Smith



Infrastructure needs to think local

As covid-19 infection rates climb in North America and globally, we are still struggling to grasp and absorb the impact the pandemic will ultimately have on all facets of our economy and way of life. As the status quo unravels, the scale of this challenge calls for great innovation and humanity in how we revitalise and empower our communities.

Studies show that situations of acute stress can lead to greater and more positive cooperative, social and generous behaviour – effectively, deeper human connection – in times of crisis. Decades of research suggest that social connection is a fundamental human need linked to psychological and physical health, and is especially important in

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stressful times such as these to balance our sense of vulnerability and loss of control over many aspects of our lives. Such connection is responsible, at least in part, for our collective survival as a species. It is also the lifeblood of community resilience, particularly in this time of physical distancing.

From a broader economic perspective, connectivity, which includes transport, communications, energy and water networks along with associated trade and supply chains, is a

defining attribute of the modern era, with the ability to increase interactions, productivity and opportunities. This connectivity creates a profound interdependence that links and integrates communities, economies and citizens, often for the better, yet at once makes us more vulnerable to cascading failures. A 2015 study of more than 350 metropolitan areas in the US examined economic interdependence and how these cities fared during the global financial crisis of 2008, finding that the most interdependent cities experienced greater declines in economic performance and took longer to recover than less-integrated areas.

With the pandemic, the benefits and

consequences of our interdependence have never been more starkly apparent and will undoubtedly lead to permanent shifts in political and economic power in ways that are not yet fully evident. The imperative to ‘recover better’ to forestall and mitigate similar risks to our future must balance the strengths of global interdependence and the dynamism and opportunity it can bring – even as globalisation itself will transform – with a deeper sense of local community and connection that appears to be taking hold in response to our current crisis. Although the concept of resilience is sometimes difficult to define and quantify, it opens up a new avenue for thinking about persistent problems. Resilience is not a single thing or quality but rather a system of myriad activities, decisions and infrastructure that help people and communities to thrive.

As urbanist Jane Jacobs observed, when distance and convenience sets in, the small, the various and the personal wither away. Localising infrastructure investment and development, as part of stimulus planning initially and over the next decade, is increasingly central to our ability to future proof our economy, preserve and enhance the vitality of our communities, and improve socioeconomic equality and equity.

Communities in North America, for example, need a full range of economic tools to recover from the crisis, including access to capital for infrastructure improvements and the ability to form innovative partnerships that leverage local know-how and opportunities to spur business growth, create jobs and ensure safer, more liveable neighbourhoods. This is a rare moment in history for our generation, and all those to follow, with three calls to action for smarter infrastructure to get past the present.

Take a more holistic approach

‘Systems thinking’ is increasingly crucial to understanding, and ultimately addressing, the economic, social and

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environmental challenges our communities face. Collaboration is needed now more than ever to engage and reimagine how people work, live and move, and how such patterns may evolve post-pandemic. By merging a systems-thinking approach with infrastructure planning, we can unlock new collaboration across sectors and categories that encourages decision-makers and other stakeholders to think more holistically about the new forms of energy, mobility and communication that will shape our world.

How does our essential community infrastructure – data, transport, power, digital, water and waste management, food supply and public space – interrelate and work effectively and synergistically over time on a local or regional basis? How does it intersect with ecology, land and social systems, and demographic trends? How does it link a community to larger, more centralised or global systems?

A systems mindset helps us think more critically and broadly about how infrastructure actually serves the needs of the community and how it can be more flexible and responsive to disruption and uncertainty.

There is significant room for creativity and impact at a community, neighbourhood or even a distributed individual building or structure level, such as closed-loop networks for energy, water, waste and food, for example, and new forms of mobility and related infrastructure arising from electrification and decarbonisation.

Buildings can be retrofitted or repurposed to improve cultural and social spaces with community gardens or vertical farms that further green goals while enhancing food security and conserving water.

Preparing for the future also means considering how the natural environment can serve an individual location’s unique infrastructure goals. Green infrastructure initiatives can include: urban forests and woodlots; bioswales, engineered wetlands and stormwater ponds; wetlands, ravines and riparian zones; and green roofs and walls, among others.

Combining such elements, which are core to a more holistic infrastructure approach, addresses a specific infrastructure need while tangibly enhancing air and water quality, improving biodiversity, enhancing the overall appeal of a city’s architecture and creating new economic opportunities.

Focus on what matters most

Localising infrastructure design and development can empower communities to define and capitalise on new economic and social prospects while better protecting the most vulnerable segments of our society from future upheavals. A local, citizen-centric approach to infrastructure planning and management directs focus to how

infrastructure systems make residents feel and whether there is equity in access to essential infrastructure services, and thereby social and economic opportunity. This represents a shift away from traditional approaches that tend to focus on performance primarily against purely technical, operating or financial metrics.

Communities are made up of a diverse, interdependent mix of institutions, assets and systems, and require infrastructure solutions that are cost effective, adaptable and multi-purpose to serve the varied needs of people and the environment.

The localisation and decentralisation of key infrastructure systems offers the potential for communities to realise a range of resilience outcomes spanning the environment, economy, health, wellbeing and equity. Approaching infrastructure from an integrated perspective with multiple outcomes in mind over the short and long term invites a more diverse coalition of partners.

This concept of integration is at the heart of a recent report by C40 Cities, an international coalition of urban leaders focused on fighting climate change and promoting sustainable development, on how to plan for a greener, more just recovery, including a recommendation for ‘15-Minute’ cities where citizens can meet all their work, shopping, social, recreational and cultural needs within a 15-minute walk or bicycle ride.

This progressive concept, which prescribes more renewable energy investment, energy-efficient buildings, improved mass transit and micro-mobility, and new green spaces, contrasts with long-dominant urban planning models that separate residential areas from business, retail, industry and entertainment. The ‘15-Minute’ model decentralises city life to support stronger economies, more vibrant neighbourhoods and a distinct sense of place that is more inclusive and accessible.

Adversity defines our character and helps to bring focus to what matters

most. In the post-pandemic world, infrastructure will be less about conquering the physical environment and more about adapting to our landscape, realities and very human needs to create a more connected and robust public realm that unites rather than divides.

Strengthen the social contract

The pandemic has shaken and shifted the social contract that exists between governments and citizens, businesses and their stakeholders, and infrastructure owners and operators and the communities they serve. For governments and the private sector alike, there are powerful lessons to draw and apply about how infrastructure done well can encompass and express the values, history, culture, economy and geography of a community.

Historically, infrastructure has too often intentionally served as a tool of discriminatory policies and racism to disenfranchise neighbourhoods or to create social and physical separation

from community spaces. The interstate highway system in the US, for example, intersected communities in a manner that separated minority neighbourhoods, or in some cases destroyed them altogether. ‘Redlining’ housing maps commissioned by the US federal government in the 1930s were critical to decisions of where and what type of infrastructure, lending and housing each neighbourhood of each major city would be able to receive. The scars and effects of such decisions persist to this day.

The infrastructure of tomorrow must learn from past injustices to build greater social equity with more participation from marginalised neighbourhoods and inclusiveness in conceptualising, designing and delivering high-quality infrastructure. It must be owned by the people and community at large and work for their interests and benefit, first and foremost.

Participatory budgeting, undertaken in New York and Paris and supported by technology, is a civic innovation that empowers citizens in their communities to be more active participants in ideation, governance and decision-making across a range of themes.

Private infrastructure investors must become part of the local community, engage with residents first around goals, and then design projects with their needs and aspirations top of mind. Such inclusiveness is both a means and an end, and a key contributor to overall resilience.

The pandemic is a powerful reminder of our common humanity and that we are only as secure and prosperous as the least secure and least prosperous among us. It has also created an atmosphere in which fundamental change suddenly seems possible, if not absolutely imperative.

Rethinking and investing in our local infrastructure, with its capacity to transform a community’s prospects and opportunities, is indispensable to our recovery and social fabric. And our future starts not tomorrow, but today. ■

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