

Event details

Title **Business Unusual for Resilient Urban Infrastructure**

Date 25 February 2021

Speakers

- **Manoj Sharma**, *Asian Development Bank*
- **Alexander Nash**, *Asian Development Bank*
- **Kerrie Burge**, *Monash University*
- **Matthew Savage**, *Oxford Consulting Partners*

Moderator **Vivian Castro-Wooldridge**, *Asian Development Bank*



Source: RISE Project, Monash University.

Overview **Accelerating New Ways of Advancing Resilience of Urban Infrastructure**

The objective of the webinar was to discuss opportunities to accelerate resilience-building in urban infrastructure development through sharing of new approaches, supported by examples, particularly those that are ready to be mainstreamed. The Asian Development Bank's (ADB) Urban Sector Group first set the scene, followed by presentations from three guest speakers comprising ADB operations staff and expert practitioners. Examples were drawn from projects financed by ADB, including initiatives and pilots under the Urban Climate Change Resilient Trust Fund (UCCRTF). Breakout sessions followed for a focused dialogue with participants, then a closing plenary to sum up the group discussions. Polling of participants identified nature-based solutions as the area where planning capacity is currently weakest.

Manoj Sharma set the scene for **resilience of urban infrastructure** by reminding participants that 55% of Asia-Pacific region's population will live in cities by 2030, and that the region is home to 6 of 10 of the world's most vulnerable cities. Required investment in urban infrastructure is estimated at \$1.7 trillion per year.¹ Urban infrastructure must be made resilient to meet not just the host of challenges presented by rapid urbanization, but also in the context of uncertainties presented by imminent climate change and growing disaster risks, and the "new normal" introduced by the Covid-19 pandemic.

Alex Nash spoke on **risk-informed planning** and noted that such approaches are more about process than destination. That is, a good plan is one that adapts to new information and is "resilient" to the information being imperfect--important in the context of climate uncertainty and the multi-dimensional nature of associated risks that need to be tackled.

Kerrie Burge discussed the role that **nature-based solutions** (NbS) play in making urban infrastructure not only resilient but also inclusive and sustainable. She focused on the needs of disadvantaged urban communities, specifically those not reached by conventional city-built infrastructure (including water supply, sanitation, and drainage). She used as an example the Revitalising Informal Settlements and their Environments (RISE) project in Indonesia, which is working with informal settlers. Kerrie stressed the importance of direct community involvement, that is, as co-designers and co-implementors of the project themselves. Communities bring in indispensable local knowledge that help to inform nature-based solutions in ways that fit the context and, hence, are more effective, cost-efficient, and sustainable.

Matt Savage talked about **measuring the benefits** of investing in urban infrastructure resilience. He used as case UCCRTF's work on examining the economics of urban resilience, which aims to build a sound business case drawn from country and local-level studies. Citing lessons from Bangladesh, he noted that resilience investments in two project municipalities there have shown positive economic benefits results, in this case through reduced damage from Cyclone Amphan which struck in 2020. Matt cautioned that the economics of resilience-building is an inexact science and is especially challenging in the context of climate uncertainty unfolding in parallel with other urban risk drivers, notably rapid population growth and growing vulnerabilities.

¹ ADB. 2017. *Meeting Asia's Infrastructure Needs*. Manila.

Key Takeaways

1. **Infrastructure resilience requires high levels of social capital** (public awareness, capacity, preparedness). As climate and disaster risk is multidimensional, aim for multifunctionality of urban infrastructure with a variety of back-up elements for resilience and strengthening of social capital.
2. **Proof of NbS concept is needed to increase government buy-in.** Pilots are helpful to achieve scale, preferably where initiatives are embedded within a larger program involving a network of partners (inter-disciplinary practitioners, university-based researchers), actively supported by communities as co-designers and implementors, and championed by local government officials.
3. **NbS should not be associated with “cheap” solutions as compared with traditional investments.** The costs should be cast within a broader accounting and narrative of its real benefits, direct and indirect, including community empowerment.
4. **Resilience-building cannot be set apart from its institutional context,** particularly the importance of enabling policies and institutional environment.
5. **There is need to move away from a sole reliance on economics towards a more holistic assessment approach** that, for example, captures vital institutional and structural considerations. Multicriteria analysis is an alternative, though this approach still faces challenges in integrating cross-cutting and context-driven considerations (e.g., politics and governance), uncertainty, and metrics.
6. **Information needed for resilient infrastructure planning usually contains high uncertainty** about climate change impacts and various urban development drivers. It is important to account for the level of uncertainty -- in properly applying economics to infrastructure resilience. This requires testing assumptions and reviewing appropriateness of conventional economic appraisal frameworks, e.g., rate-of-return measures and setting of discount rates.