

URBAN PLANNING WILL FAIL WITHOUT INTEGRATING LOCAL ACTION



Image credit: Jon Spaul/Panos

Speed read

- People's own climate adaptation efforts are poorly linked with planning systems
- This gap limits planners' influence and responsiveness, especially in cities
- National planning should refocus to work with local motivations and challenges

Informal adaptation transforms cities. It also challenges a growing emphasis on formal planning, says Marcus Moench.

The science is clear: the future holds more extreme climatic conditions. But what that means for people's lives in specific locations, or for the globalised systems we all depend on, is uncertain. This is particularly true in the world's growing urban areas, which also face rapid socio-economic and technological change.

To understand and to catalyse responses to the challenges climate change will bring, research and applied innovation are essential. Those challenges include building resilience to disruption, or enabling adaptation — and in some cases fostering a transformation of urban areas.

Elements of this are already occurring through governments' strategic responses and, perhaps more importantly, as individuals and local organisations change their behaviour independently at the local level. But this 'autonomous adaptive behaviour' is poorly integrated with planning.

Growing pains in Gorakhpur

Take the changes in Gorakhpur, a rapidly growing city in India's Ganges Basin. Over recent decades bullock carts and rickshaws have given way to motorcycles and cars. The ubiquitous mobile phone now transmits money, as well as news, between migrants and distant rural relatives.

New construction spreads into the countryside along roads and embankments, creating ever-changing peri-urban settlements beyond both the municipal boundary and the reach of basic services.

Frequent floods during the monsoon season spread sewage across large areas because drainage systems are poorly constructed and maintained. Climate change and ongoing development of once-open agricultural lands across the Ganges Basin are likely to make such floods worse.

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Marcus Moench

What are the responses? As in many places, Gorakhpur's municipal government cannot easily project and respond to change. It lacks resources, enforcement powers and technical capacity. And it has no authority beyond the municipal boundaries: peri-urban development comes under the separate Gorakhpur Development Authority.

Yet responses to flooding are occurring. Many home and business owners are investing to raise buildings

above flood levels. NGOs, such as the Gorakhpur Environmental Action Group, have also helped communities to organise to clear drains, pressure the municipality to improve drainage, and innovate with early-warning systems or urban agriculture.

These are incremental steps to adapt and build resilience, often driven by individuals and communities doing what they can to reduce impacts. Yet they are transformative: as houses are raised, for example, household flood losses decline substantially across large urban and peri-urban areas.

The technologies people use are varied. Raising houses depends on the ancient building techniques of dirt fill and stilts, as well as brick-cement construction. Yet the funds that enable investment into these adaptations — and into social organisation and flood warning systems — all require mobile phones, resilient power systems, and access to social networks through information technology.

Formal means inflexible

Experiences in Gorakhpur and elsewhere challenge the growing global emphasis on formal adaptation planning, such as that enshrined in the UN-supported National Adaptation Plans of Action — and in climate resilience programmes such as those of my own organisation, ISET.

Individuals, households, businesses, governments and others take action to respond to concerns they already face. This severely limits planners' influence, unless they recognise and build on such 'autonomous' strategies. It also limits cities' response to emergent hazards, such as extreme heat, that people don't experience regularly.

Part of the problem is that city planners have difficulty exploring solutions that challenge familiar frameworks. Sewage management, for example, generally overlooks alternatives to conventional drainage systems that are vulnerable to flooding — alternatives such as composting toilets.

And even when municipal authorities do recognise the need to build on autonomous responses, there is little opportunity for local involvement as they tend to follow their department's standard operating functions.

So every time a house is raised or a road is built, floodwater and sewerage problems are diverted not solved. It is one system, but each actor sees only their part.

Reframe the challenge

This gap between planned and autonomous responses is common even in modernised parts of the world, and has wide implications for climate responses in urban areas: the two approaches are not mutually exclusive and would, in many cases, probably be complementary.

But, at present, most research on urban resilience and adaptation frames the challenge in conventional planning terms and underplays the factors driving and enabling autonomous adaptive behaviour.

Reframing the challenge around these factors would reveal how different actors respond to different types of opportunity and stress. This, in turn, would highlight the need for communications, incentives and systems (financial, organisational and systems to resolve disputes) that guide autonomous behaviour in synergy with conventional planning. The result would be a complex and adaptive form of strategic planning similar to that used by central banks to manage national economies.

More research is also needed into technological innovations that help effective responses. Some extremely simple technologies, such those for raising houses, can reduce risk locally. But they may also redistribute risk to new areas. Other technologies play more complex roles. For example, urban systems depend fundamentally on energy technology — water supplies, communication and transport systems will all fail without power. And if these fail, the higher-level systems governing finance, early warning, social networks and food supplies will also collapse.

Source : <http://www.scidev.net/global/cities/opinion/urban-planning-climate-change-adaptation.html>