

Peri-Urban Ecosystems for Enhancing Urban Resilience: What is Less Visible So Far?

An ever increasing amount of attention is being paid to peri-urban ecosystems worldwide for enhancing urban resilience. This is a welcome step especially for a rapidly urbanizing South Asia. As a way ahead, the following **eight areas** need to be highlighted from the region:

One, there is **hardly any** money, **green money**, to be **invested in peri-urban eco-systems** as it is neither urban nor rural, and the eco-system is best suited to become an economic resource for real estate development. The ongoing work of the All India Disaster Mitigation Institute (AIDMI) on making over ten city disaster management plans in coastal India suggests more details that are needed. What is needed is an enabling environment, including policies, regulations, investors, taxes and marketing institutions that can make investments in peri-urban areas to attract potential investors.

The need for such money from the small towns is even more severe as work of Anshu Sharma of SEEDS and Barsha Poricha of National Foundation for India (NFI) suggests. Environmental action at city level is a must. Ram Khanal in Nepal has looked at agriculture in rural and peri-urban areas, and the role it does and can play in building resilience. More of such work around urban ecosystems in South Asia is needed.

Two, AIDMI review work in humanitarian action in past ten years has found that **peri-urban areas have special humanitarian action needs**. The work of Adriaan Ferf as part of the ten year review of Tsunami recovery in India and Sri Lanka

highlights this point. He has listed out special and unique partnerships for response and recovery which can be leveraged for effective action. For instance, such special and unique partnerships can be helpful in managing forced displacement. This holds true for not only the recovery followed after the 2004 Indian ocean Tsunami but also for the recovery following 2001 Gujarat Earthquake and 2005 Kashmir Earthquake.

Three, resilient water infrastructure is critical in sustaining peri-urban eco-systems and enhancing their resilience. The current work on resilient water systems-natural and manmade infrastructure-in five states in India suggests that there isn't enough focus on resilient water infrastructure in peri-urban areas. Dhan Foundation in Madhurai, with Climate and Development Knowledge Network (CDKN) and Atkins of UK has evolved the concept of "blue infrastructure" for peri-urban areas which offers a way to move ahead and take action in peri-urban areas of fast growing cities. Traces of forests in peri-urban areas are a resource for resilience. Practical Action has done useful work on eco-system based approaches in Nepal and Odisha in India. Muhammad Taher's work on recovery in Bangladesh suggests that water related ecosystem in small towns in delta areas in South Asia need immediate attention.

Four, focus on project development in peri-urban areas for flood and drought risk management with structural and non-structural measures. Carl Mossfeldt calls this landscape full of multiple risks. Work on the 2016 drought manual

by UNICEF and National Institute of Disaster Management (NIDM) and ongoing work of National Disaster Management Authority (NDMA) on floods suggest a list of interventions. The possible interventions are developing a regional database; upgrading water management infrastructure; and preparing the communities to manage disasters and adapt to climate change.

Five, there are ongoing recoveries in South Asia, and an upcoming South Asia Disaster Report 2016 by Duryog Nivaran on Building Back Better indicates that **focus on peri-urban areas in recovery is light or non-existent**. Mayors or municipal commissioners have limited say in recovery. How can flood or cyclone affected peri-urban areas recover so as to make both, the eco-system and natural resources as well as the city and its economy resilient? In addition, issues of health are often under played in peri-urban areas as Abhiyant Tiwari of Indian Institute of Public Health (IIPH) in Ahmedabad points out. Aslam Parvez, Asian Disaster Preparedness Center (ADPC), Bangkok, has argued for the far greater role of peri-urban areas of South Asia in pursuing the imperative of urban resilience in the region.

Six, the displaced from rural areas move in to peri-urban areas and the poor in urban areas often get pushed out to peri-urban areas in India. AIDMI's ongoing work in India on micro-insurance demand survey in cities of Odisha, Tamil Nadu, and Assam has found this **double push to be more widespread**. **All of those who face this double push of displacement to peri-urban areas are**

poor, and many are refugees or displaced. IFRC in Bangladesh has done useful work on reaching out to such displaced.

Peri-urban areas have far more concentration of displaced population than the urban or rural areas per se. Anjali Mohan, a habitat expert, with her students is searching for a way to better understand the interplay between the displaced, peri-urban areas, and habitat needs. Similarly, ongoing work of Kamran Durrani in Pakistan is also searching for a way to develop a policy environment that helps the displaced in urban areas to enjoy the fruits of a city's shared prosperity.

Seven, data on peri-urban areas and their resilience is scattered or very limited. Recently finished work on over 30 District Disaster Management Plans shows the dearth of data on peri-urban areas. How do we use data on and of peri-urban areas to help communities recover

and rebuild faster and better? Do we capture more data? Make it more usable? Use it often in decision making? At a recent event, Urban Humanitarian Response Symposium, London organised by Royal Institute of British Architects in London under utilisation of data from and for urban humanitarian action (and resilience) was repeatedly discussed. Data on vulnerable groups is missing. Urban planning and architecture have far more to do to use peri-urban ecosystems to enhance urban resilience.

Eight, schools and their safety in peri-urban areas needs more attention in terms of child protection as well as disaster risk reduction. AIDMI's ongoing work with UNICEF and five state governments has found that schools in peri-urban areas are neglected from urban and rural, both sides. Such schools receive less attention and have limited access to basic services of

food, water, health, roads and sanitation. They get flooded more often, have poorly constructed buildings. The schools do not engage students into local water, vegetation and fauna related studies or projects.

Anu Puri, UNICEF calls for making schools safety comprehensive. In fact Karin Fernando of Sri Lanka has often argued in favour of integrating urban resilience into ongoing efforts to implement Sustainable Development Goals (SDGs) in South Asia.

Most importantly, there is a need for ongoing and innovative sources of ideas and information on peri-urban areas in South Asia that is both, usable and useful to those engaged in urban development in India. May be the **time has come to plan a South Asia Disaster Report on Urban Resilience.** ■

- Vishal Pathak and Vandana Chauhan of AIDMI Team.

