



Peri-urban sustainability

From the STEPS Centre project:
The peri-urban interface and sustainability
of South Asian cities

STEPS project briefing

Over the last five years, the ESRC STEPS Centre has explored the management of resources in peri-urban areas, and how sustainability can be defined and sought in this context. We have aimed to unpack the politics of sustainability in peri-urban areas and to highlight alternative visions of sustainability.

Our work has focused on how water is managed and used, using case studies in Delhi and the neighbouring city of

Ghaziabad, India. People in peri-urban areas often have limited access to water. Their ways of responding range from informal coping strategies to collective mobilisation and political action. Our work has examined the problems and opportunities associated with the authorities and institutional arrangements designed to help them, and what this means for sustainability in theory and practice.



Temporary water collection point, siphoned from mainline pipe. Photo: P. Randhawa

More reading

“Peri-urban”: On the Edge of Sustainability: Perspectives on peri-urban dynamics, STEPS Working Paper 35 by Fiona Marshall, Linda Waldman, Hayley MacGregor, Lyla Mehta and Pritpal Randhawa. ISBN: 978 1 85864 794 0

“Resilience approach”: Understanding Peri-urban Sustainability: The role of the resilience approach, STEPS Working Paper 38 by Shova Thapa, Fiona Marshall and Sigrid Stagl. ISBN: 978 1 85864 923 4

Contesting sustainabilities in the peri-urban interface, STEPS Peri-urban research report, 2011.

“On the edge” website: showcasing research, media & ideas on peri-urban sustainability www.periurbansustainability.org

For all our publications and working papers, see www.steps-centre.org/publications

Credits

This briefing was written by Fiona Marshall and edited by Nathan Oxley.

About the STEPS Centre

The STEPS Centre (Social, Technological and Environmental Pathways to Sustainability) is an interdisciplinary global research and policy engagement hub uniting development studies with science and technology studies. We aim to develop a new approach to understanding, action and communication on sustainability and development in an era of unprecedented dynamic change. The STEPS Centre is based at the Institute of Development Studies and SPRU Science and Technology Policy Research at the University of Sussex with a network of partners in Asia, Africa and Latin America and is funded by the Economic and Social Research Council. Find out more: www.steps-centre.org

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What is the “peri-urban interface”?

In areas at the edge of cities, urban and rural activities and institutions exist side by side. But the peri-urban interface is increasingly defined not just as a place, but in terms of flows of commodities, capital, natural resources, people and pollution.

As the links between rural and urban become more intense, the rapid expansion of peri-urban areas brings both opportunities and challenges for rural and urban sustainability. Theorists often see the peri-urban as a transition zone which contains conflicting pathways for development. Conflicts over land, water and tenure emerge. Polluting industries, waste disposal, mining, construction or large-scale cash crops compete for space with small-scale agriculture, common lands or conservation areas.

Peri-urban areas have worsening levels of discrimination and lack of access to health, water and sanitation, and a decline in social capital. This poses huge challenges for the health and livelihoods of an increasing number of disenfranchised, poor and marginalised citizens.

Focus on water

Our research has focused on water, which has allowed us to look closely at governance. In particular, there are many informal (and often illegal) practices through which people relate to water as a *basic resource for survival*— for example, tapping into piped water supplies. Water is also, by its nature, subject to multiple uses. The outcome of these competing demands significantly affects the future prospects of a peri-urban zone. Our case studies show how the mainstream strategies for water supply and management are failing in terms of social justice and environmental integrity.

Working with a diverse range of stakeholders, we have uncovered a range of alternative perspectives and priorities for peri-urban

“There are many informal (and often illegal) practices through which people relate to water”

water management. Our work has also found some opportunities for opening up more socially just decision making processes in this area.

Research in Ghaziabad

Our research focused on the Trans-Hindon region of Ghaziabad, on the eastern border of Delhi.

Ghaziabad is an industrial town which has changed rapidly since 1990. The growth of industries and middle class colonies in the region, the rapid influx of poor labourers from different parts of India, and an expansion of formal and informal colonies have led to significant pressures on infrastructure. But the responses from various state authorities have been inadequate.

Water supply in Ghaziabad

The Ghaziabad Master Plan (GMP) includes plans to ensure that people have access to a piped water supply. But there is a conscious bias towards elite sections of society in how the GMP is implemented. For instance, in 2002-03, a disproportionate amount of water went to largely elite and middle class housing colonies. Other water supplies go to Noida, an adjoining town in Uttar Pradesh, bypassing poor residents in the villages and informal colonies.

Interviews with the residents of Vasundhara, one of the middle class colonies, suggest that houses there enjoy up to 6 hours of running water. Households there are also supplied with motors to fill up domestic storage tanks and overhead and underground reservoirs. The resident welfare associations (RWAs) remain in regular contact with State officials in case of any complaints about the water supply. Even though poor and informal

neighbourhoods exist alongside the elite and middle class colonies in the region, and face serious scarcity of drinking water, there is no provision to improve their situation under the GMP.

Contradictions in the system

- Ghaziabad Master Plan (GMP) 2021: “There are about 33 percent of informal colonies in Ghaziabad, which would be regularised and also provided [with] public utility services”.
- The Chief Engineer of the Ghaziabad Development Authority (GDA), the agency which prepared the Ghaziabad Master Plan, says: “We don’t do any planning for slums and unauthorised colonies... they are the responsibility of GNN” (Ghaziabad Nagar Nigam, a utility supplier).
- The Town Engineer (water) of GNN says that “GNN does not have a mandate to regularise [colonies]. GNN is merely a service provider... It is the GDA who develops colonies and hands [them] over to us”.

Supply and quality

In contrast to the formal system, dwellers in some peri-urban areas do not distinguish between water supply and water quality. But official responses separate these critical issues, with negative results for the lives, livelihoods and health of poor and marginalised people. It becomes difficult to address such issues within a formal system where different agencies deal with the various aspects of water management such as access, quality and pollution, with little coordination between them.

Risks and dangers

Residents in so-called “unauthorised” colonies have no official water supply at all, so put themselves at great risk to meet basic needs— for example, crossing busy train tracks to borrow water. The reuse of wastewater by peri-urban residents to cope with inadequate supply could be very beneficial: but in the absence of official recognition and support, it causes contamination and more risks to people’s health.

Scenarios for the future

The current vision of water supply is of working towards universal public piped water supply for all. Given the reality of peri-urban life, we have worked with diverse stakeholders to build a set of alternative scenarios for peri-urban policy development and planning.

Diversification. These scenarios involved varying degrees of diversification in the way in which water is supplied, used and recycled. They also explored degrees of privatisation. Each of these scenarios were explored by different stakeholders in terms of a range of criteria, including equity, affordability, quality, environment and efficiency.

Integrated water supply and waste management through multiple means.

Many of our stakeholder groups strongly supported this long term scenario. Multiple means includes piped supply, tubewells, hand pumps, and support for the safe re-use of wastewater.

- The objective would be to integrate water policy development more closely with agriculture, health and the environment.
- Peri-urban dwellers below the poverty line would be exempted from a user fee.
- The water and sanitation scheme of the region would be developed in consultation with users across social classes from both formal and informal settlements.
- In the meantime, it was widely felt that additional measures to support the poor could be integrated with the current supply and water quality management systems.

The peri-urban on film

Our film, “Water and Justice: peri-urban pathways in Delhi” looks at the issues of the project through the stories of three people – a grandmother, a farmer and an activist.

Watch online at www.steps-centre.org/films