A photograph of a peri-urban area. In the foreground, three plastic water jugs (one white, one yellow, one white with a blue lid) are on the ground. A tree trunk is on the left. In the background, a rooster is visible, and there is some trash and a building.

# PERI URBAN WATER WOES

## AND DEVELOPMENT CONTRADICTIONS

*By* **SUCHARITA SEN**

**The peri-urban areas are witnessing continually declining work participation amongst the poor, particularly women as extra-mural work such as fetching water restrains women from joining formal labour market.**



Lining canisters at 4 O'clock  
in the afternoon to access  
tap water in Minicoy Island,  
Lakshadweep.

The development paradigm in the Global South in the past three decades and a half has centred around cities, that too large cities and India is no exception. The World Development Report (2009) entitled *Reshaping Economic Geography* asserts that as investments are bound to be crowded around large cities in the years to come, increasing inequalities in the early stages are unavoidable, though it is expected that at a later stage the rural-urban gap will bridge through rural to urban migration, since these cities will not only be the centres of future growth, but will also provide jobs.

The private investments have been growing in India from the nineties—not particularly in the urban cores, but in the peripheries of the megacities of India (Chakraborty, 2000). This has manifested in a visibly higher increase in population in 2011 over 2001 in the urban areas of districts surrounding the six largest cities of the country, namely, Delhi, Mumbai, Kolkata, Bangalore, Chennai and Hyderabad (Fig. 1).

### Urbanisation process and peri-urban work spaces: What do they offer for women?

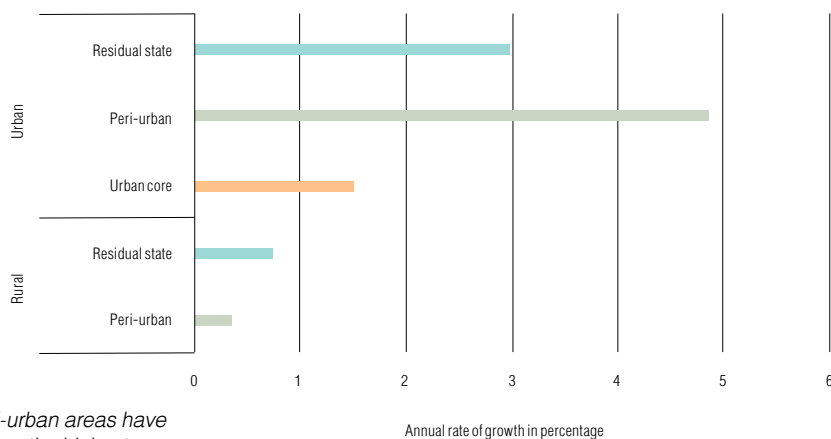
Given the growth scenario, it may seem reasonable to expect that job opportunities will be created as a result of urbanisation which would actually favour the areas around large cities. This is true in some

respects; the average wage rates are indeed higher in these spaces of urban expansion compared to the rural interiors. However, an emerging pattern which is counter-intuitive is that the gender disparities in workforce participation rates (WPR) in these spaces are higher than in both, the urban cores and residual states (Table 1).

This is not surprising as the women participate extensively in the family farms in the rural areas; a considerable chunk of it is on a part-time, unpaid basis. In urban India, however, the work opportunities for women are limited although the incidence of paid work is higher.

Notably, there was a continuum as one moved from the urban core to peri-urban spaces to the state interiors in terms of relative WPRs in 2005-2006. In 2010-2011, the peri-urban spaces represent a discontinuum in the sense that it has a higher gender disparity in WPR not only in relation to the state interiors, but also in comparison to the city cores. A question that is pertinent to ask is why this should be the case as these are the places where the effects of urbanisation are most visible, which in turn is expected to create jobs for all. Is the nature of urbanisation of a kind that is not producing inclusive opportunities to give women the same kind of job openings as it does for men? Possibly so, and some of the existing literature do point towards this (Neetha and Mazumdar, 2011). But more significantly, the evidence suggests that

**Fig. 1: Population growth in and around 6 largest megacities in India**



*Peri-urban areas have shown the highest population growth rate during 2001-2011*

*Source: Adapted from Sen 2016, calculated from the Census of India 2001-2011*

# Women participate extensively in the family farms in rural areas; a large chunk of it is on a part-time, unpaid basis.

**Table 1: Gender disparities in workforce participation (WPR) in and around six largest metropolitan cities of India**

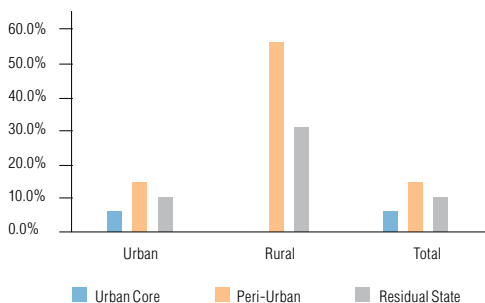
Spatial units	Ratio of female to male WPR (15-59)	
	2004-05	2011-12
<b>Rural</b>		
Districts around megacities	0.45	0.41
Residual State	0.7	0.54
<b>Urban</b>		
Urban Core	0.26	0.29
Districts around megacities	0.29	0.26
Residual State	0.38	0.31

Note: A figure of 1 would indicate an equal workforce participation of men and women; the lower the fraction, greater is the difference between the workforce participation by men and women.

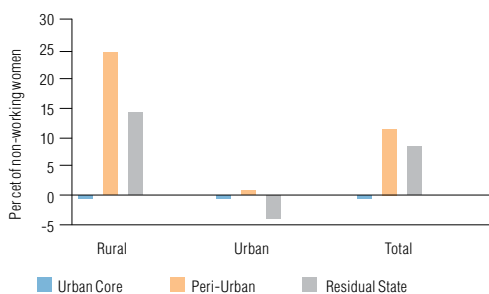
The point to be noted here is the gender disparities have increased over the years in city fringe spaces, as it has in the 'residual states'.

Source: Adapted from Sen 2016.

**Fig. 2: Share of women bringing water from outside household premises: 2011-2012.**



**Fig. 3: Change in share of women bringing water from outside household premises: 2010-11 Over 2004-05.**



Source: Calculated from Employment-unemployment rounds, National Sample Survey, 2004-2005 and 2010-2011.

*Share of rural women bringing water from outside their premises is not only high but has increased over time from 2004-05 to 2010-11.*

women from the poorer households have actually withdrawn from workforce more than those from the richer ones (Raveendran and Kannan, 2012).

## Gender division of work and deepening water collection burdens

Why have more women from the poorer households dropped out of work as compared to women from the richer cohorts? After all, it would seem that the poor women are least likely to do so, given the need to financially support their families.

It is well known that there is a sharp gender division of work with respect to domestic and extra-domestic activities. Typically, women not only often solely carry out the care giving work in the home spaces, but are also responsible for extra domestic activities in rural areas that require them to go outside the domestic bounds to collect water, fuel and fodder; the last two duties are, however, more common in rural areas.

Data reveal that not only a larger share of women are bringing water from outside the household premises in the districts around the metros, compared to both the urban core and state interiors, the increase in this for the two periods under consideration is actually the highest in case of the former (Figs. 2 and 3). The share of non-working women going out for fodder and fuel collection also shows a similar trend. These comparative figures defy any sense of rational anticipations. After all, the rural areas are rapidly urbanising in these spatial platforms where the current processes are playing out most intensively. It would not be unreasonable to



Women gathering to collect in the peri-urban area of Anajpur, Rangareddi district, Andhra Pradesh. This adds to their burden.

expect that infrastructure as basic as water would be developed in these areas. On the surface at least, this does not seem to be the case. But be this as it may, this pattern at least partially explains the high and increasing gender disparities in work participation in the peri-urban spaces in recent years.

Water for drinking and domestic use as well fuel for cooking are indispensable resources without which a household cannot function. If these resources become scarce over time for some reason and larger number of women need to spend more time in collecting and managing these, it is reasonable to presume that they may actually be forced to withdraw out of paid work under these circumstances.

### **Why is there an increasing peri-urban water insecurity?**

The process of urbanisation described by the World Development Report 2009, of rural-urban migration and expansions of large cities, in reality, creates a very vulnerable situation among the residents in the peri-urban population including migrants, particularly women, commonly, the most vulnerable of the migrants. The construction workers who build the city in a literal sense live in a state of flux without access to basic amenities (Tacoli, 2008).

South Asian Consortium of Interdisciplinary

Water Resource Studies (SaciWATERS), based in Hyderabad is currently engaged in analysing periurban water insecurities with special reference to climate change and informal water market. The ongoing work reveals that the water insecurities emerge from two basic reasons: spatial water outflows from these areas and large scale water contamination due to industrial pollution. Both phenomena become more acute in times of water scarcity; Telangana, for example, was reeling under acute drought conditions from 2013 to 2015 and peri-urban residents of Hyderabad reported increased water insecurity both due to reducing water quantity and deteriorating quality. A higher incidence of privatisation of drinking and domestic water in these spaces feeds the urban expansions. This leads to a spatial water outflow from these areas which results in rapid groundwater depletion. Two observable impacts can be seen. First, the locals are forced to purchase water for both domestic and drinking purposes from the water vendors which becomes even more costly during lean seasons and drought years. Second, the groundwater depletion has resulted in large stretches of cultivable land turning fallow and ceasing to be a source of livelihood. Ground water pollution, both from city sewage and industrial affluent has also contaminated a number of the surveyed villages

near peri-urban Hyderabad that has rendered the groundwater unfit for drinking.

Our survey reveals that some of the poor scheduled caste households were forced to depend on these sources when the prices became unaffordable to them in the drought year of 2015. This entire situation, and waning surface water supply by the government is observed to have a particularly distressful effect in terms of water collection burdens. These processes, to a large extent, provide an explanation for the phenomenon of reducing women work participation in the peri-urban areas. In addition, there is rapidly declining agriculture which has been a primary provider of employment for women. This decline is not only due to shifting land use, but also because of water scarcity in the wake of rapidly reducing base of safe drinking water that is available free of cost.

### Policy Contradictions

The National Water Policy 2012, acknowledges that 'water is fundamental to life, livelihood, food security and sustainable development'. The latest Draft National Water Framework Bill, 2016, is however, somewhat baffling that avers 'the state's responsibility for ensuring every person's right to safe water for life shall remain even when water service provision is delegated to a private agency (emphasis added) and in case of such delegation, the right of citizens to safe water for life and the duty of the state to provide the same shall remain in force'. The fundamental contradiction between 'delegating' water service provision to a private agency and fulfilling state's duty towards maintaining 'the right of the citizens to safe drinking water for life' appears to have bypassed the policy makers. The threat, as observed, is not restricted to only privatisation of water, but also to the polluting industries concentrated around large urban centres that they find favourable for obvious reasons. Ironically, looked from a perspective of growth, which has become central to policy directions in recent times, these urban-centric investments would be in tune with the very path to development described by World Development Report, 2009. The connection that is not made often is how the path of commodification of water, that is de jure a common resource, leads to not only an economically unequal and unsustainable end, but how this route throws women into far more disadvantageous positions compared to men.

It is well-known that there is a sharp gender division of work with respect to domestic and extra-domestic activities.

### Acknowledgement

I appreciate the efforts of the entire SaciWATERS team working on peri-urban water insecurity. I also acknowledge the funding support from NWO, Netherlands, Arghyam Bangalore and Bordeaux Métropole, France. ☒

### References

- Chakravorty, S., 2000. How does structural reform affect regional development? Resolving contradictory theory with evidence from India. *Economic Geography*, 76(4): 367-394.
- Raveendran, G. and Kannan, K. P., 2012. Counting and Profiling the Missing Labour Force, *Economic and Political Weekly*, 47(06): 77-80.
- Sen, S., 2016. Gendered Exclusions in the Work Spaces of Peri urban Areas in a Neoliberal Environment Learning from the Experiences of Large Metropolitan Cities in India. *Environment and Urbanization Asia*, 7(1): 1-15.
- Tacoli, C., 2008. Links between rural and urban development in Africa and Asia. *United Nations Expert Group Meeting on Population Distribution, Urbanization, Internal Migration and Development*, United Nations, New York.
- World Bank, 2009. *Reshaping Economic Geography*, World Development Report. Washington DC.

---

*The author is Executive Director, South Asian Consortium for Interdisciplinary Water Resource Study (SaciWATERS), Hyderabad.*  
*ssen.jnu@gmail.com*