

Issue Brief -3

Choices in the Peri-Urban

Peri-urban areas are not 'waiting rooms' for entry to urban areas. A fundamental change in mindsets is needed, to prevent further land-use changes and unregulated construction activities. The situation can be better managed by promoting and maintaining multifunctional green spaces and also peri-urban agriculture.

Key points

- ◆ During the last decade (2001-11), the number of cultivators fell by 9 million while agricultural labour rose by 38 million.
- ◆ There is an urgent need to rejuvenate agriculture holistically to sustain India's food sovereignty and ecological sustainability.
- ◆ It is high time to reflect on de-limiting the urban growth through effective land-use policies, including a national one. The rural economy too needs attention.
- ◆ About 80 per cent of the people officially counted as poor lived in rural India in 2011-12, highlighting the need to enhance rural incomes.

Growth Versus Sustainability

Euphoria about India's gross domestic product (GDP) growth rate over taking that of China, making it the world's fastest growing economy needs to be tempered with some reflection on the costs of that growth, its differential impacts on the people and the environment and the choices we are making. As urbanisation goes on unbridled, in the decade 2001-2011, the number of cultivators fell by 9 million while agricultural labour rose by 38 million according to the 2011 census. More importantly, the fall in the number of cultivators was higher for women, from 41.9 million in 2001 to 36.0 million while that of male cultivators fell from 85.4 million to 82.7 million, indicating, along with falling child sex ratios across the country a further skewing of unequal gender relations. As cities and towns engulf surrounding villages, the very nature of the economy, society and environment gets transformed unalterably. 'Development'

and 'progress' is equated to building roads, embankments and bridges, housing societies and 'farm houses' for the urban rich to relax during weekends. Swanky malls replace farmers' traditional bazaars. Land sharks, often with political patronage, seek to acquire land at any cost in the urban fringes but these areas also become the dumping grounds of the wastes of the core city adding to the woes of the already suffering peri-urban inhabitants. Gurgaon, which was earlier a part of peri-urban Delhi, is a very good example of this process. 600 out of its 700 acres of prime agricultural land that played important environmental roles has been acquired for haphazard real estate development that has left its traditional as well as new citizens choking for breathe as well as thirsting for water. Another disaster is in the making in the development of Amaravati, the new capital of Andhra Pradesh where some 33000 acres of prime agricultural land has been obtained. Forty per cent of this land is wetland where more than 100 crop



varieties are cultivated. Obviously the large absentee landlords will gain and the small and marginal farmers as well as those dependent on the agrarian economy will suffer. Moreover the area has many human made tanks (Cheruvus) that will be used to build houses and offices but a heavy downpour will certainly lead to flooding as happened in Chennai in 2015. Eighty per-cent of the area is flood prone according to the disaster management plan of Vijayawada.

Choices and the Future

Clearly, some very important holistic choices have to be made nationally, locally, societally and individually. The first set of these choices relate to de-linking urbanisation /industrialisation with progress and focus again on developing agriculture and think of the 800 million people who live in rural areas. Indeed, the choice to rejuvenate agriculture holistically is important as it relates to India's food sovereignty and ecological sustainability inasmuch as farms are not just spaces to grow food but also serve crucial environmental purposes like mediating the micro-climate, sequestering carbon, nutritional recycling and so on.

While between 2003 and 2012, there was a clear turnaround in India's agricultural performance, the rate of growth in agriculture and allied activities fell from about 4 per cent per annum in the 11th Plan period to just 1.7 per cent in the first three years of the 12th Plan (2012-15). Over 300,000 farmers have committed suicide in the last decade, and in Maharashtra alone, over 2,000 such cases have been reported last year. Worse, India is currently reeling under the impact of an unprecedented drought. For the second year in succession, rainfall in the monsoon season has been less than normal. 302 districts in the country have been declared drought hit (Vijayashankar, 2016). Since agriculture is the source of livelihood for millions in rural India, droughts push the already precarious lives of smallholder farmers and agricultural labourers to the brink, leading to massive rural distress, accentuating further the temptation to sell off land to real estate developers or industrial eucalyptus plantations.

Indeed, the choice relates to the nature of employment and combatting poverty. Do we want to increase the number of urban /semi-urban poor living in utmost misery in slums/squatter settlements, many of the migrants climate refugees and victims of climate change? (Mitra and Singh, 2011). While addressing this issue requires as a starter the delimiting of urban growth through effective land-use policies, including a national one, the rural economy too needs attention.

Reviving Agriculture and Rural Economy

According to The World Bank's World Development Report 2008, agricultural growth is at least twice as effective in reducing poverty compared to growth originating in non-agricultural sectors. In India, 80 per cent of the people officially counted as poor lived in rural India in 2011-12, highlighting the need to

enhance rural incomes at higher rates in poverty reduction. This means that for making a significant dent in poverty, rural incomes have to grow at a faster rate. The gap between urban and rural consumption levels has increased over the years. Recent studies have shown that despite the spurt in rural incomes between 2005 and 2012 caused by a rise in commodity prices and favourable terms of trade for agriculture, the level of non-farm incomes is at least three times that of farm incomes even today (Vijayashankar, 2016).

The rural economy presently is a lot less "agricultural" than previously. With the fall in the average size of landholding, over 90 per cent of farmers are now in the small and marginal category, cultivating over 50 per cent of the cropped area. Smallholder farmers are increasingly forced to combine off-farm work with work on their own land. Data from the 68th round of the National Sample Survey (2011-12) show that about 36 million workers shifted from agriculture to non-agricultural sectors between 2004-05 and 2011-12, meaning that a major part of their income comes from work outside agriculture. On account of this inter-sectoral movement, the share of agriculture in the total workforce has fallen below the 50 per cent mark for the first time after Independence. Sectors like rural construction now employ substantial numbers of



Urban and peri-urban agriculture has been promoted and adopted across the world to adapt with changing climate (Lwasa et al. 2009; De Zeeuw et al. 2011; Roberts et al. 2011). The climate risks ranging from floods, heat waves, sea level rise and scarcity of water are some of the issues cities are facing globally. Maintaining the land use pattern beyond the city edge or protection of open space in city's periphery has been tested in adapting to flooding by a range of enterprises from productive greening strategies involving fruit trees, herbal shrubs, high-value vegetables, and on hill slopes and in valleys to increase water infiltration and reduce the time lag for flood occurrence.

Increased urban and peri-urban agriculture also has adaptation potential with respect to heat waves by moderating microclimates. During the hot seasons, temperatures tend to be high, but when neighbourhood and city level productive greening involving trees is practiced, this has a potential for reducing high temperatures and effects of the urban heat island. Although provisioning potential is not as high as regulatory, UPA can also help households of the urban poor supplement food supplies, thereby adapting to changes that might affect distant hinterlands that are the supply regions for food into the city.

In Gorakhpur, the initiative of the Gorakhpur Environment Action Group (GEAG), in some peri-urban villages, clearly manifested different alternative livelihood choices. The increase in creative opportunities is reflected in the increased tendency of the farmers to lease land from others so that they can grow more crops far removed from the inclination to give up farming due to the overall deteriorating conditions in peri-urban areas. It is concluded from the initiative that if villagers are helped to improve farming, horticulture and animal husbandry in eco-friendly ways, the possibility increases that they will not sell out their valuable lands to builders, and protect open spaces and water bodies in their area.

workers. Given the poor working conditions in these sectors and the overall decline in quality of employment in the economy, this is likely to be the result of a swapping of low income farm work for low quality non-farm work. Hence, the huge challenge of employment generation needs to be addressed. As the Economic Survey 2014-15 shows, employment growth (1.40 per cent) has lagged behind growth in the labour force (2.23 per cent) between 2001 and 2011. Clearly, employment elasticity of growth, showing the effectiveness of the economic system in generating employment, seems to have declined over time. The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) has provided relief employment to around 5 crore rural households per year over the last decade. However, since 2012,

both the number of households covered and the number of person days of employment generated under MGNREGA in the country as a whole has undergone a steep decline (Vijayshankar, 2016).

For rural India to be vibrant, the way forward seems to be to simultaneously address the twin challenges of reviving the dynamism of the farm sector by building its climate resilience on the one hand and creation of quality employment in nonfarm segments of the rural economy on the other.

Public investment holds the key to addressing the long-term structural constraints of the rural economy. However, the level of public investment in the rural sector as well as in agriculture has been declining over time the share of public investment in agriculture was just 0.4 per cent of the GDP in 2012-13. Major areas that need investment are in localised watershed development, soil quality development, promotion of crop diversity and so on. The present levels of public investment in agricultural research and extension, currently at 0.7 per cent of the GDP from agriculture, need to be raised by at least four to five times for effectiveness. There is also the major challenge of employment generation to be addressed. Projecting the current trends of employment growth to the future, estimates show that the number of nonfarm jobs to be created has to be at least thrice as much as the current growth rate of 56 million jobs per year. A significant number of these jobs will have to be created in the rural nonfarm sector, highlighting the need to identify sectors within the rural economy which have high growth and employment generation potential and supporting them through a carefully worked out policy package. Sectors like agro-processing and value addition to agricultural produce offer huge scope for local employment and for greater control by the local producers over the value chain. Public investment in rural infrastructure is known to leverage substantial private investment and generate significant local employment multipliers. Available evidence shows that even as the overall rate of women's labour force participation has declined, there has been high labour force participation of women from poorer households, especially in times of increasing agrarian distress. This underscores the need to revive MGNREGA, which has a proven track record of providing relief employment to a large number of rural women.

Peri-urban Agriculture

In those peri-urban areas that have already come into being, the situation can be better managed by promoting and maintaining multifunctional green spaces and also peri-urban agriculture, the latter requiring greater attention from agricultural scientists and concerned departments. Moreover, better solid waste management practices need to be put in place and the peri-urban areas not used as waste dumping grounds but for promoting peri-urban agriculture, defined as:

[A]gricultural (including livestock) production, processing, and distribution activities within and around cities and towns, whose main motivation is personal consumption and/or income generation, and which compete for scarce urban resources of land, water, energy, and labour that are in demand for other urban activities (Gundel, 2006).

What is needed is a systems approach in the protection of urban and peri-urban agriculture. Peri-urban areas are not 'waiting rooms' for entry to urban areas. A fundamental change in mindsets is needed, to prevent further land-use changes and unregulated construction activities. While international agencies like FAO and CGIAR articulate the need to for supporting policies and practices for peri-urban agriculture (Marshall *et al.*, 2009; FAO 2007), they do not seem to consider agriculture as part of an integrated system within ecological settings which contributes to the overall resilience of the city. Multidisciplinary and integrated administrative land-use planning that recognises the agricultural ecosystem as a core component of the urban and peri-urban natural resources system is essential for this initiative (Marshall *et al.*, 2009; Pothukuchi and Kaufman, 1999).

Good urban and peri-urban agricultural practices, from across the world, highlight the need to identify the potential human and environmental health risks, city by city and to develop and implement evidence based policies with multiple stakeholders to eliminate /minimise these risks. But this will necessitate a major shift in the way we think about development.

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Gorakhpur Environmental Action Group

HIG 1/4, Siddharthpuram, Taramandal Road
Gorakhpur-273 016 (U.P.) INDIA
Phone # 0551 2230004, Fax # 0551 2230005
Email : geagindia@gmail.com, Website : www.geagindia.org

