

PLANNING INEFFICIENCY IN PROTECTING FARMLANDS AND LIVELIHOOD OF AGRICULTURAL COMMUNITIES IN NEW URBAN EXPANSION OF INDIAN CITIES

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Abstract:

The urban population of India in 2011 was 377 million, which is projected to cross 600 million by 2031. Rapid expansion of cities in India is mostly taking place at the expense of fertile farmland. Annually, average 0.12 million hectares of farmland are eaten up by urban expansion in India. This is causing a shortage of food supply and destabilizing the farmer's livelihood and social capital. The land use regulation and planning instruments are in place in India. However, they are unable to protect farmland from urban expansion. Many towns including those designated as smart cities are acquiring farmland for urban expansion by displacing farmers without providing a better living and earning alternatives. This paper makes content analysis and carries out case study of Pune smart city to understand why planning instruments are ineffective in protecting farmland and livelihood of farmers while making urban development plans. This paper would explore and outline a number of planning and policy weaknesses that are ineffective in protecting farmland and livelihood of agricultural communities in the process of urban expansion.

Keywords:

Urban expansion, Farmland, Livelihood, Planning.

I. Introduction:

The urban population of India in 2011 was 377 million, which is projected to cross 600 million by 2031. Rapid expansion of cities in India is mostly taking place at the expense of fertile agricultural land. On average, 0.12 million hectares of agricultural land are consumed annually by urban expansion in India. [1] Urban agglomerations widening is the result of economic development and substantial increase in urban population. The first cause of peripheral urban expansion is the growth of initiatives for economic development, urban planning, and industrialisation. Space is required for industrial development, urban infrastructure and transportation networks that require reorganizing and rebuilding people's already occupied land. [2] The second explanation for urban growth in the region is primarily because of the natural population, but in many developing countries rural-urban migration contributes much more. [3], [4] Moreover, due to their popularity as an environment for living and working and as an enterprise, culture, education and the foundation of technological innovation, cities continue to grow. [5], [6], [7], [8]

Horizontal urban expansion over peripheral villages takes place in the Indian sense, at the expense of profitable and fertile farmland. [9] Expansion occupies farmland, displaces farmers and deprives farmers of agricultural employment. Eventually, this would lead to the impoverishment of displaced farmers. [2]

This is the cumulative effect of four main factors:

- Insensible planning and planning policies for urban expansion that bring rich fertile agricultural land under development in Regional Plans, Eg. The Pune Regional Plan and Development Plan, Pimpri-Chinchwad Development Plan.
- State mandatory land acquisition to provide Regional Plans and Development Plans providing negligible remuneration without relocation plans. Examples are the development plans for Pune, Jaipur, Lucknow and Guwahati. [10], [11], [12], [13]
- participation of private developers providing enticing surveillance payments against the selling of property and joint venture projects proposals. This can be seen in all major cities such as Pune, Jaipur, Lucknow and Guwahati. [10], [11], [12], [13]
- Developers purchase agricultural land for development by offering market prices. Farmers are getting a lot of money in these transactions. However, as these farmers are not formally trained to handle finance, all funds received during transactions are exhausted over time due to impulsive expenditure. This leaves farmers in a situation where they have neither land in their possession nor money in their hands.

The major risks of displacement and impoverishment due to the imprudent planning of urban expansion are:

- a) Landlessness: Farmers who lose land as a result of acquisition by government and private players.
- b) Joblessness: Unemployment due to lack of non-agricultural skills and training.
- c) Homelessness: Temporary loss of shelters due to displacement and affordability for new shelters.
- d) Marginalization: Economic, social status and psychological marginalization and its consequences.
- e) Food insecurity: Food insecurity and undernourishment due to loss of lands and inadequate resettlement.
- f) Increased morbidity and mortality: Social stress and psychological trauma due to displacement.
- g) Limited and unequal access to common facilities and public services: Limited and unequal access to public amenities like water supplies, forest lands, community sites, etc.
- h) Social disarticulation: Disturbance in the existing social fabric due to displacement. [2]

In view of all these risks, there is a strong need to understand and evaluate the role of planning, land use policies and the participation of private developers in the displacement of agricultural communities in the surrounding villages during urban expansion.

II. Methodology:

This research work is focused on an interpretation of the material, field observations and interviews. It reviewed research papers on agricultural land loss, farmers displacement and the effect on farm communities' livelihoods. It also studied human rights viewpoints, development policies, land use and zoning regulations, property laws, land policies in India. Field study of Pune smart city, where horizontal urban growth over the past three decades has eaten up a significant number of periferal farmlands, followed by interviews with stakeholders. Content review, one case study and few interviews and discussions with affected farmers, planners, bureaucrats and developers are the limitations of this research.

III. Review of Literature:

Robertson and Andersen (2010) in their paper 'Global Land Acquisition: Neo-Colonialism or Development Opportunities?' has explained how land grabbing of agricultural land takes the form of large-scale purchases or leases in natural resource-rich developing countries. It displaces rural people from their native land for generations on which they rely to survive. [14] Acquisition of land within the legal system of land acquisition as part of "for the greater common good" for large SEZs is one of the key concerns. In West Bengal, Orissa, Andhra Pradesh, Goa and Maharashtra one can see the displacement and destruction of livelihoods caused by SEZs and their consequences. [15] In his research paper 'Displacement, Risk and Resistance: Local Perception and Practice in Sardar Sarovar,' Ranjit Dwivedi (1999) outlined the development caused displacement and its impacts such as job losses, disruption of local economies, weakening of social and food security, deterioration of public health. This research addresses in detail the loss of agricultural land and the scarcity of related farming livelihoods. [16]

Comments Wilmsen (2018) on the effect of land acquisition and displacement on rural communities. In his study he argues that cash assistance alone does not provide the people with viable means or skills to restore their livelihood. [17] In his paper, Abhirup Sarkar (2007) elaborates the mechanism by which agricultural land is acquired to develop transportation network, industrial establishments and various civic services, displacing rural people from their traditional occupation and livelihood. [18]

Rajkishor Meher (2009) in his paper on tribal and agricultural communities explores the impact on its traditional sustainable means of economic liberalization, globalization and privatization of India's model of growth that affects tribal and other poor people dependent on agriculture. He learns how locals are forcefully displaced from their own lands and homes in the name of economic growth without any serious attempts to rehabilitate them and incorporate them into the cycle of modern development. [19] In fact, displacement due to urban growth wipes out previous livelihood means from a society and creates a totally modified way of life that is mostly less welcoming in most of the cases than before. [20]

Jiang, Waley and Gonzalez (2018) identified a case study on displacement in Shanghai in their paper on how agricultural communities faced displacement and relocation in Shanghai's western suburbs, where 11,000 villagers were forced to move from their original villages to make way for a new commercial venture that would challenge their livelihoods. This research compared people's lives before and after relocation, and also examined the compensation mechanism. [21] There are specific threats of migration and deprivation in relation to this. The research paper 'Risks, Safeguards and Reconstruction: Cerena's (2000) structure for the relocation and resettlement of communities reveals landlessness, loss of employment, loss of housing, dehumanization, food scarcity, increased mortality and morbidity, lack of access to shared property and services, and social dis-articulation. Abhijit Guha (2013) assessed the potential for urban expansion in India that would result in widespread landlessness and deprivation among poor farmers. In his paper on the forced relocation of farmers in India he reflected that it was very difficult for poor farmers at court to contest the land acquisition claim against the so-called state development agenda. Recent research has shown that the Indian judiciary, even after 70 years of independence, has failed primarily to protect poor farmers from the government's attack on forced land acquisition. [2], [22]

In the research paper Admasu and others (2019) present a case study of Ethiopia showing how demand for land for urbanization was met primarily through the transformation of rural agricultural land by expropriation that adversely affected previous land users by reducing the quantity of output [23] Ying Liu et al. Al. (2016) presented a Shenzhen case study focusing on major urban reconstruction and associated displacement in Chinese cities. Throughout their report, they address how sustainable urbanization is a socially egalitarian process in which urban people have a common voice in planning and transformation in China, including the most migratory populations. [24] In their paper Marshall and Dolley (2018), they discussed changes in land use, resource production, pollution and transformation of livelihoods, which drives sudden changes in interactions between socio-technical and social-ecological systems and generates dynamic feedback through urban growth. We argue that in

India and China, peri-urbanization, lack of knowledge and policy management in its present form contributes to increased exclusion and unrealized capacity to attain multiple sustainable urban growth objectives. [25]

According to the United Nations, by 2050 the greatest population increase will take place in developing nations like China and India, with the land management issue and the displacement of the poor farmers. Wei, Y. D., Ewing, R. (2018) he addressed the impacts of poverty in his paper 'Urban Growth, Sprawl and Poverty.' Nonetheless, research to understand how urbanization, spatial inequality and sustainable development are interrelated are still minimal. [26] Wei, Y. D. Ewing, R. (2018) in paper 'Urban Growth, Sprawl and Poverty' discussed the impacts of deprivation. 'Work to explain how the interrelationship between urbanization, spatial disparity and sustainable development is still limited. [27] In his study "Urban expansion of land policy and occupation as infrastructure in Kinshasa," Filip De Boeck (2019) discusses in depth the urban growth of the capital of the Republic of Congo, Kinshasa and its negative impacts of displacement and poverty on the population and on agriculture. [28] Huang et. Al. (2016) elaborates on the effect of social, cultural, and spatial changes on Chinese livelihood insecurity due to urban expansion in its research paper with China's rapid urbanization, mentioning that most urban farmers are at high risk of losing their livelihood due to land recapture. [29]

In his study Gomes et. Al. (2018) clearly notes that land use and land cover changes are caused by both natural and human activities with adverse impacts on biophysical and agricultural resources. [30] Urban development experiences, mostly, a biased approach that prioritizes certain groups or categories of people. Wang et al. (2019) highlights the prejudice of urban growth in China by neglecting the needs of the poor rural population in their study related to urban land growth policy and urban-rural income gap in China. [31]

IV. Human Rights approach towards Land Possession:

Human rights are what we value when we feel safe and secure and when we think that we are vulnerable and powerless. Land has a central role in natural law within human rights discourses and is considered fundamental for the protection of the individual. [32] Landed properties must be seen as a civil right with focus on human rights. If we feel comfortable, protected and powerless, we value human rights, what we really need. In the perspective of moral positivism, land as a fundamental human right is a catalog of all land relations rights. A range of human rights will definitely only be enjoyed if property is granted equal access. Land concerns present a number of urgent human rights problems as long as property is a central factor to all of them. [33]

The human right to property's golden rule is a collection of five freedoms:

- Right not to practice slavery, servitude or forced labor.
- The freedom not to be coerced into sexual or marriage slavery.
- Right of ownership if a male, a female, a migrant worker and a family are subject to racial discrimination, a child or a disabled individual.
- The freedom to work, including the rights of all to live by their job and to work openly.
- The right to a decent standard of living and the right to adequate food and accommodation. Land rights are contested everywhere but land rights in India in 1955 was contentious.[34]

V. Factors for Land Policies in India:

1. The Indian Republic has approximately 304 million hectares of land, and about 256 million households (2011 census). Three considerations are important in terms of planning, law and property rights when attempting to establish a relationship between the land and the inhabitants.
2. The Indian subcontinent has 15 distinct physical features of the agro-climatic zones in those regions. Consequently, the worldwide valuation of land and future land use is radically different and impacts the work people will look for.
3. Indian republic is made up of 29 states and nine union territories which make up the Indian Republic's socio-political structure. The classification is based on language and culture, rather than on agro-climatic issues alone. As a result, more than one agro-climatic zone within a single regional state are sometimes recognized. These regional states were governed by local kings before colonization of the region. Accordingly, the customs and laws that existed in both these areas are old and survive in the post-colonization and post-independence period. Some nation states make laws and policies relating to land governance.
4. India is a traditional hierarchical society at the bottom of the hierarchy with unique disadvantaged social classes which have restricted and restricted access to resources. The majority (around 30 per cent) of the landless population and those who own less than one hectare of land (around 50 per cent) belong to the lower caste and indigenous communities. And, in the Constitution, these citizens have received special rights. [35]

VI. Case Study of Pune Smart City:

Pune City (Pune Municipal Corporation Limited) is located between 18°25' N and 18°37' N, 73°44' E and 73°57' E latitudes and occupies an area of 243.84 km². Located on the Deccan Plateau on the leeward side of the west Ghats, at an altitude of 560 m above the medium sea level. The town was founded in the 8th century and under British rule it was a small agricultural village in 1857. The total area was about 7.74 square metres. In Pune. In Pune. Km to 138.98 km. 1958 Kilometers. The total area of Pune grew from 145.92 square kilometers to 243.84 square kilometers with 23 villages added to the existing metropolitan frontier in 1999, with 16 million displaced persons, until 2011. (Table 1) (City Growth Plan 2006). (Table 1). Based on the 2011 census figures, Pune City is India's ninth largest city with a population of 3,115,431 (Census 2011).

Demographic Trend of Pune City (Source: Census of India, 1951-2011)

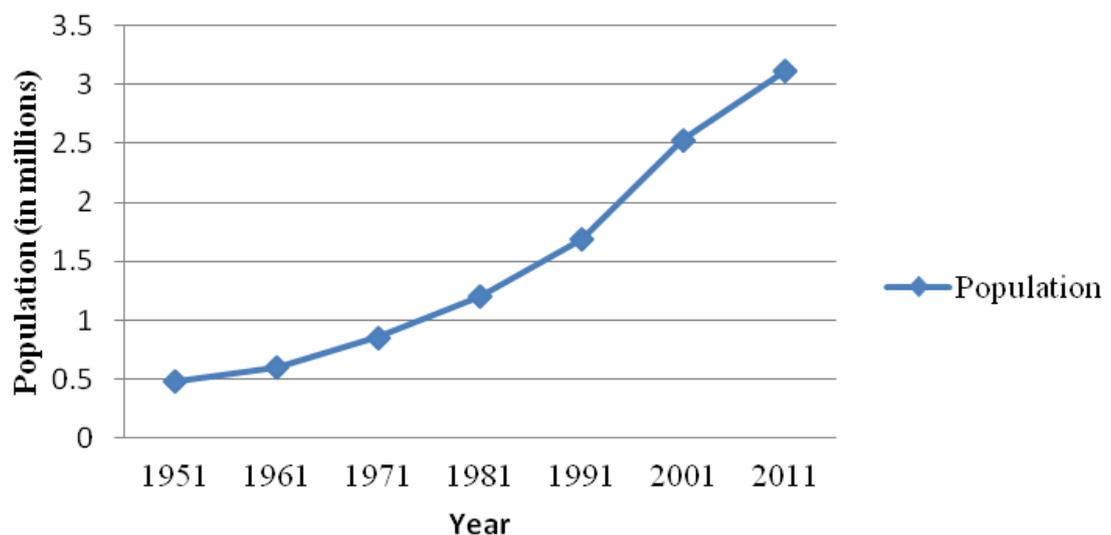


Figure 1

The city of Pune is the most populous, and construction takes place along the national highway at the expense of nearby rural forests. According to the Maharashtra State and Town Planning Act 1966, the entire plan is planned as a Local Plan and Growth Plan by the City Planning Department. Town lost 37.75% of its cultivable land between 1980 and 2001. Therefore, about 70-80 percent of open / vacant and developed land has been put under urban land use and open land has been extended within the city or on the outskirts of townships, new suburban developments, schools, shopping centers or apartment complexes. [36] In a number of neighboring agricultural base villages, horizontal development continues, resulting in loss of agricultural land and displacement of agricultural communities.

Pune is growing rapidly both geographically, economically and demographically. Remote sensing analysis data from Pune City satellite images (1999 and 2009) were used to assess land use / land use transition, study showed troubling urbanization and urban sprawl at Pune.

Estimates showed that Pune's built-up area rose from 30.86% in 1999 to 48.50% in 2009, a significant rise of 43.01 sq km. In the past 10 years alone, the barren and fallow land area declined dramatically, from 36.20% in 1999 to 21.80% in 2009. The main objective of the study was to examine the evolving pattern of urban expansion in the region, and it was noted that both sparse and dense vegetation had declined in 5.58 and 1.66 square kilometers respectively in the last 10 years. Therefore, this study emphasizes that the city is under high urbanization and development pressure and that it occurs by acquiring and turning existing habitats such as rural, barren, fallow and forest land into developed environment and gray infrastructure.

Morphological Development of Pune City,

Source: City Development Plan, 2006

Year	Total Area (sq km.)	Area Added (sq km.)	Name of the Added Area
1857	7.74		South Shankarsheth road to Ambila Road, NE-right bank of the river Mutha, East-Wesley road to the new Modikana near Nagzari
1889	9.86	2.12	Area between road to Shankarsheth, road to Satara and maidan to Golibar
1890	18.04	8.17	Erandawana and the village of Bhamburda
1931	18.79	0.75	Gaothan of Parvati and area till Hingne
1935	19.05	0.26	Chaturshringi temple area and surroundings
1958	138.98	27.02	Inclusion of 18 periferal villages
1975	138.05	-0.84	Area excluding some part of Bhosari
1981	146.95	7.33	Inclusion of area of Sutarwadi
1983	146.11	0.014	Inclusion of survey no. 79 of Ghorpadi
1997	243.87	97.84	Inclusion of 23 perepheral villages

Table 1

VII. Results and conclusions:

This paper analyzes the subject matter and conducts a case study by Pune Smart City to understand why planning approaches fail when implementing urban development strategies that protect farmland and farmers' livelihoods. It was noted that while urban expansion is considered to be pursued in the planning of the Regional Plan and Development Plan, in adherence to the legal

requirements of the 1966 Maharashtra Regional and Town Planning Act, there was no security of agricultural land due to weak policies and unidirectional implementation of land. Farmers whose land is purchased through the planning process are given compensation in the form of cash, transfer of development rights (TDR) or as established land not connected to their current occupations. There are no attempts to resettle displaced people in order to live and sustain their livelihoods and agriculture. The needs of those rural groups, which are not included in a new socio-economic urban context, are not taken into account during the planning process. The lack of sensitive development policies ends up without potential opportunities in the poverty of farming communities. Changes in land use without appropriate planning steps lead to unsafe environmental conditions and a food security threat. The study strongly indicates that there is a real urgent need to reframe policy to prepare and execute urban development, focusing on the security of farmlands and livelihoods of farming communities.

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