ISSN: 0103-944X

Volume 11 Issue 1, 2023

pp: 1918-1938

Policy Recommendations to Prevent Loss of Agricultural Lands and Livelihood of Agricultural Communities in Indian Growing Cities

Ar. Swapnil Sheth*, Dr. Mahendra Joshi†

*PhD Scholar, Lovely Professional University, Phagwara, Punjab †Professor, Lovely Professional University, Phagwara, Punjab Email: shethsg@gmail.com

Abstract:

India is primarily an agriculture base country and undergoing tremendous development in the sectors of technology, industry and IT sectors. Cities are rapidly growing and undergoing rapid unstoppable urbanization. In 2011, India's urban population was 377 million, and it will be 600 million by 2031. India's rapid urbanization threatens arable land. Urbanization consumes 0.12 million hectares of agricultural land annually in India.. This paper aims to recommande changes in existing planning policies in India that are responsible for agricultural land loss and devastation of livelihood of agricultural communities in the process of urbanization. Planning policies are studied and compaired in detail for the developing cities of Pune and Bangalore with respect to regional plans and development plans of respective cities. The study reveals tremendous shift in planning policies over the period of time giving priority to development agenda for economic development of the region without giving deu consideration to preservation of farmlands that are coming under urbanization for all these growing cities. Many of the planning policies are common for all cities studied however few policies are seen to be in consideration to local conditions and political agenda. Study demand an immediate intervention towards planning weaknesses and change the few of the planning policies that can help preserving the farmlands that are coming under urbanization.

Keywords: Urban expansion, Farmland, Policy, Planning, Land Loss

Introduction:

The urban population of India was 377 million in 2011 and is expected to reach 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] The expansion of urban agglomerations is the product of urban development and an increase in urban population. The first cause of urban expansion to the periphery is the growth of economic development programs, urban planning and industrialisation. Space is needed for manufacturing, socio-economic infrastructure, connectivity and road networks which involve the reorganization and reconstruction of the space already inhabited by people. [2] The second reason for urban expansion to the periphery is mainly due to natural population growth, but rural-urban migration is contributing even more in many developing countries. [3], [4] [3],[4] In addition, cities continue to grow because of their popularity as a place to live and work,

ISSN: 0103-944X

Volume 11 Issue 1, 2023

pp: 1918-1938

and as a center for trade, culture, education and the birthplace of technological innovation. [5], [6], [7], [8]

In the Indian context, horizontal urban expansion over peripheral villages takes place at the expense of productive and fertile agricultural land. [9] Expansion occupies farmland, displaces farmers and deprives farmers of agricultural employment. Eventually, this would lead to the impoverishment of displaced farmers. [2]

Methodology:

This research work is focused on policy analysis, field observations through case studies and interviews of stake holders such as farmers, planners, buerocrats and politicians. Field study of four metro cities Pune and Banglore 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 basic elements of analysis of this research.

Policy Analysis:

All four cities are analyzed in terms of land use policy, zoning regulations, master plan principals, farmland protection policies, farmers' rights policies, land acquisition and compensation policies, farmer eviction and resettlement policies, and agricultural policies based on a review of existing development policies, planning policies, and available data. The following is the analysis:

Policies for Pune, Maharashtra:

i. Land use policy:

- i. The Maharashtra Land Revenue (Conversion of use of Land and Non-Agriculture Assessment) Rules, 1969 is an Act to unify and amend the law relating to land and land revenue in the State of Maharashtra. When it comes to section 42 or 44, Section 44A was inserted by Mah. 26 of 1994 which suggested no permission required for bonafide industrial use of land. As per the present laws, where the Regional Town Planning Act of 1966 is in effect, no permission is required for non-agricultural uses. (DEPARTMENT, 2018)
- ii.Regional planning act 1996 zoned village Chakan as agricultural land but it has seen substantial illegal industrial development. This entire area was later regularized and declared as Chakan MIDC area in 2009 by State Government converting about 230 hectares of agricultural land in industrial zone affecting 127 farmers. (Maharashtra Industrial development corporation)
- iii.According to the Maharastra Land Revenue Code 1966, under the sections 36 and 36A tribal land cannot be purchased outright without the consent of the District Collector. (Brahme) Later, Rao modified Section 36A of the MLRC, 1966 as amended by the Government of Maharashtra on June 14th, 2016. The fresh notification ruled that tribal land acquisition for critical government projects does not require Gram Sabha approval in Panchayat Extension to Scheduled Areas (PESA) areas. The notification could lead to a large-scale re-allocation of tribal land for various government projects in the name of "national interest." (Sahu, 2019)
- iv.On the contrary, MIDC act can acquire any land for industrial use including the tribal land. For example, 460 hectares of tribal land in Palghar, Maharashtra has been allocated for industrial

ISSN: 0103-944X

Volume 11 Issue 1, 2023

pp: 1918-1938

activity. While tribal families from Palghar's Dahanu and Talasari talukas opposed industrialization, developing industries in Palghar (tribal district) will benefit the local population and grow the region, said government officials. Foxconn, a Taiwanese firm committed to investing \$5 billion in the state, was considered by MIDC. Palghar district president said the government took tribal lands for no compensation and promised jobs in the dairy project. However, no such jobs were given to affect tribal. (Ashar, 2017)

ii. Zoning regulation

- i. The state housing board recent policy provides an access to vast agricultural land for the development of low-cost housing through its government resolution (GR) published in 2018. Under the component of the Pradhan Mantri Awas Yojana, this initiative promotes the availability of low-cost housing for the economically disadvantaged (EWS) (PMAY). According to Maharashtra's Economically Weaker Sections (EWS) policy, a maximum Floor Space Index (FSI) of 1 will be allowed for residential construction on farm land in municipal corporations and councils. This policy is one of the major reason for converting agricultural land use to non-agricultural land use. (Atre, 2018)
- ii.A housing project conceived by Developers under Pradhan Mantri Awas Yojana at Wadgaon Khurd in Taluka Haveli of Pune district consumed 13.5 acres of agricultural land of 3 farmers. The farmers were given compensation by the developer. Pune Municipal Corporation approved this project under the provision of prescribed norms converting agricultural zone to residential zone. Many such projects are taking shape in the areas around Pune affecting the lands under agricultural zone.

iii. Master plan principles:

i.The PMRDA's (Pune Metropolitan Region Development Authority's) most recent regional plan was completed in 1990. Since then, the situation on the ground has shifted dramatically. It is unable to keep up with the rapid alterations taking place in the region. In order to create a new regional strategy, the town planning department is gathering information and conducting surveys. The draught allowed for low-density development with FSI of 0.5 in outlying villages due to overdevelopment. These areas, however, were excluded from the Urban Land Ceiling Act as undeveloped because they were zoned for agricultural or related purposes. As a means of preventing urban property concentration, the Urban Land (Ceiling and Regulation) Act 1976 was passed to ensure equitable distribution and use of vacant urban land. It is important to note that these agricultural plots were purchased legally, and even PMRDA granted their owners the right to build on them without any restrictions. In these locations, a swath of illegally constructed structures with faulty layouts arose. (Pune Municipal Corporation, 2012). One such example is the Gorhe Budruk village were builder are granted permission by PMRDA without taking gram panchayat in confidence. While issuing the permissions, the availability of infrastructure is not taken into consideration. As a result, new constructed buildings without proper layouts led to haphazard development in these areas. (Times of India., 2016)

ISSN: 0103-944X

Volume 11 Issue 1, 2023

pp: 1918-1938

iv. Farmland protection policy:

- ii. On June 14, 2016, Maharashtra Governor amended Section 36A of the MLRC, 1966. State Land Revenue Code Section 36 and 36A apply to scheduled tribes' land. The Gram Sabha no longer has to approve tribal land acquisition for critical government projects. In violation of PESA, Gram Sabha can prevent land alienation. It has no limits. As a result, state and federal laws clash. Also, Gram Sabhas are not required to be consulted when land is diverted for government projects. Who decides what's fair? In Fifth Schedule areas, Gram Sabhas loses bargaining and decision-making autonomy. In the name of "national interest," the notification could result in a massive re-allocation of tribal land. (Rao, 2019)
- iii. In the past few years, as many as 593.52 hectares of tribal land in Pune was transferred to non-tribals without authorization. Recently, the Sub-Divisional Magistrate (SDM) of Maval-Mulshi had ordered confiscation of around 190 acres of land belonging to Lavasa corporation after it was found that the land originally belonged to tribals and was transferred without following the stipulated procedure. (Biswas, 2015)

v. Farmer's right policy:

i.Concerned about farmers' issues, 190 farmer organizations formed the All India Kisan Sangharsh Coordination Committee (AIKSCC). The organizations have prepared two private member bills — The Farmers' Right to Guaranteed Remunerative Minimum Support Price for Agricultural Commodities Bill will help farmers avoid debt. Farmers are striking to force the bill through. Farmers' livelihoods are still in jeopardy. (Kamath, 2018)The Bill on MSP is now in focus again during the "Dilli Chalo" protest of the farmers where they have been demanding that both the Bills be discussed and adopted in a special 21-day session of Parliament to break the impasse. With regulated prices, guaranteed remunerative minimum support prices for the sale of all agricultural commodities, and a redressal and compensation mechanism. No legal provisions are found that will protect farmers right on their agricultural lands.

vi. Land acquisition and compensation policy:

- ii. The government of Maharashtra sought to acquire land without the consent of the landowners by being able to pay up to four or five times the ready reckoner rate. The state farmers' rally halted the progress of this bill. To show their displeasure with the state government, thousands of farmers marched from Nashik to Mumbai on March 11 in 1993. People demanded that the state not seize land for the high-speed rail link between Mumbai and Ahmedabad, or for the eight-lane Samruddhi expressway connecting Mumbai and Nagpur. (Krishna Kumar, 2018)
- iii.Land acquisition issues have slowed many of the state's major projects. The eight-lane Mumbai-Nagpur super expressway was to be built early this year. But work hasn't started yet because only 68% of the land has been acquired. However, banks have informed the state government that before loans can be issued, the state must own at least 80% of the land. Farmers in Thane and Palghar districts are refusing to cede land for the Mumbai-Ahmedabad Bullet Train. (Krishna Kumar, 2018)
- iv. Further, under the Rehabilitation Act of 2018, the state government intends to overcome land acquisition challenges for large public projects. Farmers and landowners who have lost land to

ISSN: 0103-944X

Volume 11 Issue 1, 2023

pp: 1918-1938

highway, district highway, or rural road projects will receive more money under the new law. Land compensation must be four times the registered or ready reckoner price in order to be acceptable to the state. (T. T. India, 2018)

vii. Farmer eviction and resettlement policy

i.The Chaskaman Project aims to irrigate 44,170 hectares across the river Bhima in the Krishna basin near village Bibi in the Khed tehsil of Pune district. Farmers displaced by the Chaskaman dam project, 60 km from Pune, have not been compensated for decades. The Bombay High Court has ordered Maharashtra to submit a report detailing how many farmers have been rehabilitated under the State Project Affected Persons Rehabilitation Act. It ordered the collector to provide a list of those who had not been rehabilitated and the chief secretary to appoint a committee of two commissioner-level officers to investigate. Despite a 2013 court order, the farmers' claims remain unresolved. The court reported 396 pending resettlement applications. Several families were uprooted and forced to travel. They are illiterate, and their claims were rejected even after they had submitted documents for lack of documentation. (Sequeira, 2017)

viii. Agriculture policy

- ii. Acute underdevelopment in Vidarbha, Marathwada and Konkan were major development challenges for the state. For the majority of people, agriculture served as their primary source of income. With the exception of sugar cane, the sector has lagged behind other areas in the country over the last six decades. The state policy abused the agricultural sector, putting it in jeopardy. The agricultural sector is stagnant, and arable land is being lost. Small and marginal holdings have increased significantly. (Khalil Shaha, 2020)
- iii.To resolve these issues, one of the solution Central government had directed the state governments to draft their own Agriculture Export policy. Hence, the Maharashtra state policy focus was on exports as it can help increase the net income of farmers by about 40% to 45%. The domestic market has limited capacity to give remunerative returns to farmers. (Jayashree Bhosale, 2022)

3.2. Policies for Bengaluru, Karnataka:

i. Land use policy:

- **i. Land use policy** The Karnataka government has announced that the government will not acquire land for SEZs and will leave it to the private companies to buy land from the people on the open market. It has also announced new eviction compensation and rehabilitation packages. It raises issues of social justice, however, to allow private companies to deal directly with farmers and landowners. A crucial role for governments is to ensure that all stakeholders are treated equally. (Hindu, Karnataka's economic growth slows down, agriculture major concern, 2016)
- i.Example: SEZs are planned for Uttara Kannada, Udupi, and Dakshina Kannada, respectively. Cogentrix intended to build power plant in Padubidri. The local people living near vicinity have expressed concern about social, economic, and environmental consequences of Barge Mounted Power Plant (BMPP) and Tadri port's expansion. Locals worry that it will harm their rice fields, fisheries, salt pans, and mangrove biodiversity because it is located on the fertile and productive

ISSN: 0103-944X

Volume 11 Issue 1, 2023

pp: 1918-1938

Aghanashini Estuary. In the early 1990s, a shipbreaking unit was shut down under the public pressure showcasing people's commitment towards environment.

ii.In 2004-05, SEZs accounted for just 5% of all economic activity. In addition, they employed only 1% of factory workers and invested only 3% of factory profits that year. Also, the SEZ policy has cost the central government Rs 9, 39,000 million in revenue over the next four years, or roughly 6.7% of its receipts in 2005-06. The loss of agricultural land will have an impact on the availability of food. For the most part, businesses will move to special economic zones (SEZs) solely for the tax benefits. (Amitabh Tewari, 2010)

ii. Zoning regulation

- i.The state has issued guidelines on the purchase and conversion of agricultural land for industrial use as part of its efforts to attract investors. Agricultural land can now be acquired for industrial purposes after the Karnataka Land Reforms Act, 1961, was amended by the government. After seven years of use for the permitted purpose, land exempted under Section 109 of the Act could be sold. Further, the government amended Sections 63(a), 79(a), b, and c) of the Act which would allow non-agriculturalists to purchase farmland. It also lifted restrictions on who could own farmland previously in place. Registration of land will be made easier by integrating the KUM and Kaveri portals. The rules have been simplified due to the government holding a Global Investors Meet in Bengaluru. (The Hindu, 2020)
- ii.As per new amendment any Indian, or a trust, society, company or an educational institution can buy farmland in Karnataka regardless of the buyer's annual income from non-agricultural sources. (Bureau, 2020)This change in the act has led to people buy tracts not for cultivation, but for non-farming, real estate purposes.

iii. Master plan principles:

- i.Compared to other land use categories, 16.31 percent of agriculture land has significantly contributed to development. The loss of agricultural land to urban expansion shows the ineffectiveness of urban containment policies. Since 1972, city management plans have absorbed illegal and unplanned layouts. Farmers have lost traditional economic bases as a result of urbanization of agriculture.
- ii.With a projected population of 24.7 million people by 2031, Bengaluru will account for 58 percent of Karnataka's total urban population. Agricultural areas may be unintentionally urbanized because development isn't restricted to the Bengaluru Metropolitan Area (BMA). (BDA(Bangalore Development Authority), 2017)Villages which lie outside the city limits but are close enough to be influenced by the city are rapidly urbanizing. Hence, the Satellite Town Ring Road (STRR) is proposed with an aim of decongesting the main city with better connectivity. Of the 7265 acres of land required for the construction of the STRR, 6663 acres are mostly private, agricultural land that will be acquired. (Prathigna Poonacha Kodira, 2019) This would not only impact the agricultural land but also the village settlements close by, turning them into impoverished, uninhabitable "islands." Lack of plan enforcement and implementation also means mixed but haphazard development along the major transportation corridor.

ISSN: 0103-944X

Volume 11 Issue 1, 2023

pp: 1918-1938

iv. Farmland protection policy:

i.The Karnataka government has decided to amend the Land Reforms Act, to allow non-agriculturists to buy farm land and invest in agriculture. This will increase agricultural productivity, as many poor farmers currently lack the financial resources to invest, resulting in under-utilized farm lands, according to BCIC president Devesh Agarwal. Currently, revenue courts are hearing 83,171 cases involving over 2 lakh acres under the articles 79A and B of the Karnataka Land Reforms Act 1961 which were amended by an Ordinance. The government believes that removing the restrictions will help farmers get better land prices and improve farming practices through better investments and modernization. It supports a change to the Land Reforms Act 2020 that has been proposed. **Invalid source specified.**

ii. The Karnataka Government's decision to remove the non-agricultural income ceiling and increase the number of land units a person can hold will give non-agricultural buyers the much needed boost. Repercussion of this has led to surge of rich non-farmers entering land market buying agricultural lands mostly for speculative trading. This further resulted in skyrocketing of the unit price of farmland and created an inequality in land holdings where genuine small farmers are alienated from land purchases. The land bought by the rich is kept fallow which is a big loss to agricultural production. (Bharath Joshi, 2020)

v. Farmer's right policy:

i.In spite of the fact that many farmers in the state opposed the amendment, the government is persistent in its desire to remove barriers to farmland purchase and ownership. Farmers' dissatisfaction with the Act's radical changes was revealed by an independent survey conducted by former KAPC Chairman. 59.2 percent of farmers polled said ordinance changes were "unacceptable". They were also against previous amendments to the APMC Act. (B.S. Satish Kumar, 2020)

ii.The full cabinet is debating Karnataka's ordinance to amend the Agriculture Produce Market Committee Act. With the Agricultural Produce Marketing Committee (APMC) Act amendment, the government is trying to reduce the state's role in farmer protection. The government claims the changes will benefit farmers and give them more bargaining power. (B.S. Satish Kumar, 2020) But the harsh reality, according to the farmers is that by signing the WTO (agreement), they have put their fate in the hands of international companies. After signing the agreement for an open market, they have lost the right to control the price of the produce grown by farmers. (TNN, 2021) The leader of opposition claimed that it would only benefit multinational companies and large industry players at the expense of farmers and the state exchequer.

vi. Land acquisition and compensation policy:

i.According to the Karnataka government, the new land acquisition Act, passed by the Centre and adopted by Karnataka in 2014, is hindering many departments. Many government agencies are unable to pay the compensation required by the law, which is three to four times the market price. To get around the Act, the department negotiated and shared land with other agencies.

ii.Departments such as housing, water resources, social welfare, and revenue are disproportionately impacted because they require land to construct residential layouts, hostels, schools, irrigation

ISSN: 0103-944X

Volume 11 Issue 1, 2023

pp: 1918-1938

canals, and burial grounds for their constituents, amongst other infrastructure. Since departments face significant acquisition costs under the new Act, they have opted for land sharing over cash compensation. Karnataka has long practiced land sharing. Historically, landowners have received a 60:40 split of developed land between urban and rural areas.

iii.Because the Karnataka Housing Board (KHB) is expected to provide low-cost sites, acquiring land under the new Act becomes financially unviable. They will be forced to pass on the burden to buyers if they acquire land under the Act's provisions. Both the Upper Krishna Project 3 and the Yettinahole drinking water project have been halted because the government is required to spend more than Rs. 30,000 crore just to acquire land. (TNN, High compensation: Land acquisition hurdle hits development projects, 2018)

vii. Farmer eviction and resettlement policy:

- i.The Karnataka Resettlement of Project Displaced Persons Act was passed by the state to provide for the resettlement of people displaced by public utility projects. This act appears to be a truncated version of the Land Acquisition Act.
- ii.The Karnataka Project Displaced Persons Act, 1987, is unique in that it addresses only monetary compensation and physical resettlement. For displaced people, social, economic, and environmental rehabilitation are more important than economic rehabilitation. The act presupposed that displacement is a natural part of development. So it doesn't mention avoiding or limiting displacement. Community, caste, kin and neighborhoods are not prioritized in the resettlement process. (Mangalekar, 2006)
- iii.Example: Narayanpur and Almatti Dam and Reservoir Construction is part of the Upper Krishna Irrigation Project (UKP). The Narayanpur and Almatti reservoirs are estimated to have displaced about 300,000 people, excluding canals and other irrigation structures that have caused displacement. The state of Karnataka had no official policy on project-affected people's resettlement. The GRs stated that the project's land and houses would be paid for in cash. On top of that, the reservoir submerged agricultural and common land in 53 villages. Those who lost land received cash compensation. (S.Parasuraman, 2000)

viii. Agriculture policy

- i.Karnataka's farmers have been struggling with poor technology and agricultural loan debts. A vast state with a varied topography, Karnataka suffers from frequent droughts in some areas and agricultural prosperity in others. Despite introducing and implementing policies for farmers, the Karnataka government failed to protect them, resulting in over 3500 farmer suicides from 2013 to 2020.
- ii.Rural Karnataka's agricultural marketing is still a mess. Farmers must sell their crops at a loss to local traders and middlemen because there is no sound marketing infrastructure. Because agricultural capital is locked up in lands and stocks, farmers must borrow money to boost agricultural output. The main suppliers of money to the farmer are the money-lenders, traders and commission agents who charge high rate of interest and purchase the agricultural produce at very low price. (Agricultural problems in Karnataka, 2019)

ISSN: 0103-944X

Volume 11 Issue 1, 2023

pp: 1918-1938

4. Case Studies:

A comprehensive study of farmland loss in India would aid in the selection of cities for further research. Taking base from the research paper published by Bhartendu Pandey which studied the impacts of urbanization on agricultural land loss in India from 2001 to 2010.

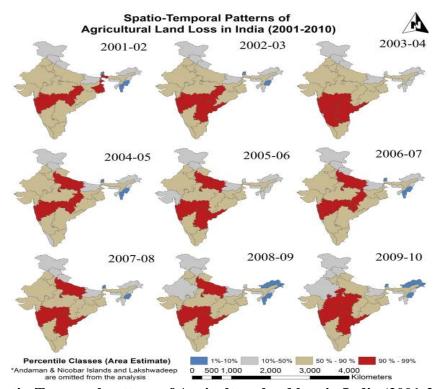


Figure 1: Spatio-Temporal pattern of Agriculture land loss in India (2001-2010) Source: (Bhartendu Pandey Karen C.Seto, 2014)

According to the research paper, agricultural land loss was concentrated in seven states, with Maharashtra suffering the highest losses. In addition to Maharashtra, findings show that Andhra Pradesh, Uttar Pradesh, Madhya Pradesh, West Bengal, Chattisgarh, and Karnataka experienced significant agricultural land loss. The researcher identified a number of districts that included relatively small but rapidly growing cities that consumed prime agricultural land. Examples include the districts of Nagpur (Maharashtra), Lucknow (Uttar Pradesh), Jaipur (Rajasthan), Pune (Maharashtra), Ludhiana (Punjab), Kanpur (Uttar Pradesh), Thane (Maharashtra), and others. (Bhartendu Pandey Karen C.Seto, 2014)

Based on the data, four cities from the seven states with significant farmland loss were identified: Pune (Maharashtra), Bengaluru (Karnataka), Lucknow (UP), and Kolkata (WB).

4.1 Case Study brief

Four cities from four states were studied to identify and quantify the problem of farmland loss and farmer displacement. These are Pune (Maharashtra), Bengaluru (Karnataka), Lucknow (UP), and Kolkata (WB). Also, the proposed capital of Andhra Pradesh, Amaravati, is being thoroughly researched as India's most effective land pooling model to date.

ISSN: 0103-944X

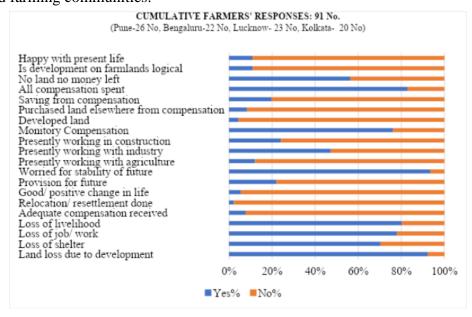
Volume 11 Issue 1, 2023

pp: 1918-1938

All the cities are studied in following format:

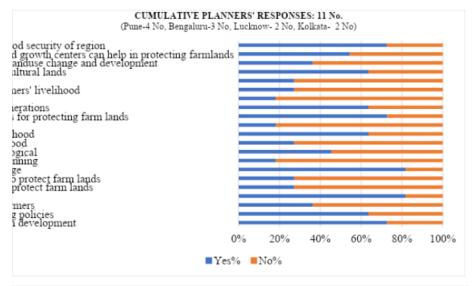
- 1. Introduction of city
- 2. History of city
- 3. Urban expansion and farmland loss in city
- 3.1 Urban expansions in city
- 3.2 Farmland loss in city
- 3.3 Displaced farmers in city
- 3.4 Planning instruments to control farmland
- 3.5 Urban expansion and land use change (1971 -2018)

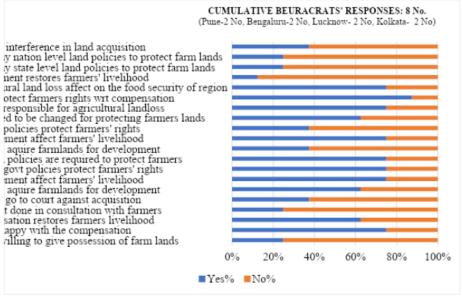
The study of cities on above parameters would provide valuable insights into the development of a city over time. The statistical data and graphs adhere from study for understand trends and patterns in these parameters. Additionally, the use of evolution maps can provide a visual representation of the urban expansion of a city, which can be particularly useful for understanding how the city has grown and developed over time. By combining these different sources of information, researchers can gain a comprehensive understanding of the factors that have shaped a city's development and the impact of urbanization on the surrounding farmland and communities. Analyzing the different parameters of planning instruments to control farmland loss will aid identify areas where improvements can be made and inform future policy decisions related to urban development. By considering the historical context of a city's growth and the impact of urbanization on the surrounding agricultural land, policymakers can make more informed decisions about how to balance the need for urban development with the preservation of valuable farmland and farming communities.

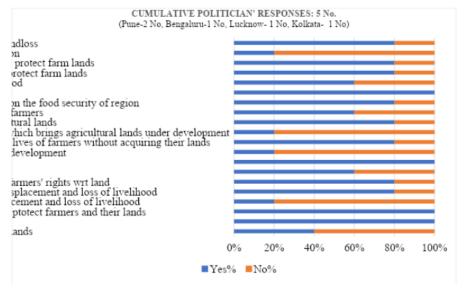


ISSN: 0103-944X

Volume 11 Issue 1, 2023







ISSN: 0103-944X

Volume 11 Issue 1, 2023

pp: 1918-1938

A comparison of existing development policies, planning policies, land use policies, zoning regulations, master plan principles, farmland protection policies, farmers' rights policies, land acquisition and compensation policies, farmer eviction and resettlement policies, and agricultural policies in all four cities reveals no consistency. Every state has been found to implement these policies according to their convenience and political agenda.

Land Use Policy Weaknesses:

Agricultural land in Maharashtra can now be purchased for investment purposes. According to a 1994 Government Ordinance, permission for N.A. uses is not required in areas covered by the Regional Town Planning Act of 1966 or legally declared Industrial zones. As a result of the amendments, large horticulture land holdings are now allowed to be owned by anybody.

Maharashtra Land Revenue Code 1966 affects landowners who belong to scheduled tribes. As a result, tribal land cannot be purchased without the consent of the District Collector. In today's "free market" environment, these provisions are routinely flouted. (Brahme)

To avoid acquiring land for SEZs, the Karnataka government has stated that private companies can buy land from individuals. In addition, it has announced new eviction compensation and rehabilitation programmes. However, allowing for-profit corporations to deal directly with farmers and landowners raises questions of social equity. (Hindu, 2016)

A hands-off land policy in West Bengal appears irrational and counter-productive for industry, as it leaves the entire land transaction to the market. In a free market, land mafias thrive, driving up land values and project costs. Giving the state complete control over land transactions would lead to political and bureaucratic corruption. (An economist criticises Bengal's land and SEZ policies, 2013)

One of Uttar Pradesh's major land use policy flaws is the absence of conversion charges. If the developer's chosen site is outside the Master Plan 2021 development area, it will be brought within the development area under the terms of the November 2005 Memorandum of Understanding (MoU), and if land use conversion is required, the developer will be charged the GoUP's relatively low land use conversion charges.

Zoning Regulations Weaknesses:

Agriculture land will be made available for affordable housing under new planning laws. The result is that private developers are buying up agricultural land in peri-urban areas at high prices. As cities grow, the ratio of food producers to consumers will shrink. Large-scale imports have been made to meet rising food demand. (2018)

Land covered with vegetation is included in Bengaluru's definition. The green belt was lifted into the yellow belt in 1995, reducing the city's greenery share to 595 square kilometres. New layouts and industrials were built in the converted areas. So many IT companies sprung up around cities during this time. (2013, J)

In West Bengal's East Kolkata Wetlands, the High Court banned conversion of water bodies and agricultural land. However, without a management plan, significant portions of the area were lost to illegal construction and encroachment over the next decade. Enviro-activists fear the move will

ISSN: 0103-944X

Volume 11 Issue 1, 2023

pp: 1918-1938

kill the world's largest organic sewage management system and suffocate Kolkata, as proposed by the West Bengal government. Bhatta (2017)

Master Plan Principles Weaknesses:

A FSI of 0.5 was allowed in outlying villages under the first Metropolitan Plan. These areas, on the other hand, were exempt from the Urban Land Ceiling Act due to their designation as agricultural or closely related. It is important to note that these agricultural plots were purchased legally, and some gram panchayats even granted their owners the right to build on them without any restrictions. In these locations, a swath of illegally constructed structures with faulty layouts arose. (2012, PMC)

Bengaluru's urban sprawl at the expense of agricultural land demonstrates the city's ineffective urban containment policy. Since 1972, city management plans have absorbed illegal and unplanned layouts. Farmers have lost traditional economic bases as a result of urbanization of agriculture. Agriculture areas may be unplanned urbanised due to limited development in Bengaluru Metropolitan Area. It's important to note that local Panchayats propose development interventions that will not only affect agricultural land, but will also affect nearby village settlements, resulting in poverty islands with inadequate infrastructure. (Authority)

Kolkata's growth has posed many challenges. Firstly, the current situation changes the interdependence of rural and urban areas. Rural areas are becoming more attractive due to regional transportation networks and facilities. Banks, schools, and other amenities are enticing developers to the countryside. Second, due to their location within panchayat areas, rural outskirts are growing rapidly and without control. This is a regional issue. Drittens, the location of industry in new towns is a hot topic. Industries are located in environmentally safe areas to protect the new town and its surroundings. As the surrounding rural areas develop, this will become the developed area's hub. (Undated)

The Lucknow Development Authority (LDA) announced that the master plan 2031 will include the city's outskirts. This would empower LDA to approve maps in these areas. Currently, Zilla Panchayats sanction. The UP Urban Planning and Development Act 1973 empowers the LDA to approve the map. Compared to the LDA's development fee, the Zilla Panchayat's sanctioning fee is minimal. The panchayat fee is usually 1/4 of the LDA development fee. Building codes are frequently violated when developers obtain panchayat-approved maps. Once these villages are in the master plan, all surrounding land and properties will be under the LDA's jurisdiction, even if their maps have been approved by the panchayat. This will affect those who have purchased properties in the surrounding areas without checking if the LDA has approved the map. On Sitapur, IIM, Kanpur and Faizabad Roads are many illegal structures. Interestingly, the LDA has been silent on the issue of unauthorised constructions in the city. Lucknow Development Authority to Announce Master Plan 2031 in 2014)

Farmland Protection Policy Weaknesses:

Governor of Maharashtra amended Section 36A of the MLRC, 1966, on June 14th, 2016. Gram Sabha approval is not required for tribal land acquisition for critical government projects in Panchayat Extension to Scheduled Areas (PESA) areas. News that should worry tribal members,

ISSN: 0103-944X

Volume 11 Issue 1, 2023

pp: 1918-1938

as the institution is tasked with upholding the PESA guarantees of tribal resource rights and tribal gramme sabha autonomy. (V. Rao, 2019)

This will increase agricultural productivity, as many poor farmers currently lack the financial resources to invest, resulting in underutilised farm lands, according to BCIC president Devesh Agarwal. The Karnataka Government's decision to remove the non-agricultural income ceiling and increase the number of land units a person can hold will give non-agricultural buyers the much needed boost. It applauds a proposed amendment to the Land Reforms Act 2020.

Kolkata Politian's may be willing to sacrifice the state's industrial prospects to "protect farmland" in Singur, but Nano wave farmers are willing to sell their plots for a profit. The Tata project has increased land values, and farmers are receiving four to five times the compensation. Farmers will sell their land to make more money. (Mukherji) By amending Section 80 of the UP-Revenue Code (Amendment) Bill 2019, the process of converting agricultural land to non-agricultural land was made simpler. An agricultural landowner in the state can convert their property to industrial, commercial, or residential use if they so choose, according to the ordinance. The owner can lease the land for agricultural purposes or to establish solar energy projects in the state. (RANGANATH 2019)

Farmers' Rights Policy Weaknesses:

Farmers are striking to support the bill's passage. The All India Kisan Sangharsh Coordination Committee (AIKSCC), a coalition of over 190 farmer organizations, will permanently resolve this issue. Farmers are still in a bind.

The government strongly supports amending the Karnataka Land Reforms Act, 1961 to remove restrictions on farm land purchase; however, many farmers across the state voted against the amendment. Only 33% of farmers supported the government's proposed changes in the agricultural sector. (Kumar)

Although pro-farmer governments have ruled for over four decades, the administration has failed to implement farm assistance programmes. Despite various government programmes for rural areas, local moneylenders known as Mahajans and other non-institutional credit sources are important market participants. As a result of a bumper potato harvest, several farmers in the state have committed suicide. (Sumaya Das)

Except for widows, minors, and people with disabilities, the Uttar Pradesh Zamindari Abolition and Land Reforms Act of 1950 prohibited land leasing. To the contrary, research shows that leasing prohibitions have harmed agricultural growth, social equity, and rural development investment. As a result, it is difficult for marginal farmers to secure formal leases for land, which increases their sense of insecurity. (2019)

Land Acquisition and Compensation Policy Weaknesses:

To show their displeasure with the state government, thousands of farmers marched from Nashik to Mumbai on March 11. People demanded that the state not seize land for the high-speed rail link between Mumbai and Ahmedabad, or for the eight-lane Samruddhi expressway connecting Mumbai and Nagpur.

ISSN: 0103-944X

Volume 11 Issue 1, 2023

pp: 1918-1938

Farmer compensation is a key goal of a new land acquisition Act signed into law by the Union government and the state of Karnataka in 2014. Many government agencies are unable to pay the compensation required by the law, which is three to four times the market price. Negotiation and land sharing are the only ways they can get around the Act. (T. T. India, High compensation stymies land acquisition, 2018)

Singur, 40 kilometres from Kolkata, was chosen by the Left Front government as the site for Tata Motors' Nano factory in 2008. The Land Acquisition Act of 1894 was passed by the British government. Others objected because they believed that by authorizing land seizures, the government was essentially guaranteeing that all land would one day belong to the state. (Singur Decision Impact on Land Acquisition, 2016)

LIDA had four land acquisition cases involving 1,985.14 acres in Natkur, Miranpur Pinwat, Banthra Sikandarpur, and Kurauni villages. Despite this, it has yet to complete the Master Plan for its notified area, failing to achieve its goal of industrial development. The Hon'ble High Court quashed LIDA's land acquisition because the Department delayed issuing notification under Section 6/17 and failed to prepare a Master Plan. SLAO deducted acquisition charges, resulting in a loss of 7.06 crore. The resumption of Gram Sabha land was also delayed by 6.45 crore due to delays in surveying and planning. In line with the 2012 Infrastructure and Industrial Investment Policy, the Department of Infrastructure and Industrial Development did not set deadlines for acquiring industrial land. As a result, the government's land acquisition is delayed. adm (Authority, 2015)

Farmers' Eviction and Resettlement Policy Weaknesses:

The policy's major flaws are not living up to expectations. Farmers affected by the Chaskaman dam project, 60 km from Pune, are one example. Not for decades, anyway. Despite a 2013 court order, the farmers' claims remain unresolved. The court reported 396 pending resettlement applications. Several families were uprooted and forced to travel. The farmers are also illiterate, and their claims were denied despite having submitted documents, citing insufficient documentation. (Sequeira)

Uniquely, it only addresses monetary compensation and physical resettlement for displaced individuals. People who have been displaced place greater importance on social, economic, and environmental rehabilitation than on economic rehabilitation. Assumption made: Displacement is a normal part of growth. So it doesn't mention avoiding or limiting displacement. Community, caste, kin and neighborhood are not prioritized in the resettlement process. (Mangalekar)

Incidence of urbanization on displacement and resettlement on the affected population's quality of life Research has shown the resettled population's precarious situation. After resettlement, people suffer multiple losses, such as the loss of their homes, jobs, and other community resources. To fully comprehend the impacts, both uprooted and settled households must be examined. First, the resurvey reveals that residents are still unhappy with the small housing units. (Shaw)

In the Uttar Pradesh districts of Ghaziabad and Lucknow, a 2011 study examined the amount of land lost by farmers and the compensation paid to them. Despite their protests and agitations, this study found that farmers had been worse off in the past, and that the State had responded coldly to their genuine demands. Households complained that their compensation was inadequate and did

ISSN: 0103-944X

Volume 11 Issue 1, 2023

pp: 1918-1938

not replace previous income. They felt cheated by the state by paying lower compensation rates than should have been due to their land's high fertility. After several years of land acquisition for industrial and housing projects, many effected farmers, over 40%, were unable to receive full compensation for one or more reasons.

Agriculture Policy Weaknesses:

The agricultural sector is stagnant, and arable land is being lost. Small and marginal holdings have increased significantly. Due to policy paralysis, the sector is largely reliant on sporadic firefighting approaches. The Covid-19 virus has shattered the illusion that Maharashtra is one of the most economically advanced states, and economic decline is expected. Khalil Shaha

Agriculture policymaking is complex. The unorganized nature of agriculture means that policies cannot be predicted with certainty. Second, the agricultural sector receives less information than other sectors. Third, climate change and agriculture. Fourth, the sector's land and asset distribution is asymmetric. (Punithkumar)

West Bengal offers numerous opportunities for agricultural growth. Agricultural prices are generally less volatile than international prices. The situation is rapidly changing due to heavy agricultural export subsidies by developed countries due to WTO obligations. International agricultural prices have fallen below Indian agricultural prices, severely affecting state farmers. Sarkar (2011)

Poor infrastructure and forward industry links continue to plague Uttar Pradesh's agrarian economy. Agriculture also significantly contributes to the state's GDP (SGDP). Almost 90% of the state's farmers are small-scale, without access to institutional credit. Other crops, like pulses, have shown stagnant or declining growth. Almost half of UP's small farmers are in debt. Worse, agriculture's share of total plan expenditure is shrinking, and public investment in agriculture is declining. (Rawat)

•Results and Conclusions:

Considering the conclusions obtained from the study and comparison of existing policies, case studies, surveys and interviews of stake holders (affected farmers, planners, bureaucrats and politicians) for Pune, Bengaluru, Kolkata and Lucknow, content analysis, following recommendations are proposed:

- •Presently existing land use conversion policies are majorly dealt at state to state level. A central level policy with allowance to prioritize the state level issues needs to be proposed which can control land use change issue more seriously in all states with a common law to avoid state to state discrepancies.
- •All the villages in all the states to be categorized as per the scale of present agricultural activities, potential of sustaining agricultural activities in future and the population of agricultural communities and farmers in the villages. Allowance of inclusion of the villages in the city limits and land use change should be decided as per the village categories. Villages having rich fertile lands and having more than 70% occupation on agriculture should be strictly restricted from inclusion in city limits and land use change. Villages with fertile lands and agricultural occupation between 50% to 75% should be allowed partially for city inclusion and land use change of

ISSN: 0103-944X

Volume 11 Issue 1, 2023

pp: 1918-1938

uncultivable lands without disturbing agricultural lands and agricultural activities with due consent of farmers and agricultural communities whose livelihood is fully dependent on agriculture. Villages where agricultural lands have lost the soil fertility and the future agricultural potential should be considered for land use change with adequate compensation and relocation to affected farmers and agricultural communities so as to protect their future livelihood.

- •Compensation policy to be reworked so as to protect livelihoods of affected farmers on long term basis by providing alternate agricultural lands, fair chance in good education and government jobs, adequate financial compensation considering future needs, etc.
- •Compensation in terms of alternate agricultural land will help the farmers to continue with their primary occupation of farming to survive as most of them are not trained for any other skills.
- •Fair chance to education will help the future generations in understanding advanced agricultural practices, financial planning, socio-economic aspects which can improve their intellectual status and livelihood.
- •Compensation in terms of government jobs will secure the livelihood of farmers who won't have any source of income after their lands are lost in the process of urbanization.
- d. Vertical expansion of cities should be encouraged to take care of future population and economic growth of the city so that surrounding villages with agricultural activities can be protected. Vertical expansion will allow accommodating more population density on lesser area of land which intern will help in preserving the agricultural lands.
- e. Policies for urbanization of villages with prominent agricultural activities to be formed so as to improve living conditions of villages with adequate water, sanitation, electricity, road networks and connectivity, good health and hygiene facilities, internet and digital infrastructure facilities so that existing agricultural activities can be enhanced. Improved living conditions in the villages and opportunities for enhanced agricultural practices with optimized yield giving better income will encourage the future generations to continue with agricultural activities as major occupation.

The overall result of formulating various policies in the domains of the aforementioned recommendations will assist in safeguarding agricultural lands from urbanization, providing fair compensation to farmers losing their lands, inclusive development with better living conditions in the villages, enhanced livelihood with good education and employment opportunities, and offering fair chance to live for the agricultural communities in India with protected livelihood.

References:

- [1] Gugler, J., & Smith, D. A. (1996). Third World Cities in Global Perspective: The Political Economy of Uneven Urbanization. Contemporary Sociology, 25(5), 609. doi: 10.2307/2077542
- [2] Balchin, Paul N., David Isaac, and Jean Chen. "Conclusions." Urban Economics, 2000, 524–32. https://doi.org/10.1007/978-1-137-06223-9_11.

ISSN: 0103-944X

Volume 11 Issue 1, 2023

- [3] Oberai, A. S. (1993). Introduction. Population Growth, Employment and Poverty in Third-World Mega-Cities, 1–19. doi: 10.1007/978-1-349-23064-8_1
- [4] Carter, Ronald. "Keywords In Language And Literacy," 1995. https://doi.org/10.4324/9780203293652.
- [5] Nuwagaba, Augustus. "Dualism in Kampala: Squalid Slums in a Royal Realm." African Urban Economies, 2006, 151–65. https://doi.org/10.1057/9780230523012_6.
- [6] Foeken, Dick, WijnandKlaver, Samuel O. Owuor, and Alice M. Mwangi. "Market Forces Threatening School Feeding: The Case for School Farming in Nakuru Town, Kenya." Markets of Well-Being, January 2010. https://doi.org/10.1163/9789004201286_005.
- [7] Abdissa, Feyera, and TerefeDegefa. "Urbanization and Changing Livelihoods: The Case of Farmers' Displacement in the Expansion of Addis Ababa." The Demographic Transition and Development in Africa, 2010, 215–35. https://doi.org/10.1007/978-90-481-8918-2_11.
- [8] Cernea, Risks Safeguards and Reconstruction: A Model for Population Displacement and Resettlement, Economic and Political Weekly, October 7, 2000. https://doi.org/10.1596/0-8213-4444-7.
- [9] Sami, Neha. "From Farming to Development: Urban Coalitions in Pune, India." International Journal of Urban and Regional Research37, no. 1 (April 2012): 151–64. https://doi.org/10.1111/j.1468-2427.2012.01142.x.
- [10] Jawaid, M.f., Manish Sharma, SatishPipralia, and Ashwani Kumar. "City Profile: Jaipur." Cities68 (2017): 63–81. https://doi.org/10.1016/j.cities.2017.05.006.
- [11] Shukla, Anugya, and Kamal Jain. "Critical Analysis of Rural-Urban Transitions and Transformations in Lucknow City, India." Remote Sensing Applications: Society and Environment13 (2019): 445–56. https://doi.org/10.1016/j.rsase.2019.01.001.
- [12] Hemani, Shruti, and A.k. Das. "City Profile: Guwahati." Cities 50 (2016): 137–57. https://doi.org/10.1016/j.cities.2015.08.003.
- [13] Jiang, Yanpeng, Paul Waley, and Sara Gonzalez. "Nice Apartments, No Jobs': How Former Villagers Experienced Displacement and Resettlement in the Western Suburbs of Shanghai." Urban Studies55, no. 14 (2018): 3202–17. https://doi.org/10.1177/0042098017740246.
- [14] Guha, Abhijit. "The Macro-Costs of Forced Displacement of the Farmers in India: A Micro-Level Study." The European Journal of Development Research25, no. 5 (2013): 797–814. https://doi.org/10.1057/ejdr.2012.37.
- [15] Robertson, B., &Pinstrup-Andersen, P. (2010). Global land acquisition: neo-colonialism or development opportunity? Food Security, 2(3), 271–283. doi: 10.1007/s12571-010-0068-1
- [16] Juneja, V., Singh, S., Jain, V., Pandey, K. K., Dhabliya, D., Gupta, A., & Pandey, D. (2023). Optimization-Based Data Science for an IoT Service Applicable in Smart Cities. In Handbook of Research on Data-Driven Mathematical Modeling in Smart Cities (pp. 300–321). IGI Global.
- [17] Sampat, P. (2010). Special Economic Zones in India: Reconfiguring Displacement in a Neoliberal Order? City & Society, 22(2), 166–182. doi: 10.1111/j.1548-744x.2010.01037.x

ISSN: 0103-944X

Volume 11 Issue 1, 2023

- [18] Dwivedi, R. (1999). Displacement, Risks and Resistance: Local Perceptions and Actions in the SardarSarovar. Development and Change, 30(1), 43–78. doi: 10.1111/1467-7660.00107
- [19] Wilmsen, B. (2018). Is Land-based Resettlement Still Appropriate for Rural People in China? A Longitudinal Study of Displacement at the Three Gorges Dam. Development and Change, 49(1), 170–198. doi: 10.1111/dech.12372
- [20] Sarkar, A. (2012). Development, Displacement, and Food Security: Land Acquisition in India. Oxford Handbooks Online. doi: 10.1093/oxfordhb/9780199734580.013.0011
- [21] Zaehringer, J. G., Wambugu, G., Kiteme, B., & Eckert, S. (2018). How do large-scale agricultural investments affect land use and the environment on the western slopes of Mount Kenya? Empirical evidence based on small-scale farmers perceptions and remote sensing. Journal of Environmental Management, 213, 79–89. doi: 10.1016/j.jenvman.2018.02.019
- [22] Pandey, J. K., Veeraiah, V., Talukdar, S. B., Talukdar, V. B., Rathod, V. M., & Dhabliya, D. (2023). Smart City Approaches Using Machine Learning and the IoT. In Handbook of Research on Data-Driven Mathematical Modeling in Smart Cities (pp. 345–362). IGI Global.
- [23] Meher, R. (2009). Globalization, Displacement and the Livelihood Issues of Tribal and Agriculture Dependent Poor People. Journal of Developing Societies, 25(4), 457–480. doi: 10.1177/0169796x0902500403
- [24] Ghatak and Ghosh (2011). The Land Acquisition Bill: A Critique and a Proposal
- [25] Admasu, W. F., Passel, S. V., Minale, A. S., Tsegaye, E. A., Azadi, H., &Nyssen, J. (2019). Take out the farmer: An economic assessment of land expropriation for urban expansion in Bahir Dar, Northwest Ethiopia. Land Use Policy, 87, 104038. doi: 10.1016/j.landusepol.2019.104038
- [26] Liu, Y., Lin, Y., Fu, N., Geertman, S., &Oort, F. V. (2018). Towards inclusive and sustainable transformation in Shenzhen: Urban redevelopment, displacement patterns of migrants and policy implications. Journal of Cleaner Production, 173, 24–38. doi: 10.1016/j.jclepro.2016.09.224
- [27] Marshall, F., &Dolley, J. (2019). Transformative innovation in peri-urban Asia. Research Policy, 48(4), 983–992. doi: 10.1016/j.respol.2018.10.007
- [28] Wei, Y. D., & Ewing, R. (2018). Urban expansion, sprawl and inequality. Landscape and Urban Planning, 177, 259–265. doi: 10.1016/j.landurbplan.2018.05.021
- [29] Gibson, J., Boe-Gibson, G., &Stichbury, G. (2015). Urban land expansion in India 1992–2012. Food Policy, 56, 100–113. doi: 10.1016/j.foodpol.2015.08.002
- [30] Boeck, F. D. (2019). Urban expansion, the politics of land, and occupation as infrastructure in Kinshasa. Land Use Policy, 103880. doi: 10.1016/j.landusepol.2019.02.039
- [31] Huang, X., Huang, X., He, Y., & Yang, X. (2017). Assessment of livelihood vulnerability of land-lost farmers in urban fringes: A case study of Xian, China. Habitat International, 59, 1–9. doi: 10.1016/j.habitatint.2016.11.001
- [32] Gomes, E., Abrantes, P., Banos, A., Rocha, J., & Buxton, M. (2019). Farming under urban pressure: Farmers land use and land cover change intentions. Applied Geography, 102, 58–70. doi: 10.1016/j.apgeog.2018.12.009

ISSN: 0103-944X

Volume 11 Issue 1, 2023

- [33] Admasu, W. F., Passel, S. V., Minale, A. S., Tsegaye, E. A., Azadi, H., &Nyssen, J. (2019). Take out the farmer: An economic assessment of land expropriation for urban expansion in Bahir Dar, Northwest Ethiopia. Land Use Policy, 87, 104038. doi: 10.1016/j.landusepol.2019.104038
- [34] Talukdar, V., Dhabliya, D., Kumar, B., Talukdar, S. B., Ahamad, S., & Gupta, A. (2022). Suspicious Activity Detection and Classification in IoT Environment Using Machine Learning Approach. 2022 Seventh International Conference on Parallel, Distributed and Grid Computing (PDGC), 531–535. IEEE.
- [35] Wang, S., Tan, S., Yang, S., Lin, Q., & Zhang, L. (2019). Urban-biased land development policy and the urban-rural income gap: Evidence from Hubei Province, China. Land Use Policy, 87, 104066. doi: 10.1016/j.landusepol.2019.104066
- [36] Guite, L. (2019). Assessment of urban sprawl in Bathinda city, India. Journal of Urban Management, 8(2), 195–205. doi: 10.1016/j.jum.2018.12.002
- [37] Das, M., & Das, A. (2019). Dynamics of Urbanization and its impact on Urban Ecosystem Services (UESs): A study of a medium size town of West Bengal, Eastern India. Journal of Urban Management. doi: 10.1016/j.jum.2019.03.002
- [38] Sony Pillissery, Benjamin Davy & Harvey M. Jacobs (2018). SPRINGER. (2018). Land Policies In India: promises, practices and challenges. S.l.
- [39] Locke: From the Second Treatise (in Two Treatises of Government, 2nd edn, 1698). (n.d.). Locke on Toleration, 47–49. doi: 10.1017/cbo9780511779190.006
- [40] Private Property: The History of an Idea. By Richard Schlatter. (New Brunswick: Rutgers University Press. 1951. Pp. 284. \$2.50.). (1953). The American Historical Review. doi: 10.1086/ahr/58.4.877
- [41] OHCHR report on Sri Lanka (HRC 25th, 2014, OS). (n.d.). Human Rights Documents Online. doi: 10.1163/2210-7975_hrd-2957-2014018
- [42] Shea, J. T. J. (1956). Implementing Land Reform in India. Far Eastern Survey, 25(1), 1–8. doi: 10.1525/as.1956.25.1.01p1009k
- [43] T. Haque (2000), Land Use Planning In India -Retrospect And Prospect, National Fellow, National Centre for Agricultural Economics and Policy Research, New Delhi
- [44] Raghu babuNukala& Dieter Mutz (2015), Strategic Approach for Sustainable land use in an Emerging Country- Case study of India, 2015 World Bank Conference on Land and Poverty, The World Bank- Washington DC.
- [45] AnisMuknopadhyay (2015), Legal Framework for Urban Planning and Development, Centre for Urban Economic Studies, Calcutta University.
- [46] DIRECTORATE OF CENSUS OPERATIONS, U.P., Census of India 2011(UTTAR PRADESH). 2011: LUCKNOW.
- [47] Kumari, D.K., Urban Sprawl: A Case Study of Lucknow City. International Journal of Humanities and Social Science Invention, 2015: p. 11-20.
- [48] Jain, A.S.K., Critical analysis of rural-urban transitions and transformations in Lucknow. 2019. p. 445-456.
- [49] Upendra Bhai Patel, B.L.T., POPULATION AND URBAN SPRAWL IN LUCKNOW CITY: PROBLEMS & PROSPECTS. Journal of Global Resources, 2019: p. 01-12.

ISSN: 0103-944X

Volume 11 Issue 1, 2023

- [50] City Development Plan, Lucknow. 2006, Government of Uttar Pradesh: Lucknow.
- [51] Dutta, D.V., War on the Dream How Land use Dynamics and Peri-urban. 2012, Global Development Network (GDN).
- [52] S.S.A.Jafri, S.M.S.J., URBAN PANORAMA. Journal of Urban Governance & Management, 2011: p. ISSN: 0975-8534.
- [53] Shukla, N., First environment policy of UP to check diversion of agriculture land for non-agriculture use, in The Times of India. 2017.