

Land use Governance and Food Security



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Background

- Land is one of the natural resources of a nation. Changing techniques of production, pattern of utilization of resources, industrialization, urbanization, changing life styles, rising aspirations, change in the consumption pattern are some macro level factors which make the relationship between population and land use much more complex.
- The land man ratio has been declining steadily over years. India is experiencing rapid growth of population, particularly in the post independence era. However, not enough is known about the magnitude of these land use changes and the relationship of these changes to population growth.
- In accordance with the RIO-Agenda of 1992 sustainable land use management is again on the political agenda worldwide.
- In this regard many Indian states framed land use policy and also formed land regulation bodies.

Land use governance - Agriculture sector

- Conversion of rain-fed crop lands to Irrigated lands due large number of irrigation projects by government and ground water extraction for irrigation changed the traditional farming practices (agro-climatic conditions) in India.
- The proposed Bio-fuel policy of India of converting crops lands to bio-fuel plantations will going to affect both on food security and employment opportunities of farming sectors of India
- Setting up an SEZ on fertile agriculture lands also change land use patterns.
- Introduction of GMOs affect both our environment and food safety protocol. It also adversely affect the organic farming policy.
- Integrated River basin/watershed policy for Managing land resources helps solving disputes between states and nations.
- Public Private Partnership (PPP) projects for water resource management.

Land use Governance - Forestry sector

- Forest land governance (people vs nature) with the context of Forest Rights Acts in India, is going to create more fragmentation in Reserve Forest and Protected area of India.
- Developmental projects in forest areas – Displacement of communities and migration.
- Forest encroachments and food security issue
- Impact of Land-tenure rights issues on watershed management
- Traditional forest use rights -Privilege on use of forests for organic manure/fodder/fuelwood.
- Conversion of degraded forest lands to energy plantations.

Land use governance - Urban Environment

- The 74th Constitutional amendment aimed at improved urban governance - by empowering urban local bodies in India
- It also aimed at giving voice to the citizens - through the district planning committees (DPC) and metropolitan planning committees (MPC)
- Indian planners used master plans as an important tool for guiding urban development from the sixties onwards
- Impact of extending city limits due to rapid urbanization – Greater Mumbai, Greater Bangalore
- Floor area ratio and Urban land ceiling
- What is the impact of regulations on suburbanization (horizontal city growth) in India's Urban Agglomerations?
- Mega cities project of UN
- JNNURM – launched in 2005 - for integrated and planned development of cities - mandates preparation of city development plans (CDP) in close association with stakeholders - to be in tune with the statutory MP

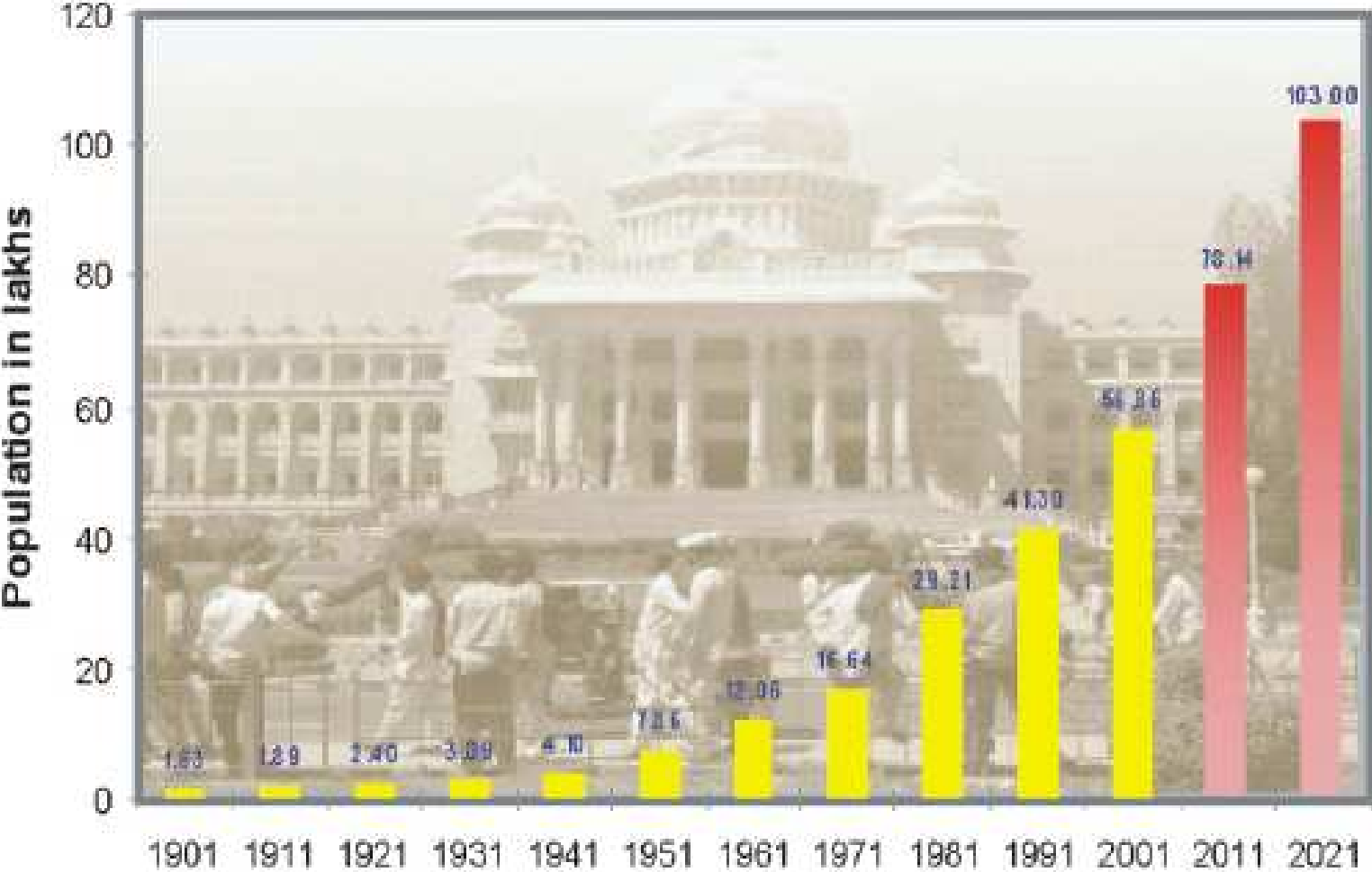
Urbanization scenario of India

- India's mega-cities and its 4,000 cities and towns account for 60% of the gross domestic product.
- In 2001 the percentage of urban population is 28%; 35 cities have population more than a million; compared to 23 cities in 1991.
- By 2015 more than half of Indians are projected to be urban dwellers; 1/3 will be slum dwellers and squatters.
- In the national capital region 1/2 of households and 1/3 of population were migrants and a little less than 1/2 of migrants were from rural areas.
- The urban to urban stream of migration was found to be more important for larger cities like Delhi. About 1/3 the migrant households were in the category of urban poor households.

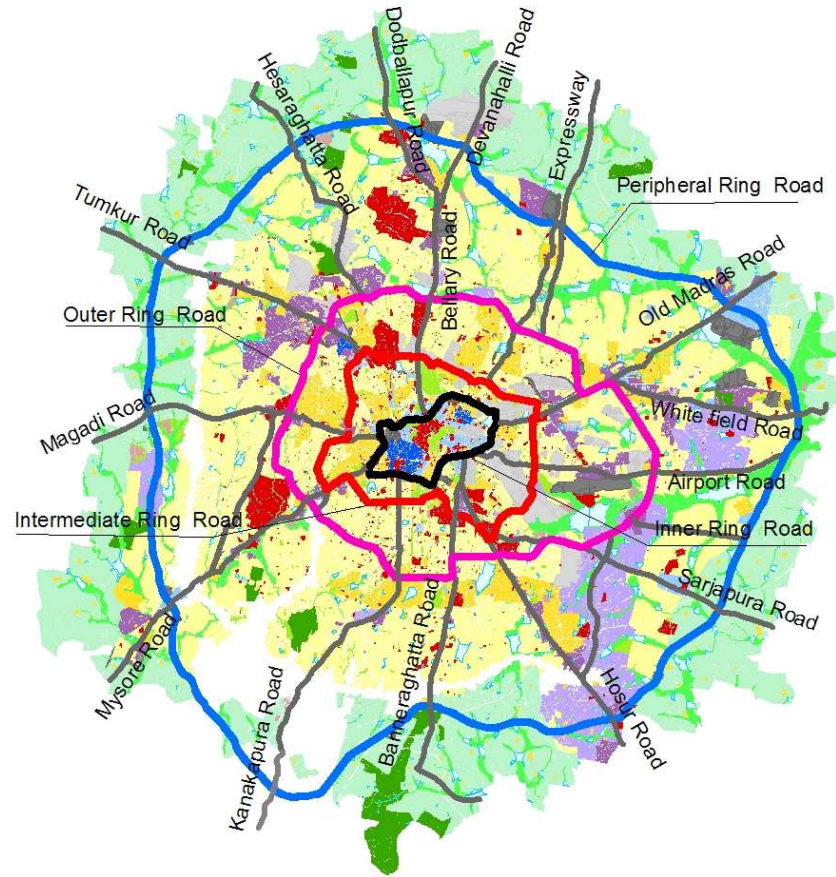
Urban land use change – A case of Bangalore

- Bangalore city, the capital of the Indian state of Karnataka is one of the fastest growing cities in India with a population growth of 3.25% per annum and it is expected that the city's population will touch 10 million by 2021
- The phenomenal growth of the city was spurred by the governmental agencies and public sector industries to begin with and later on it was led by the booming IT sector.
- Bangalore city has a salubrious climate, a high quality of life, a cosmopolitan ambience and social diversity and the city is often called “IT Hub of Asia” and also “Silicon Valley of India.” Master Plan (MP) is prepared under the Karnataka Town and Country Planning Act.
- The Bangalore Development Authority (BDA) was the local planning authority for preparing the Master Plan-2015 for Bangalore city
- MP was published in June 2007
- The Master Plan – 2015 covers a Local Planning Area of 1307 sq. kms and consists of 387 villages, 7 City Municipal Councils (CMCs) and 1 Town Municipal Council (TMC)

Population growth – Fastest in Asia



BANGALORE CITY MAP



Research Issues for Land use governance

- Formulation of economically and environmentally viable projects for each sector i.e. forests, agriculture, urban, horticulture to translate **land care into people's movement**.
- **Land and Housing rights** to urban and rural poor in the face of climate, food and energy crisis.
- Strengthening **EIA/SEA** for land conversion from one form to other
- Preparation of **Land Use Atlas** for all the sectors
- Use of **Spatial data and advanced GIS software's** for modeling studies to predict and understand the future land use change.
- Generation of **strong political/ administrative will** to implement land use regulations with the cooperation of community.

Research Issues on Land use governance

- Migration studies – **Urban growth and rural decline**
- Use of **Information Technology** for computerized and updated Land Records – Bhoomi project of Karnataka
- Inclusion of **Climate change mitigation and adoption in land use policy** of government
- Developing **Integrated river basin** policy
- Implication of **Bio-fuel policy** on food security

- Thank You