

Assessment and Impact Study of the Socioeconomic Outcomes of Land Reclamation in Mumbai's Koli Settlements

MASHAL conducted an **Assessment and Impact Study of the Socioeconomic Outcomes of Land Reclamation in Development and Rehabilitation Projects Implemented in Mumbai between 1970 and 2011**. The study was undertaken on behalf of the **Mumbai Transformation Support Unit (MTSU)** and focused on understanding the long-term impacts of land reclamation and urban development on Mumbai's traditional fishing communities, commonly known as Koli settlements.

The study was initiated in response to the significant transformation of Mumbai's coastal landscape over several decades due to large-scale land reclamation, infrastructure development, urban expansion, and rehabilitation projects. While these interventions contributed to the city's growth, they also altered the physical, environmental, social, and economic conditions of the indigenous coastal communities that historically depended on fishing and related livelihoods.

Objectives of the Study

The primary objective of the study was to assess the socioeconomic consequences of land reclamation and urban development activities on selected fishing communities in Mumbai. The study sought to:

- Examine the impact of land reclamation on traditional livelihoods, particularly fishing-related occupations.
- Document demographic and socioeconomic characteristics of affected communities.
- Assess changes in housing conditions, infrastructure, and public services.
- Evaluate public health and environmental conditions within the settlements.
- Analyze the implications of urban development on social and cultural practices of fishing communities.
- Identify risks associated with coastal environmental degradation, flooding, erosion, and other natural hazards.

- Develop recommendations for minimizing adverse impacts and promoting sustainable and inclusive development.

Study Area and Community Mapping

As part of the study, MASHAL undertook a comprehensive assessment of selected fishing villages and Koli settlements in Mumbai. The project involved:

- Documentation of the population characteristics of Mumbai's fishing communities.
- Mapping of settlement layouts and spatial characteristics of three selected villages.
- Analysis of settlement growth patterns and changes resulting from land reclamation and urban expansion.
- Assessment of access to infrastructure, public amenities, and community facilities.

Detailed mapping exercises were carried out to understand how physical changes in the coastal environment had influenced settlement structures, mobility patterns, and access to livelihoods.

Methodology

MASHAL adopted a multidisciplinary research approach combining quantitative surveys, spatial mapping, field observations, stakeholder consultations, and socioeconomic assessments.

The study methodology included:

Household Socioeconomic Survey

A structured socioeconomic survey was conducted to collect information on:

- Household composition and demographics
- Occupation and income sources
- Dependence on fishing and allied activities
- Educational status
- Housing conditions
- Access to water supply, sanitation, and health services

- Community perceptions regarding development and environmental change

Settlement Mapping

MASHAL prepared detailed maps of the selected villages to document:

- Existing settlement patterns
- Housing typologies
- Public infrastructure and community assets
- Areas affected by reclamation and development activities
- Environmentally sensitive zones

Public Health Assessment

The study examined public health conditions within the settlements, focusing on:

- Availability and accessibility of healthcare services
- Environmental health risks
- Water quality and sanitation conditions
- Health concerns arising from environmental degradation and pollution

Environmental and Risk Assessment

Special attention was given to understanding the environmental impacts of land reclamation, including:

- Changes in coastal ecosystems
- Loss of natural habitats and mangrove areas
- Alterations in tidal movements and water currents
- Increased vulnerability to flooding and erosion
- Potential risks associated with climate-related disasters

Key Areas of Analysis

The study explored the relationship between urban development and community wellbeing by analyzing:

Social Impacts

- Changes in community structures and social networks.
- Effects on traditional lifestyles and cultural practices.
- Community perceptions regarding development interventions.

Economic Impacts

- Changes in income levels and livelihood opportunities.
- Effects on fishing activities and local economies.
- Shifts in employment patterns due to urbanization.

Environmental Impacts

- Degradation of coastal and marine ecosystems.
- Impact on natural resources critical to fishing livelihoods.
- Increased environmental risks and vulnerabilities.

Public Health Impacts

- Health outcomes associated with environmental changes.
- Access to healthcare and sanitation services.
- Community concerns regarding pollution and living conditions.

Outcomes and Significance

The study provided valuable insights into the complex relationship between land reclamation, urban development, and the wellbeing of coastal communities. It highlighted both the opportunities and challenges arising from Mumbai's transformation and documented the experiences of communities directly affected by these changes.

The findings helped identify measures to reduce adverse impacts on livelihoods, public health, and the environment while supporting more inclusive and sustainable urban development approaches. The study also generated recommendations for protecting vulnerable coastal populations, preserving ecological resources, and strengthening resilience against environmental risks such as flooding, erosion, and climate-related hazards.

Through this assignment, MASHAL contributed important evidence to inform planning, policy formulation, and development strategies aimed at balancing urban growth with the social, economic, and environmental needs of Mumbai's traditional fishing communities.