

INTEGRATED LAND USE PLANNING MANAGEMENT: THE MISSING LINK

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- Is environmental clearance/consent to a project sufficient for protecting environment?**
- Is the project site decided based on any binding spatial/land use plan?**
- Are environmental considerations adequate?**
- How are land use changes around the project regulated?**

THE KEY QUESTIONS !

How are economic goals/targets translated to field?

Environment protection goals/targets?

Social development goals?

How is land apportioned, coordinated for different uses?

How sufficient are technologies/tools/innovation?

How elaborate are processes?

THE KEY QUESTIONS !

- **Land area:** 328.73 million Hectares
2.4% of the world's geographical area
- **Population:** 1.2 billion (2011)
17.5% of world's population; Estimated 1.7 billion in 2051
- **Towns and villages:** 36 states/UTs, 640 Districts, 475 urban agglomerations 7,935 towns, 641,000 villages (2011 census)
(4041 Municipalities, 3894 Census Towns)
- **Agriculture dependency:** Approx. 60% of India's population depend upon agriculture

ME FACTS & FIGURES !

	1950-51	2007-08
Net Sown Area	41.8	46.1
Forest Area	14.2	22.8
Area under non-agricultural uses (industrial complexes, transport network, mining, heritage sites, water bodies, urban and rural settlements)	3.3	8.5
Other area (barren & un-culturable land, other uncultivated land excluding fallow land, fallow lands)	40.7	22.6
TOTAL	100%	100%

Source: Agricultural Statistics at a Glance 2010, Directorate of Economics & Statistics, Department of Agriculture & Cooperation

ME FACTS & FIGURES !

Urban areas: about 2.5 %; Industry: < 1%; mining (0.17%)

Per Capita Availability of Land

- 0.89 Ha (1959)
- 0.27 Ha (2007-08)

Reducing

Agricultural Land

- 0.48 Ha/capita (1951)
- 0.16 Ha/capita (2007-08)

Reducing

Rural pop. Growth

- Rural popln. grown by 1.5 times in 5 decades

Increasing

Urban pop. growth rate

- Urban: 2001 : 285 mio; 2030 : 600 mio
- Urban: rural: 1:5 (1951); 1:3 (2001) to 1:1 (2051)

Increasing

Share of GDP from Manufacturing Industry

- Target increase from 16% to 25%
- Growth rate: 14-16% in mid term

Increasing

THE FACTS & FIGURES !

Trends

**National highways,
railways, gas lines,
communication**

Smart Cities

**Industrial
Corridors**

Yamuna Ganga Yojana

**Ecological
areas/zones**

NIMZs/SEZs

**Rurban Mission
(villages, cities)**

Food Security

**NATIONAL PLANS/ PROGRAMMES
REQUIRE LAND**

How are different
uses planned?

Industry
uses

- Industrial areas
- Housing areas
- Transportation corridors
- Trade & commercial areas
- Water and utilities
- Waste treatment & disposal

Industry zones

- National relevant zones
- Spatial distribution in the State
- Regional context
- Local context in a city or village

LAND USES HAVE INTER-DEPENDENCY

How are different uses planned?

- Competing land use for same piece of land
- Conflicting land uses – issue of coexistence
- Social impacts
- Negative environmental impacts, pollution, health risks
- Disaster risks
- Climate change
- Over exploitation of natural resources

NEGATIVE IMPACTS FROM UNPLANNED DEVELOPMENT!



Protests against land acquisitions

Source: From internet





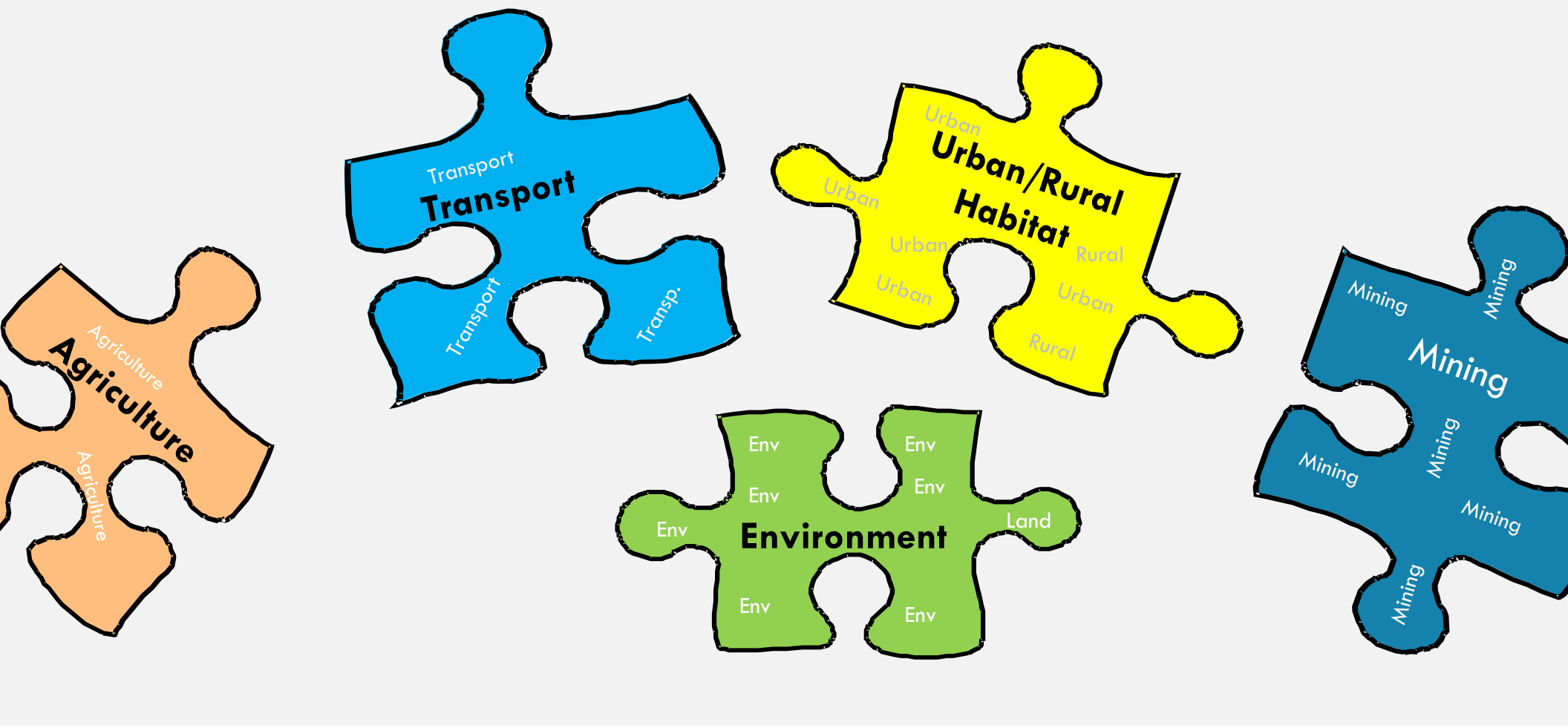
Villagers protest against land acquisition for POSCO's steel plant in Odisha
<http://www.tehelka.com/union-cabinet-clears-land-acquisition-bill/>

Source: Media reports from internet



Pollution of rivers due to wastewaters and wastes

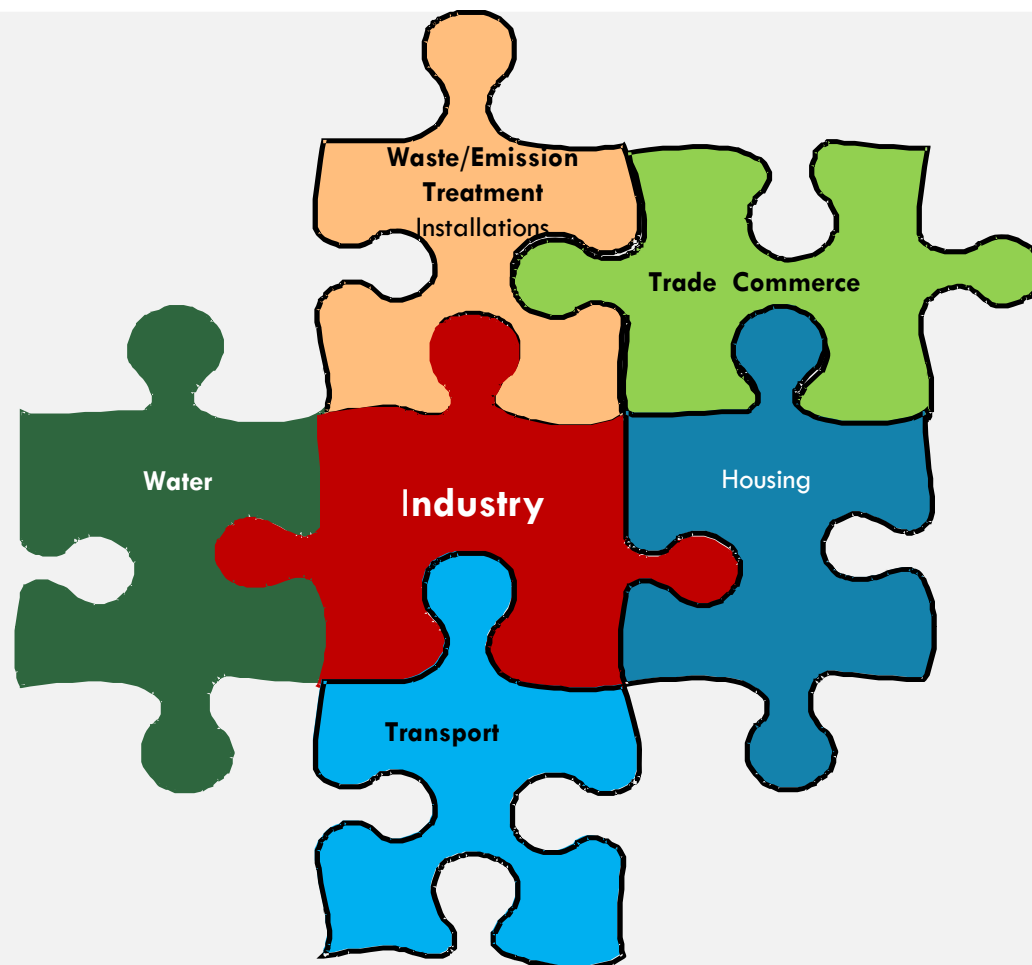




STAINABLE DEVELOPMENT!

Requires integrat
land use planning
management

Land uses are inter-dependent!



STAINABLE DEVELOPMENT!

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1976: National Commission on Agriculture emphasized scientific **land use planning** for achieving food security, self-reliance and enhanced livelihood security.

1992: Sustainable Development strategy of Agenda 21, ratified by more than 170 countries, advocates achieving sustainable development through appropriate **land use planning** and management.

2007: National Policy for Farmers (2007) has recommended revival of existing **Land Use** Boards so that they can provide quality and proactive advice to farmers on land use.

2009: Committee on “State Agrarian Relations and the Unfinished Task in Land Reforms” has emphasized the need for **land use planning** in the country.

2014: Government of India announced that a National Land Use Policy would be brought out.

LAND USE PLANNING

Systematic and iterative procedure carried out...

for sustainable development of land resources,

which meets people's needs and demands.

assesses sustainable use of natural resources and land, and empowers people to make decisions about

allocate those resources.

Definition of "land use planning" by the United Nation's Food and Agriculture Organization and the United Nations Environment Programme published in 1999 reflects consensus among the international organizations]

LAND USE PLANNING MEANING!

Urban area planning

Industrial investment zones planning

Ecologically sensitive area planning

Watershed planning

Watershed management for productivity of agricultural lands

Coastal zone planning

Land administration - National Land Records Modernization Programme

Land Use Boards – set up in 1970's, some still operate in states

Land use policies – only a few states have policies

CURRENT LAND USE PLANNING & UTILISATION TRENDS!

- Is environmental clearance/consent to a project sufficient for protecting environment?**
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MAJOR MISSING LINKS !

How are economic goals/targets translated to field?

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MAJOR MISSING LINKS !

Long-term vision: What is the long term **sustainable development** vision/perspective of national/state/district/local levels?

Where would the envisaged development/conservation plans/programmes at national/state/district/local plans/programmes be realised on ground?

Who is monitoring negative impacts, cross media effects from unplanned development?

Planning systems: Who prepares plans, how and who approves? Institutional structures, Technical procedures, Democratic/participatory processes?

Which Ministry/Department is responsible for land use planning and management?

MAJOR MISSING LINKS!

Land information system? (GIS, land records, land use change monitoring)

Policies: What is the national land use policy/framework that sets uniformity across various States?

Institutional structures: What are the institutional? How to build capacities?

Coordination mechanisms: How to ensure integrated land use planning and management? Sectoral integration, integration between planning levels!!

MAJOR MISSING LINKS!

Industrial Development Zones

Logistics Zones

Environment Protection Zones

Defence and Strategic Zones

Inter-State Rivers and River Valleys

Disaster Risk Zones

Rural/Agriculture Development Zones

Urban Development Zones

Mining and Mineral Bearing Zones

Environment Protection Zones

Tourism/Heritage Development Zones

PRIORITY AREAS FOR PLANNING MANAGEMENT

Development
Protection
Conservation

- Perspective Plans
(20-25 years period)

- Regional Plans
(10 years period)

- Development Plans
(5 years period)

- Local Area Plans
(5 years period)

- Information systems

- Technical aspects – standards, guidelines...

- Planning processes

- Review, monitoring, re-planning

- Capacity development –organisational, institutional

Integrate environmental considerations at planning stages. Developmental activities are allowed only in designated areas/zones.

STEM OF PLANNING

Districts

Regions

Cities

Local area planning

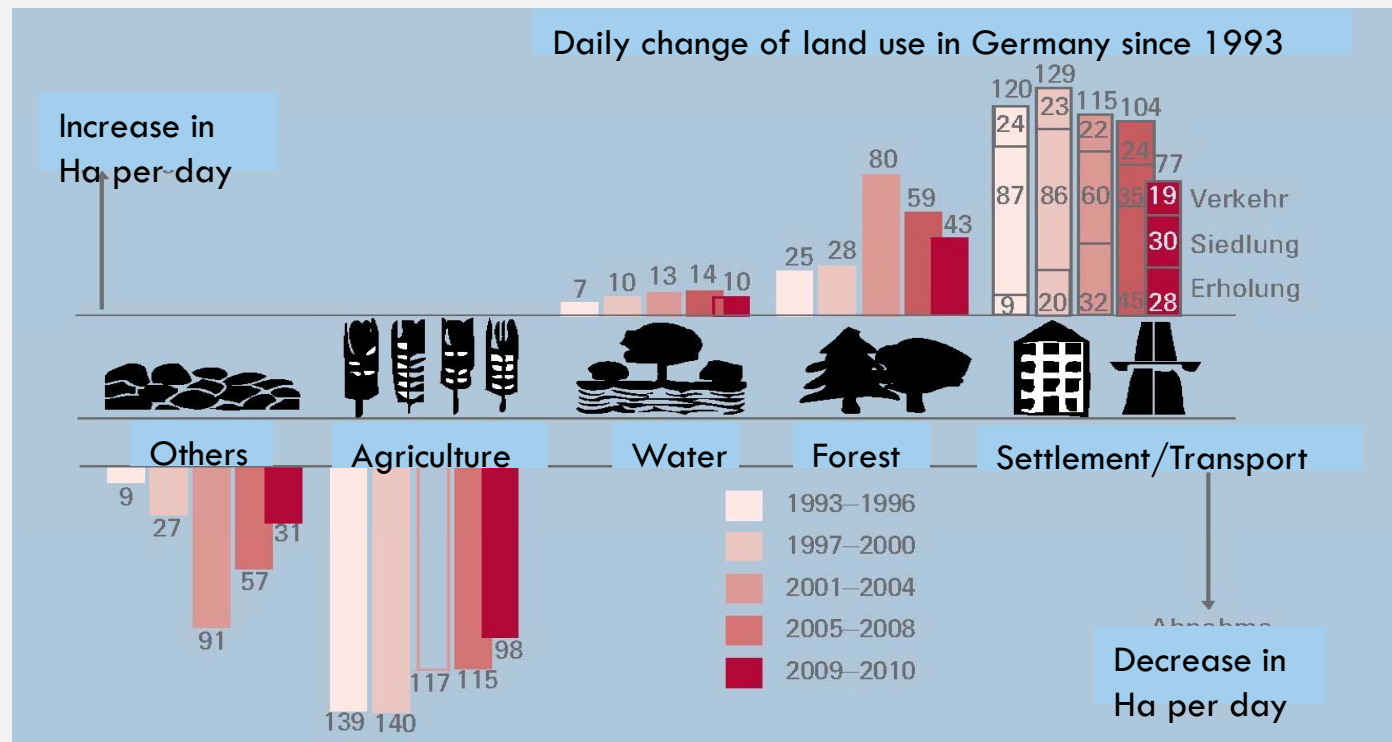
Environmental monitoring

Impact assessment

Land use monitoring

Monitoring & review of
land use plans

Project performance
monitoring



German example of land use changes monitoring

MONITORING SYSTEMS

Address by the President of India, Shri Pranab Mukherjee to Parliament at Central Hall of Parliament, June 09,2014:

“My government will adopt a **National Land Use Policy which will facilitate scientific identification of non-cultivable land and its strategic development.”**

THANK YOU !