Draft Odisha State Land Use (Planning) Policy

April 12, 2019
Foreword by Hon'ble Chief Minister of Odisha
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1 Preamble

Patterns of human use of land effect a wide variety of outcomes - ranging from economic development, urbanisation, social upliftment etc. However, unplanned and unscientific use of land can also lead to climate change, social unrest, disasters like drought or floods, economic disparities and social imbalance between urban and rural communities.

Government of Odisha has economic as well social development of state as its key priority. It is increasingly focussing on developing economic / industrial corridors and improving urban areas for habitation purposes. Such developments are being promoted in partnerships with the community, national and international private sector, bilateral and multilateral agencies, as well as central government various schemes like Smart Cities, AMRUT, HRIDAY, PMAY – urban, major and minor port projects, NIMZ, Logistics Parks, SEZs, IT Parks etc. and other planning socio-enviro-economic planning approaches. At the same time, the state is planning to improve rural economies and rural infrastructure with schemes like integrated watershed management, PMGSY, PMKSY, Rurban and developing other rural and agro-infrastructure on hub and spoke models and network concepts.

Judicious use of land resources has gained foremost significance in all developmental purposes. Experiences with disasters over the past couple of decade along with constraints of growing waste land and challenges of Schedule 5 areas has necessitated enhanced use of spatial land use planning as a tool for guided development as compared to ad-hoc allocation of land for various development projects. It is expected that this would lead to better consideration of socio-enviro-economic aspects leading to better economic returns, social cohesion and environmental balance.

As per the Constitution of India, 7th Schedule, State List entry 18, State governments have full jurisdiction on land related matter including the right of use, transfer, alienation and colonization of land. Hence, the State has the constitutional right and responsibility to prepare a land use policy.

Over the past couple of decades, the State has seen improvements in agricultural productivity and irrigation coverage along with reduction in wasteland. However, urbanisation, mining and industrialisation are increasingly becoming important in the states economics. As priorities of the state are facing increased multi-sectoral challenges, the state intends to set in place a land use planning policy that also looks at issues from spatial planning perspectives.

2 Odisha – An Overview

One of the leading states of India in terms of mining resources, Odisha is located along the eastern coast of India. Odisha shares its border with states of Andhra Pradesh in the south, Chattisgarh in the west, Jharkhand in the north and West Bengal in the northwest. To the east is the Bay of Bengal.

The state is bestowed with a varied geography. Belonging to the post tertiary period, and known as the ‘Rice Bowl of Odisha’, the coastal plains are alluvial deposits of six major rivers from Subamarekha in the north, to Budhabalanga, Baitarani, Brahmani, Mahanadi, and Rushikulya in the south. Delimited by the 75 meter contour line as its western boundary, they
are narrow in the north, widest in the middle (Mahanadi delta), narrowest in the lake Chilika coast and broad in the south.

The area inland (ancient landmass of peninsular India) covering about three-fourth of the entire state, is known as the Middle Mountainous and Highlands Region mostly comprising of hills and mountains of the Eastern Ghats rising steeply in the east and sloping gently to a dissected plateau in the west running from northeast (Mayurbhanj) to southwest (Malkangiri). Appearing like scattered series of steep ridges of elevation varying between 600-1200m, this region is interrupted by a number of river valleys and fertile flood plains. The entire area is extremely rich in mineral resources and is mainly inhabited by tribes.

Subdued central plateaus, revelling all peculiarities of peninsular tablelands, form the western slopes of the Eastern Ghats with elevation varying between 305-610 m. With sheet erosion a common phenomenon and gullying confined to river valleys, Panposh-Keonjhar-Pallahara plateau (upper Baitarani basin) and Nabrangpur-Jeypore plateau (Sabari basin) are the two broad plateaus in Odisha.

Products of continued river action and lower in elevation than plateaus, the rolling uplands (153m-305m), with a bedrock of hard soil rich in nutrients, and a lot of flora and fauna are grouped around Rajgangpur, Jharsuguda, Bhawani Pattna, Bargarh, Balangir-Titlagarh, Patnagarh, Malkanigiri and Rairangapur.

With a coastline of about 480 kilometres, Odisha’s coast is subject to extreme tidal variations. With sea levels known to rise by about 4 meters in certain stretches, inundating up to 3 km of coastal land. The coast is also subject to a strong littoral drift, causing an estimated 1.5 million tons of sand to move from the southwest to the northeast in a year. In addition, frequent cyclones and flooding cause heavy losses to agriculture and fisheries, while dislocating life for a large number of farmers and fishermen.

Administratively, there are 30 districts, 476 sub districts, 5 municipal corporations, 35 municipalities, 66 Notified Area Councils, two industrial town services and 5540 village panchayats, administering 221 towns of which 107 are statutory towns and 114 are census towns, and 51,313 census villages. Furthermore, Odisha has three revenue divisions (Norther Sambalpur, Central - Cuttack and Southern - Berhampur), 58 sub-divisions, 317 Tehsils and 314 administrative blocks.

Ninth largest state of the country, with an area of 155,707 km², Odisha accounts for about 4.74 percent of India’s geographical area. The population of Odisha is 41.97 million (Census of India, 2011) accounting for about 3.47 percent of India’s population. With an estimate of only 16.66 percent of its population living in urban areas, Odisha is regarded as one of the least urbanised states amongst the large states of India.

With a high concentration of Scheduled Tribe and Scheduled Caste population in the state, Odisha is ranked third (numerically) in terms of scheduled tribe population whereas its position is eleventh (numerically) in terms of scheduled cast population in the country. Accounting for 22.85 percent and 17.13 percent respectively, Scheduled Tribes and Scheduled Castes together constitute nearly 40% of the State’s total population (Census of India, 2011).

Odisha is one of the largest minerals bearing states in India, accounting for 16.92% of the total reserves of India. The mineral reserves of Odisha are both vast and diverse, as the state accounts for 98 percent of chromite, 92 percent of nickel, 55 percent of bauxite and 33 percent of iron ore (hematite) resources of the country. Odisha is also rich in other minerals like coal (35% of total reserves of country), dolomite, fire clay, manganese (24% of total reserves of country), graphite, and limestone, apart from having a host of minor minerals. At 32.8 percent
in February 2018, Odisha contributed the largest share of mineral production in India in terms of value. Value of minerals produced in the state reached US$ 2.71 billion in 2018.

Apart from minerals, Odisha is also rich in forests, marine and water resources.

One of the fastest growing state economies in India, between 2011-12 and 2017-18, the estimated gross state domestic product (GSDP) of Odisha expanded at a compound annual growth rate (CAGR) of 10.30 percent to ₹4.16 trillion (US$ 64.54 billion) whereas the estimated net state domestic product (NSDP) expanded at a CAGR of 10.08 percent to ₹3.63 trillion (US$ 56.37 billion).

In 2017-18, the tertiary sector contributed 45.25 percent to the gross state value added (GSVA) at current prices, followed by the primary sector (27.70 percent) and secondary sector (27.05 percent). Driven by growth in trade, transport, storage, communication & services related to broadcasting and other services, the tertiary sector is regarded as the fastest growing (at a CAGR of 12.58 percent), during 2011-12 to 2017-18. Over the same duration the primary sector grew at CAGR of 8.23 percent whereas the secondary sector (manufacturing, construction and electricity, gas & water supply) grew at a CAGR of 6.83 percent.

The state aims to facilitate growth in the manufacturing sector at an estimated yearly increase of 15 percent till 2020, with its contribution to overall GSDP projected to reach 27 percent by 2020. The state intends to invest US$ 28.69 billion in the manufacturing sector generating nearly 300,000 job opportunities by 2020. In line with India’s ambitious & flagship ‘Make in India’ initiative, the State has received investment commitments worth US$ 30.54 billion during the recent ‘Make in Odisha’ conclave. (https://www.ibef.org/states/odisha-presentation)

By 2022, the state envisages to develop industrial parks with quality infrastructure, encourage investments in micro-enterprises as ancillaries, improve connectivity by increasing road and rail density and passenger services, provide universal access to power, education, medical facilities, irrigation etc. along with improved urban infrastructure, establish educational townships foster technical and vocational education and skill development programmes, improve agricultural productivity, conserve and protect its rich natural, cultural and historical heritage.

To provide impetus to its MSME enterprises, the state offers a wide range of generic as well as sector specific fiscal and policy incentives though concerted strategies to address various issues of unemployment and physical well-being to bring about growth with equity.

Institutionally, there are over 24 departments dealing directly or indirectly with land use and its governance related to specific sectors. Some of these departments look after the same sector but different aspects. Further each of these departments have multiple divisions, schemes, autonomous institutes, PSUs and boards etc. with varying degrees of overlapping roles, scope, mandate, functions and activities.

There is a well-established and efficient economic planning and governance framework in the state. The Planning and Convergence Department (P&C) through its Directorate of Economic and Statistics and associated bodies like (Western Odisha Development Council, Poverty and Human Development Monitoring Agency, etc.) effectively anchors this pivotal role.

Furthermore, the Directorate of Town Planning (DTP) under Department of Housing and Urban Development (H&UD) is the nodal agency for all urban planning related activities in the state. Among other things, its major activities include preparation and approval of master plans for planning areas (Regional Improvement Trusts, Special Planning Authorities, Municipalities and other Urban Local Bodies) and technical guidance to Development Authorities and
Government in general under the Orissa Town Planning & Improvement Trust Act, 1956 (Orissa Act 10 of 1957).

2.1 Land Use Status

Various ministries and departments at the National as well as State level maintain information on existing land use statistics for their own planning purposes. However, as the definition of land uses and land cover differ for each department, it is difficult to collate all information as maintained by different departments into a single unified structure. As per the nine fold classification of land use maintained by the Ministry of Agriculture in India (Statistical Year Book of India 2017), Odisha had the following land use classification:

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Area (in thousands) (ha)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total geographical area</td>
<td>15570.70</td>
<td>NA</td>
</tr>
<tr>
<td>Reporting area for land utilisation</td>
<td>15466.62</td>
<td>100.00</td>
</tr>
<tr>
<td>Forests</td>
<td>5813.55</td>
<td>37.59</td>
</tr>
<tr>
<td>Not available for cultivation</td>
<td>2332</td>
<td>15.08</td>
</tr>
<tr>
<td>Permanent pastures and other grazing lands</td>
<td>524</td>
<td>3.39</td>
</tr>
<tr>
<td>Land under misc. tree crops and groves</td>
<td>216</td>
<td>1.40</td>
</tr>
<tr>
<td>Culturable wasteland</td>
<td>575</td>
<td>3.72</td>
</tr>
<tr>
<td>Fallow lands other than current fallows</td>
<td>634</td>
<td>4.10</td>
</tr>
<tr>
<td>Current fallows</td>
<td>877</td>
<td>5.67</td>
</tr>
<tr>
<td>Net area sown</td>
<td>4495.07</td>
<td>29.06</td>
</tr>
</tbody>
</table>

Estimates indicate that barren and waste land account for about 6.8 percent, whereas all built-up, infrastructure, waterbodies, etc. together accounted for about 8.28 percent as part of the area not available for cultivation (15.08 percent).

Land use pattern in Odisha has undergone tremendous transformation over the past few decades due to the impact of urbanization, mining and industrialization. Changes in the land use pattern are associated with ecological changes. In Odisha, the estimated per capita availability of land is only 0.37 ha while the estimated per capita net sown area is only 0.11 ha.

A rough comparison estimate (error possibility of 10 percent) of Land Use Land Cover maps for Odisha on a scale of 1:250,000, as available on Bhuvan portal (National Remote Sensing Centre’s programme) for the years of 2005-06 and 2016-17, indicates that the area classified as built up (including all settlements – urban or rural, mining, industrial, infrastructure including roads, railways, ports canals etc.) increased from about 2.44 percent to 5.28 percent showing a sharp increase of 2.84 percent in absolute terms. During the same period, area under water bodies (post monsoons) reduced by 0.26 percent in absolute terms from 4.13 percent to 3.87 percent.

Furthermore, the total cropped areas increased from 30.39 percent to 36.16 percent (a stupendous increase of 5.77 percent in absolute terms) whereas the net sown area showed an even higher increase of 5.87 percent in absolute terms from 31.05 percent to 36.92 percent over the years of 2005-06 and 2016-17. During the same period the current fallows shows a drastic reduction of 8.98 percent in absolute terms from 13.20 percent to 4.22 percent. Interestingly, the total area under double or triple cropping shows only a marginal increase of 0.10 percent in absolute terms and the area under rabi season showed an increase of 0.30
percent in absolute terms, thereby increasing its share to 0.32 percent, strongly indicating heavy dependence on monsoon and very less utilisation of irrigation facilities.

According to the India State of Forest Report (2017), the total forest and tree cover in Odisha accounts for about 41.87 percent of which 2.56 percent is accounted by trees outside forests of its total geographical area with a net increase of 885 sq. km. in the forest cover of the State attributed to plantations and conservation efforts within Recorded Forest Areas.

The National Wetland Atlas Odisha jointly prepared by Space Application Centre (ISRO), Ahmedabad and Odisha Space Application Centre, Bhubaneshwar (September 2010) estimates that Odisha has about 78440 wetlands. The total wetland area is estimated to be 690904 ha accounting for about 4.47 percent of Odisha’s total geographical area.

It is further estimated that there are 3111 inland natural wetlands and 7871 inland man-made wetlands accounting for approximately 34.57 percent and 31.87 percent of the total area under wetlands respectively. Whereas 560 coastal natural wetlands account for about 20.84 percent and 724 coastal man-made wetlands account for about 3.14 percent of total area under wetlands. In addition to these, it is estimated that there are about 66174 small wetlands (<2.25 ha) accounting for the balance 9.58 percent of the total area under wetlands.

2.2 Urbanisation and Spatial Growth Directions in Odisha

2.2.1 Early Historic Urbanisation

The emergence of Odisha and its urbanisation is regarded as an extension process of the ‘Second Urbanisation’ or the ‘Early Historic Urbanisation’ in the Gangetic plains of India’ i.e. the period from 600 BC to 500 AD (Ghosh 1973; Sharma 1991, Makhan Lal 1984; Ray 1986; Erdosy 1988; Allchin 1989: 1-16; 1990: 163-173; 1995; Chakrabarti 1995; Champakalaxmi 1996).

With the early historic urbanisation accelerating during the Mauryan Period, with decentralised administration based on Kautilya’s principle of policy, cities started flourishing as inland and oversees trades influenced changes in social and economic fabric. This propelled Mahanadi and Brahmani Deltas along with Middle Mahanadi and Tel Valleys into urbanisation. As trade increased the port complexes of Manikapatana, Palur and Radhanagara started gaining prominence.

Further on occupational specialisations including gem exploitation, iron smelting, craft (especially terracotta) and production of artifacts like pottery, beads, metal items, coins etc. led to emergence of fortified urban centres with extensive planning and technology applications in the form of Sisupalgarh in Khurda, Jaguada in Ganjam, Radhanagara in Jajpur, Viratgarh and Kichakgarh in Mayurbhanj, Narla-Aurgarh, Budihgarh and Kharigarh in Kalahandi and Manamunda-Asurgarh in Boudh districts of present day Odisha. (Lal 1949:62-105; IAR 1956-57:30-31; Sahu 1982: 1-8, IAR 1990; Pradhan 1995: 26-28; Mishra 1997; Mishra 2000: 507-549; Tripathy 2002; Mohanty and Mishra 2005: 97-124)

2.2.2 Urbanisation in Medieval Odisha

With the emergence of urban centres like Pithunda, Palura, Khalkattapatana, Konarka, Puri Kataka etc. having predominant functions of administration, pilgrimage or trade, Odisha’s urban centres gained international prominence. With Mughals, the commercial activities and trade shifted from southern ports to northern region as Pipli, Balasore, Harishpur and Hariharpur gained significance. With the advent of European influence and British occupation of Eastern Odisha and rise of Calcutta fleet, commercial and trade centres witnessed decline. (PP Mishra, Urbanisation in Medieval Odisha).
2.2.3 Urbanisation in Pre-Independence and Post-Independence Odisha

Historically, municipalities in Odisha came into being under the Bengal Presidency. After its separation from Bengal in 1912, the towns of Kendrapada, Cuttack, Sambalpur and Balasore emerged as municipalities in the Bihar Orissa Presidency. Carved out of Madhya Pradesh, Bihar and Madras presidency, in 1936, the special state of Orissa, had only 8 municipalities in the form of Berhampur (since 1855), Cuttack (since 1867), Jajpur and Kendrapada (since 1869), Balasore (since 1877), Puri (since 1881), Sambalpur (since 1883) and Paralakhemundi in Gajapati (since 1886) and an urbanisation level of only 3% in the census of 1941. With the merger of princely states in Odisha in 1948-49, the urban local bodies increased to 29.

After independence, and with the adoption of the Odisha Municipality Act (1950) and subsequent acts, amendments and ordinances in 1990, 1991 and 1992 supporting revival of municipal bodies, the growth of towns and urban areas increased in Odisha with the census 2011 recording about 221 towns of which 107 towns are statutory.

2.2.4 Recent Urbanisation and Population Trends

The urbanisation level in Odisha is one of the lowest as compared to rest of the country. With 16.69 percent of urbanisation level accounting for about 17.22 percent of the total built-up area, the overall population density (persons per sq. km.) according to Census 2011 works out to be 270, with Khordha (800 persons per sq. km.) representing the most dense followed by Jagatsinghapur (682 persons per sq. km.) both in 2001 and 2011 Censuses. The lowest density of population is recorded in Kandhamal district (91 persons per sq. km.) for both the censuses.

The state has been witnessing a rise in population since 1951, however, the overall rate of growth stabilised during 1981-1991 and has been declining since then. Despite a rapid growth of population observed in the southern and central districts of Odisha, the concentration of population remains towards northern and coastal districts (Census of India 2011).

The distribution of population across Odisha is not even. Whereas six districts (Ganjam, Sundargarh, Mayurbhanj, Cuttack, Baleshwar and Khorda) account for nearly 40 percent of the state population, the districts of Debagarh, Baudh, Gajapati, Malkangiri, Jharsuguda, Subaranapur, Nuapada Kandhamal, Rayagada and Nayagadh account for 15.7 percent of the state population. The districts of Subaranapur, Balanagar and Malkangiri witnessed highest population growth rates (more than 20 percent) followed by Nabrangpur, Khordha (between 18 percent to 20 percent) during 2001-2011.

The presence of capital city of Bhubaneshwar, ensures that the district of Khordha has the highest urban population with about 1.1 million people living in urban areas, followed by the districts of Ganjam (0.76 million), Sundargarh (0.74 million), Cuttack (0.72 million), Puri, Baleshwar, Kendujhar and Jharsuguda (approximately 0.25 million each). The district of Ganjam has largest rural population of with 2.76 million people living in rural areas followed by Mayurbhanj (2.32 million), Baleshwar (2.06 million), Cuttack (1.89 million), Jajpur (1.69 million), and Kendujhar, Kalahandi, Balangir and Puri (approximately 1.5 million each).

The urbanisation levels are observed highest in the districts of Khorda (48.49 percent), Jharsuguda (39.89 percent), Sundargarh (35.26 percent), Sambalpur (29.59 percent), Cuttack (27.65 percent) and Ganjam (21.62 percent). Rest of the districts show a lower urbanisation level than the state average of 16.66 percent as per Census 2011. In case of Nuapada, Baudh, Debagarh, Kendrapara, the level of urbanization have dropped between 2001 and 2011.
2.2.5 Scheduled Areas

Odisha occupies a unique position among the Indian States and Union Territories for having a rich and colourful tribal scenario. Majority of scheduled tribes live in its hilly and forest regions. Their economy is largely subsistence oriented, non-stratified and non-specialized. Their social systems are simple and aspirations and needs are limited. Though the scheduled tribes in Odisha have suffered from social, educational and economic backwardness due to geo-historical reasons, they have their own distinctiveness and social-cultural milieu.

There are 62 different tribal communities including 13 Particularly Vulnerable Tribal Groups (PVTGs) in the State. In numerical terms Odisha has the third largest concentration of tribal population in the country after Madhya Pradesh and Maharashtra. About 44.70% of the State's geographical area constitutes for Scheduled Area and extends over 118 out of 314 Blocks in 12 districts and a portion of Suruda Tahsil of Ganjam District.

In exercise of powers conferred by sub-paragraph 6 of the Fifth Schedule to the Constitution of India, the revised Presidential Order titled "The Scheduled Areas (states of Bihar, Gujarat, Madhya Pradesh & Odisha) Order 1977" has declared the full districts viz. Mayurbhanj, Sundargarh, Koraput (which now includes the districts of Koraput, Malkangiri, Nabarangapur and Rayagada), Kuchinda tahasil of Sambalpur district, Keonjhar, Telkoi, Champua, Barbil tahasils of Keonjhar district, Khondamal, Balliguda and G.Udayagiri tahasil of Khondamal district, R.Udayagiri tahasil, Gumma and Rayagada block of Parlekhemundi tahasil in Parlakhemundi Sub-division and Suruda tahasil (excluding Gazalbadi and Gochha Gram Panchayats), of Ghumsur sub-division in Ganjam district, Thumul Rampur and Lanjigarh blocks of Kalahandi district and Nilagiri block of Balasore district as Scheduled Areas of the state. After reorganisation of districts in the state in the year 1992-93, seven districts fully and six districts partly are covered under the Scheduled Areas of the state.

The state has adopted the area development based approach in the form of Tribal Sub Scheme Strategy as the Tribal Sub Plan since 1974-75. The Tribal Sub-Scheme area in Odisha consists of 119 Blocks including Tileibani block of Deogarh District which has been declared as TSP block by Govt. of India during 2015. The scheduled tribe population of scheduled area accounts for about 68.09 percent of total tribal population of the State. The remaining schedule tribe population inhabit in Modified Area Development Approach (MADA) Pockets, Cluster Approach Pockets (CAPs) or are dispersed in other areas that are covered under the Dispersed Tribal Development Programme (DTDP).

Other than Sundargarh and Sambalpur, all other districts which are declared as scheduled districts as per the constitutional provision have low levels of urbanization.

2.3 Key Challenges

2.3.1 Socio Economic Challenges

The growth rate of Gross State Domestic Product (GSDP) of Odisha has been oscillating as compared with growth rate of Gross Domestic Product (GDP) of India. The state has showed signs of significant improvement post 2016. Whereas, contribution of agriculture to GSDP has declined over the past decades, the contribution of service sector (trade, tourism allied services, transport and communication, housing, real estate and other social infrastructure, and financial and professional services public administration etc.) has increased from 34.6 percent to about 39.3 percent from 1990-91 to 2016-17. The contribution of secondary sector (including subsectors of industry, manufacturing, mining and quarrying, electricity, gas, water
supply and utility services and construction) during the same period has increased from 39 percent to 53.6 percent.

This is not reflected in change in employment pattern with about 62 percent of total workers still engaged in agricultural activities.

Whereas, there has been a growth of total workers at a rate of 22.9 percent between 2001 and 2011, the share of marginal workers has increased in all districts with the state level share increasing from 32.8 percent to 38.9 percent during the same period indicating low employability in service and industry sectors which holds high share of GSDP.

During the same period, there has been a reduction of approximately 0.14 million cultivators and an increase of 1.74 million agricultural labourer, indicating that increasing number of people have lost their land and being low skilled are not being absorbed in other non-agricultural sector, leading to high out migration to other states.

The most significant rise in marginal workers is in the scheduled districts of Mayurbhanj (15.4 percent), Baleshwar (8.7 percent), Kandhamal (10.5 percent), Kalahandi (11.4 percent), Rayagada (13.8 percent) with lowest levels of urbanisation. In addition to these, the districts of Puri (10.4 percent), Subaranpur (by 29.3 percent), Balangir (by 32.6 percent) also show significant rise in marginal workers.

Though unemployment in Odisha has declined from 5.1 percent in 2012-13 to 3.8 percent in 2015-16, against all India average of 3.7 percent, the incidence of unemployment among females is very high at 6.6 percent as against all India average of 5.8 percent in 2015-16.

It is dichotomous that Odisha being a mineral, soil, and water rich state still fares at 23rd rank among other states and union territories in India with 32.59 percent people below poverty line as of 2011-12 reducing from 57.61 percent (www.rbidocs.rbi.org.in). The Economic Survey of Odisha (2017-18) estimates that the poverty rates have further reduced to 26.9 percent by 2017. It is important to note that the incidence of poverty is much lower in urban areas (17.29 percent people below poverty line) as compared to rural areas (35.69 percent people below poverty line).

Clearly, the issue of guided urbanization with opportunities in industrial and service sector along with initiatives for skill upgradation would play an important role in improving the state’s macro-economic scenario.

### 2.3.2 Challenges in Tribal Development

Even after 60 years of tribal development interventions, there are huge gaps in developmental indices between the tribals and general population both at the national and state levels. As per a UNICEF report, the maternal mortality rate in the SC/ST population in Odisha stands at a high of 67 percent against 55 percent at the national level. A World Bank report reveals anti-poverty programme awareness among tribal in Odisha is significantly lower than in Madhya Pradesh and Karnataka. ST enrolment in primary schools stand at a low of 22 percent in 2007-08. As per FAO report, 35 percent of ST households (farmer) of Odisha are buried in debts. As many as 78 percent of ST households are in food inadequacy category against 50 percent in the general category as of 2009 (Review of Tribal Sub-Plan Approach in Odisha, Government of Odisha).

Despite improvements, the literacy rates among scheduled tribes is only 52.24 percent as against state average of 72.87 percent, with female literacy rates as low as 41.20 percent in
The sex ratio in the tribal sub plan areas is 1041, however, the same has reduced to 985 in child population between 0-6 years age group. (Census of India, 2011)

Majority of ST people (88.59 percent) are marginal farmers. Lack of irrigation facilities and major chunk of unutilized land, and restricted use of non-timber forest produce leads to seasonal migration of tribal labour. About 35 percent of STs have lost their lands for different developments, mines and industrial projects pushing them into joblessness, landlessness, homelessness, and loss of access to common property resources, marginalization, increased morbidity, social disarticulation and lack of employment opportunities.

In view of weak implementation of The PESA Act, 1996 in Scheduled Areas, (empowering the Gram Sabha with powers in resource management and decision making in tribal development process), project authorities show keen interest for construction works rather than implementation and monitoring the Income Generating Scheme (IGS) programmes (Review of Tribal Sub-Plan Approach in Odisha, Government of Odisha). Development interventions extended by the tribal development agencies are mainly on irrigation, agriculture, horticulture, animal husbandry, household industries, small business, formation of Self Help Groups (SHGs), vocational training, provision of fire proof roof, communication, creation of education infrastructure, power supply, drinking water supply and awareness training with an area based approach. Extremist activities spread in inaccessible hilly and dense forest and tribal areas have also resulted in limited progress of implementation of tribal development programmes.

Tribal communities are increasingly becoming monetized, however, ST people in the villages of ITDAs, Micro Projects, MADAs and Cluster Approach Pocket lack knowledge about decentralized market and regulatory market systems. Landlessness and migratory nature of people are limiting the smooth implementation and execution of schemes especially in micro projects necessitating a review of the existing policies, schemes and programmes of tribal development.

2.3.3 Challenges in Agriculture

There has been a decrease in the gross cropped area for production of major crops, especially food grains (from 6.91 million hectare in 2008-09 to 6.21 million hectare in 2017-18). During the same period the gross cropped area under oil seeds and vegetables has reduced from 0.82 million hectares to 0.60 million hectares, and 0.67 million hectares to 0.65 million hectares respectively.

The net sown area decreased by 3.21% in between the 2008-09 and 2012-13 and by 15% between 2013-14 and 2017-18. The coastal districts (Balasore, Bhadrak, Kendrapara, Jagatsinghpur and Ganjam) and districts bordering Andhra Pradesh (Rayagada, Koraput and Malkangiri) have greatest decrease in net sown area.

Productivity levels of crops saw an upward trend between the years 2008-09 and 2013-14, and then a decreasing trend from 2013-14 to 2017-18. Indicating high vulnerability to natural calamities and disasters. The average rice productivity initially increased from 1553kgs/hectare to 2361 kgs/hectare and then reduced to 1739 kgs/hectare during the same period.

The agricultural growth rate of Odisha, has been lower than that of India over the past two decades, due to low crop diversification, high concentration on paddy cultivation, and low proportion of irrigation and other productivity enhancing inputs including mechanization and optimized utilization of fertilizers for agriculture as compared to other states.
Sambalpur has the highest productivity of food grains whereas Kalahandi has the lowest agricultural productivity. The districts of Baleshwar, Cuttack, Puri and Ganjam, Sambalpur and Bolangir are agriculturally more advanced with good irrigation facilities, better access to fertilizer, high literacy rates and infrastructure whereas Mayurbhanj, Kendujhar, Sundergarh, and Koraput are the most backward.

Variations in natural aspects (annual rainfall, location, topography, natural endowments etc.) technological aspects (irrigation spread and cropping intensity, crop diversification, consumption of inputs like fertilizers, high yielding variety seeds, etc.) and social aspects like (average size of operational holdings, adoption of technology, rural literacy, commercialisation of agriculture etc.) has resulted in spatio-temporal variations and disparity in productivity with yield in top most district being 4.11 times and 5.66 times higher than bottom most district for food grains and paddy respectively.

The number of small and marginal farmers increased from 86.16 percent (2005-06) to 91.85 percent (2010-11) whereas the number of semi-medium and medium farmers reduced from 13.54 percent (2005-06) to 8.03 percent (2010-11) of total land holdings accounting for 70.48 percent (increased from 58.36 percent) and 26.8 percent (reducing from 38.03 percent) of total area respectively during the same period.

The state is endowed with an extensive network of rivers and streams and has net dynamic ground water resources of 16.69 billion cubic metre of which exploration to the extent of 5.02 billion cubic metre has been made. The state utilizes 82.6 percent of the ground water draft for irrigation, 15.4 percent for domestic purposes while only 1.9 percent is utilised in industries. However, the net irrigated area has steadily declined from 2.19 million hectare (2008-09) to 1.25 million hectare (2012-13).

While overall situation of ground water in Odisha appears to be safe, certain blocks in all coastal districts (Ganjam, Puri, Jagjitsinghpur, Kendrapara, Bhadrak and Baleshwar) are already partially/ severely affected by salinity. Of these Ganjam, Puri and Baleshwar happen to be high productivity districts with better irrigation facilities.

2.3.4 Mining Challenges

The large mineral deposits of the state are in direct conflict with its other natural resources like forest, marine and water resulting in a direct impact on its rich biodiversity, catchment of major rivers, and habitats of the poor and marginalised tribal population (especially in Kendujhar, Sundargarh, Mayurbhanj, Koraput, Kalahandi, Bolangir and Phulbani districts). Furthermore, many of the districts with major mining deposits are low on urbanisation and high on poverty.

There were only 25405 workers directly employed in major mineral activities in 2016—17 (a reduction from 59417 workers in (2012-13) (Economic Survey of Odisha, 2017-18). Considering, mining has been a major contributor to the state as well as districts economy, its impact on environment and possibilities of social degradation (tangible and non-tangible) need to be adequately addressed.

For example, Kendujhar has about 31,256 hectares of land under mining, dominated by small sized open cast mines (ferrous minerals) wherein individually, most of them conform to prescribed standards, but the cumulative effect has been beyond the carrying capacity of the region leading to environmental deterioration. This has led to loss of forest cover, increase in wasteland by 123% within 15 years, degradation of agriculture and soil quality, and human-wildlife conflicts (especially with elephants resulting in their dwindling population).
Issues of air pollution, water pollution, health of communities, lack of sustainable livelihoods, and economic disparities has resulted in nearly 62 percent of population living below poverty line and the district scores poorly on various human development indicators, especially in the fields of education and health. With majority of the minerals exported outside the State for processing and value addition, it is obvious that the value earned with the mining has not trickled down to the local communities and workers.

2.3.5 Environment

Odisha has two national parks, 18 wild file sanctuaries, covering a total area of 7959.85 sq.km. There are two tiger reserves in Odisha (Satkosia and Similipal) and five elephant reserves (Mayurbhanj, Mahanadi, Sambalpur, Brahmani Baitrani and South Odisha accounting for about 16,302 sq.km.). There are more than 524 species of birds in 8 Important Bird Areas of which 2 are not officially protected, all of them together accounting for approximately 5081.08 sq.km. There are also two Ramsar Sites (Chilika Lake and Bhitarkanika Mangroves) and one Biosphere Reserve (Similipal).

As a state, Odisha also accounts for one of the highest population of wild elephants with a count of 1930 as of 2012 as per MoEF&CC estimate, 1954 in 2015 and 1976 in 2017 based on new counting method - synchronised elephant census (fifth highest of all states with wild elephants). Over the past decade 90 elephants have died of electrocution in Odisha (second highest of all states with wild elephants). There are nine elephant corridors within Odisha that are considered critical due to extensive human habitation leading to human-wildlife conflicts. Since 2013-14, 311 elephants have been killed with annual average elephant deaths estimated at over 70. During the same period, 275 humans lost their lives in elephant depredation, whereas between 2005 – 2014, about 796 people had lost their lives.

Furthermore, most of these protected and eco-sensitive areas are interspersed with settlements. Traditionally wild elephants were known to be present in 16 districts and they have further spread to 10 more districts leaving only Baleshwar, Bhadrak, Debagarh and Nabarangpur. Conflicts with monkeys and wild boars and agricultural settlements are also increasingly becoming a cause of concern.

The state has identified various corridors of growth that require development of sufficient infrastructure and would eventually promote urbanisation and agglomerations around it. With components like expanding highways, industrial use of land, agriculture, water consumption, etc. these development corridors will increase competition and conflicts with available environmental resources like protected and unprotected environmentally sensitive areas including forests, heritage and archaeological monuments, unique tourism destinations, water and grazing lands as they pass through natural settings of the regions.

3 Need for State Land Use (Planning) Policy and its Significance

With the potential of becoming a billion dollar economy over the next couple of decades, immense mineral resources and industrial investment opportunities, growing service sector, the benefits of development in Odisha need to trickle down to its population, across the geographic as well as social expanse of the state. At the same time, addressing challenges of disasters and climate change, sensitivity to environment and bio-diversity needs to be continued.
The economy of Odisha has grown and sustained through agriculture and natural resource based primary activities so far. The state is highly vulnerable to natural disasters like flooding, droughts and cyclones. Apart from this, a major proportion of population are scheduled tribes and schedule castes.

The state is promoting several projects to scale up mining operations from primitive processes to advanced industrial processes up to finished goods. It is evident that the state is in a transition phase, wherein development of mining based auxiliary and other small and medium scale industries are envisaged as the promising sectors for growth. With higher share of manufacturing and service sector in the economy of the state, urbanisation is expected to increase in future.

The state has emphasized on socio-economic development, and is increasingly finding it necessary to address spatial dimensions as part of its plans. Land Use plans can be advantageous for urbanization and industrialization which in turn can increase employment and improve livelihood.

Public policies taking the form of master plans, primarily use spatial and land use plans and zoning and building code regulations as well as environmental regulations to affect land use. These instruments function by restricting usage of land, but cannot influence how individuals and businesses would like to use land.

At the same time other policies and schemes (like, industrial, mining, tourism, education, health, transportation, housing, agriculture etc.) - not directly related to land use planning systems, create incentives to use land in certain specific ways. However, it is not necessary that such policies correspond to best possible use of land for developing the state as a whole.

Furthermore, the New Urban Agenda (2016) recognises the correlation between, land, good urbanization and development along with job creation, livelihood opportunities, and improved quality of life. The NUA specifically emphasises on urban and rural interaction thereby advocating improvements in existing legislations, governance and capacities.

Taking into account the sectoral development scenario, challenges and issues, it is imperative to have a State Land Use (Planning) Policy that provides a strategic and participatory framework for spatial integration of efforts of various sectors, minimise the inter-sector conflicts and ensure judicious use of scarce land to prioritise development, protect natural environment and conserve cultural and societal heritage.

This policy envisages to bridge this gap by bringing on board a multi-sectoral approach and ownership to ensure that the underlying themes / essence of various existing policies and guidelines of different sectors are captured and well represented in the proposed land use planning policy to ensure that synergy is achieved across various sectors.

The policy serves as a spatial governance tool that guides balancing of considerations to all sectors and levels of governance by recognising interdependency of demographic and economic trends and linking national, sub-national/state level fiscal systems, schemes, projects that directly impact efficiency of land use by identifying development priorities, conservation and protection priorities, and areas facing transition and conflicts.

The policy also advocates for a common platform for decision makers to integrate sectoral concerns and tax policy incentives by strengthening regional considerations as part of planning and project conceptualisation.

The policy also addresses the 2030 Agenda for Sustainable Development which contains land-related targets. The policy will impact achievement of 11 out of the 17 Sustainable
Development Goals (SDG) due to its direct relation to 26 targets spread across SDG 1, 2, 6, 8, 9, 10, 11, 12, 13, 15 and 16.

4 Guiding principles

The policy recognises and appropriately incorporates the following as guiding principles:

- **People centric**: People are at the centre of concerns and they are entitled to a healthy and productive life in harmony with nature. Public interest is a fundamental principle.

- **Inclusive**: Everyone, irrespective of his / her social / economic status, gender, religious beliefs or ethnicity, has right to enjoy the fruits of development. Participation of community and other stakeholders in decision-making process of spatial planning ensures inclusiveness and minimises conflicts, enhances acceptability and inculcates ownership of plans and makes the processes transparent.

- **Sustainable**: All developments must be sustainable to meet the economic and social needs as well as address resource constraints and environmental concerns of present as well as the future generations and should aim to minimise displacement of population.

- **Enhance and Support Livelihood**: Economic development and access to livelihood are the basic requirement of human life. Balanced spatial planning should promote a physical and investment environment conducive to economic development and access to livelihood.

- **Integrated Approach to Prioritize and Manage Land Use**: Hierarchical spatial planning system at various levels (state, regional/district, local) complementing socio-economic development initiatives of government, can increase efficiency and effectiveness of governance leading to successful implementation of schemes by addressing constraints of sporadic practice of land use planning in urban areas, certain eco-sensitive zones, and economic or investment zones.

5 Aim and Objective of the State Land Use (Planning) Policy

The policy aims to provide a strategic framework to spatial integration of environmental, economic, social development initiatives in Odisha at all levels of governance, with a view to achieving sustainable growth, equitable access to resources and conflict-free land use management.

The objectives to accomplish the aim include:

- Strengthen existing three tier hierarchical spatial planning framework in terms of
  - State Spatial Strategy
  - Framework for Regional Strategic Planning
  - Framework for Settlement Level Land Use Planning (both urban and rural)

- Prioritisation of areas for
  - Conservation of environment, natural resources and heritage
  - Promotion of Economic Development (primary, secondary and tertiary sectors)
  - Balancing Spatial Equities in Society

- Advocating formulation of a wholistic guided urbanisation strategy
Evolve and strengthen the Institutional, Coordination and Implementation Mechanisms for Land Use Planning and Management with due consideration to strategic interests and projects/developments of national importance, (defence, internal security and others).

6 Hierarchical Spatial Framework

Land is a finite resource. There are competing and often conflicting demands for land for economic and social needs in the development sector. World over, integrated spatial land use planning is known to result in accrued benefits leading to sustainable development that finds the right balance between socio-economic aspects and the environmental considerations. It is imperative that effective hierarchical spatial planning framework be put in place to ensure judicious use of land that promotes economic development and at the same time conserves environment, resources, and heritage and minimises socio-economic conflicts and achieve sustainability.

To cope with the dynamics and pace of development in the state, the existing three tier hierarchical spatial planning framework will be strengthened by preparing strategic spatial plans (at each level of governance) for a plan period of 10 to 20 years with a provision of revision every 5 years.

The three tier hierarchical spatial planning framework will comprise of:

- A 'State Spatial Strategy' in the form of a spatial plan in a scale range of 1:500000 to 1:200000 to formulate the spatial goals and strategies of Odisha along with a State Vision that guides and reflects overall development initiatives in the state with due consideration to environment (forests and protected areas, ecologically sensitive areas, waterbodies, etc.), economy (agriculture, industries, mines, tourism, infrastructure etc.), social development (settlement hierarchy for both urban as well as rural areas, disaster and socially vulnerable) and strategic interests and developments of national importance.

- ‘Framework for Regional Spatial Strategy and Planning’ providing for strategic spatial plans for delineated administrative and/or functional regions and sub-regions. These strategic spatial plans will provide for critical and strategic guidance to spatial linkages and settlement patterns, investment/development priorities and for creating statutory plans that can be enforced at local level. Prepared in a scale range of 1:50000 to 1:100000, such plans will incorporate development proposals of all sectors indicating further refined boundaries for:
  - Development Priority Zones (urban, urbanisable, industrial, mining and quarrying, infrastructure and logistics)
  - Preservation and Conservation Zones for water/ecologically fragile/heritage areas,
  - Transition and Buffer Zones
  - Rural and Agricultural Zones

- ‘Framework for Settlement Level Land Use Plans’ for the development priority zones as well as for other urban and rural settlements will comprise of master plans, improvement schemes, prepared under The Odisha Town Planning and Improvement Trust Act 1956 (Odisha Act 10 of 1957) on a scale 1:10,000 or higher indicating precise boundaries of various land use zones. These plans will conform to strategic spatial plans for regions and sub-regions and shall have statutory status for enforcement at local/plot level.
7 State Spatial Strategy

For addressing the issues of economic disparity or other sectoral conflicts and land use planning challenges as mentioned earlier, the state level spatial strategy will ensure that use of land is in general driven by its most economical and least environmental impact. The spatial strategy will advocate for assigning priority areas for development, no development as well as conservation and augmentation of water. This will improve economic competitiveness along with more equitable income distribution.

The state spatial strategy will address the three pillars of sustainability i.e. environment, economy and society.

7.1 Environment

7.1.1 Forests and Protected Areas

The state will ensure safe management of wildlife corridors through participation of local communities, line department, and civil society organizations and Joint Forest Management through Village Forest Committees (Vana Surakshya Samitis, Palli Sabha and Eco Development Committees) to rehabilitate, restore and re-afforest degraded and open forests (crown density <40%) and protect forests adjacent to settlements (crown density 40% - 60%) from further degradation especially in the districts with extensive mining activities. The state will notify key movement corridors and possibly acquire them for linking protected areas.

The state would particularly focus on the five elephant reserves along with the protected area network to ensure minimum conflicts with human settlements. People will be encouraged to voluntarily shift to urban settlements in vicinity.

The state will evolve well defined guidelines and monitoring system to add buffer to mining and quarrying activities to reduce impact on small animals, birds and nearby agricultural and forest areas.

The state will intensify actions for forest fire control under CAMPA and Centrally Sponsored Plan Scheme i.e. Forest Fire Prevention and Management (Ex-Intensification of Forest Management).

The state will notify and improve/develop mangroves and coastal shelter belt plantations as bio-shield/forests to facilitate implementation of Coastal Zone Management Plan.

The state will increase focus on conservation of marine turtles (Olive Ridley sea turtles) and other marine fauna under integrated coastal zone management in major breeding grounds in Odisha (river mouths of Dhamra, Devi, and Rushikulya as well as Mahanadi, Subamarekha, Budhabalanga, Keluni and Bahuda) and promote river and large waterbodies management plans to conserve gharial, salt water crocodiles and mugger etc.

The state will demarcate sensitive bio-diversity hotspots as complete no-go zones for land transfer for non-forest activities.

The state will promote silvi-pastoral-culture research to promote plantations and improving green cover especially in degraded lands, defunct mines and existing mining districts with a particular focus on Sundargarh, Angul, Koraput, Jharsuguda.
The state will identify and regulate eco-tourism hotspots as a subset of conservation measures using well defined strategies involving local communities with due consideration to carrying capacity.

7.1.2 Conservation and Augmentation of Water Resources

The state will demarcate important water bodies as protected areas and prevent encroachment /blockage of natural drainage pattern by managing river basin catchment area and formulate region specific guidelines for Protected and Unprotected Aquifer Recharge Areas. Polluting activities like mining, polluting industries, use of fertilisers and pesticides etc. would either not be allowed or will be allowed with restriction in such areas.

The state will ensure that industries adhere to the zero liquid discharge and recycling of water for industrial use. The state will also facilitate, implement, manage, monitor and invest in 100% coverage of piped water supply for all settlements/industries and built-up land cover to ensure minimal tapping of ground water for domestic or industrial use by individuals.

7.1.3 Disaster Prone Areas

The state shall focus on disaster resilient developments by strengthening its coastal disaster risk reduction programme, with clear demarcation of no-go zones and major accident hazard vulnerability in the districts of Baleshwar, Bhadrak, Jajpur, Kendrapada, Jagatsinghpur, Cuttack, Khorda, Puri, Ganjam and parts of Gajapati, Dhenkanal, Kendujhar and Mayurbhanj. These districts are not only vulnerable to very high cyclonic impact and flooding, they form part of the rice bowl, and also happen to the districts witnessing rapid development and upcoming investments in secondary and tertiary economy.

The state will also focus on the districts of Malkangiri, Koraput, Kandhamal, Gajapati, Kendujhar and parts of Ganjam to reduce incidences of forest fire and encourage voluntary relocation of vulnerable population to settlements outside forest areas.

Investments and incentives will be focussed to:

- Conserve and create mangrove forests as bio shields against coastal hazards
- Harness flood water and ensure maintenance of natural drainage pattern
- Check unregulated growth of settlements in forest periphery, eco-sensitive areas, aquifer recharge areas and influence area of MAHs.
- Encourage crop diversification and alternative employment in disaster prone districts

7.2 Economy

7.2.1 Agriculture and Livestock

The fertile and highly productive land in coastal districts of Baleshwar, Bhadrak, Jajpur, Kendrapada, Cuttack, Jagatsinghpur, Puri, Khorda, Nayagarh and Ganjam are increasingly becoming urbanised. The now urbanised areas in these districts had seen large investments in irrigation and other investments in agriculture in the past, leading to rapid loss of irrigated areas.

Capping non-agricultural land requirements from food security perspective arrests possibilities of other highly remunerative developments as well as acts as a disincentive for agricultural productivity. Hence, Odisha’s agriculture will be looked at from the perspective of improved irrigation, farm mechanisation, organic farming and postharvest logistics and management,
precision agriculture and cooperative farming techniques to increase the crop productivity and diversification.

The state will focus on crop substitution in highlands (over an area of about 1 million hectares), along with dry-land horticulture, stabilising agricultural productivity and reduce volatility due to disaster proneness and climate change in oil seeds, paddy and pulses, especially in the Middle Mountain and Highland regions (Eastern Ghats) with a particular focus on Mayurbhanj, Kendujhar, Sundergarh, and Koraput. The state will also focus on doubling the area under horticulture and increase farm productivity through soil nutrient management, organic agriculture, farm mechanisation and cooperative farming especially in blocks with scheduled areas in the districts of Mayurbhanj, Kendujhar, Sundergarh, Koraput, Kandhamal and Malkangiri.

The state will prioritise investments in irrigation facilities across all districts and try to bring 35 percent of cultivable area under irrigation coverage in each block with particular impetus to community lift irrigation in scheduled areas and tribal sub plan blocks.

In order to ensure that agricultural investments are efficient, the state will ensure that agriculture and allied departments closely coordinate with other sectoral departments to identify and map land areas/zones most suitable for crop production/diversification based on scientific criteria like agro-climatic zones, natural topography, contour and drainage patterns, sustainable availability of water, soil quality and nutrients, high yielding variety of seeds, bio fertilizer/bio pesticides, mechanisation, modern farm practices and precision agriculture, agro-logistics chain and human resources etc.

The investment in agriculture and allied services will be focussed in areas which are unlikely to become urbanised or built-up in near future. Mapping, planning, promoting and developing agro-logistics facilities including seed production/storage/distribution, processing of bio-fertilizers and pesticides, crop harvesting, processing and storing facilities, high quality warehousing and cold storage facilities will be undertaken on priority.

The state will identify areas under wasteland, canal and tank bunds, degraded forests, along the railway tracks, highways etc. for cultivation of fodder and oilseed plantations.

7.2.1.1 Grazing Lands, Grasslands and Village Commons

The state will formulate Pasture Land and Grazing Policy and assess livestock scenarios in terms of economic, social and nutritional resources in view of changing lifestyle, agricultural practices, silvo-pasture techniques/nutritional requirements and food consumption pattern by 2020.

The State will focus on stabilising livestock population by improving livestock management practices and reducing dependency on forage resources and improving all season availability of fodder by addressing deficit of green and dry fodder.

The State will formulate guidelines for promoting and managing grasslands’ grazing land and pastures in forest fringe areas/eco-sensitive zones, and estimate extent of pasture land available in open forests to explore possibility of fodder production in forest areas.

7.2.1.2 Agro Industries

For the purpose of promoting agriculture, the state will invest in following projects on priority basis

- Centre of Excellence in Agro and Marine products at Angul, Dhenkanal, Ganjam, Kandhamal, and Nabrangpur along with a Fish and Shrimp Laboratory in Bhubaneswar
Agri Export Zones at Angul, Dhenkanal, Ganjam, Kalahandi, Bolangir, Korapu and Baliguda (Kandhamal)

Network of cold storage facilities in Khurda, Cuttack, Bhadrak, Jagatsinghpur, Balasore, Rayagada and Ganjam

7.2.2 Industries

The State considers industrial growth important for sustainable livelihoods, hence to hasten the socioeconomic changes, industrial development is accorded top priority. The state intends to attract investments in varied industrial sectors including mineral-based, agro-processing, auto-components, textile, apparel, and ancillary and downstream industries.

Micro, Small and Medium Enterprises are fundamental to promoting entrepreneurship in an economy and providing employment opportunities at a relatively lower capital cost and play a critical role in industrial development, particularly in rural and backward areas. Hence the state has a particular focus on cluster based approach instead of only large individual units.

The state will prioritise industrial investments along the east coast economic corridor with major segments and nodes at Khordha–Cuttack–Jagatsinghpur (KCJ), Jajpur–Kendrapara–Bhadak (JKB), Sambalpur–Sundargarh–Jharsuguda (SSJ), Mayurbhanj–Keonjhar–Balasore (MKB), Angul–Dhenkanal (AD), and Ganjam.

As part of above following projects and investments will be undertaken on priority basis:

- National Industrial and Manufacturing Zone (NIMZ) at Kalinganagar Industrial Complex
- Port based industrial areas/ NIMZ at Dhamra, Gopalpur and Kirtania
- PCPIR and Smart Industrial Port City with industrial parks for pharmaceutical, plastics, petrochemicals, engineering etc. at Paradeep (Jagatsinghpur and Kendrapada districts)
- Aluminium Park and other industries in Angul
- Downstream Parks for steel based units (MSME clusters) in Jharsuguda, Rourkela, Kalinganagar, Barbil, Paradeep, Denkanal and Sambalpur.
- MSME Clusters (engineering) in Angul, Jharsuguda and Kalinganagar
- Multiproduct SEZ at Gopalpur
- Chemical units based on coal gasification in Angul, Talcher, Paradeep and Jajpur
- Integrated Textile Parks at Ramdaspur/Chowdwar (Cuttack), Bhubaneswar, Balasore, Baragarh, Ganjam, Malkangiri, Koraput, Nabrangpur, Rayagada, Kalahandi, Bolangir, Nuapada, Subampur, and an apparel park at Bhadrak
- A centre of excellence for textiles, Biotech Park, an electronic manufacturing cluster, and an Information Technology Investment Region (Info Valley) in Bhubaneswar
- Electronics System Design and Manufacturing clusters in Rayagada, Balasore and Rourkela
- Agro and food processing parks in Bhadrak, Deras, Bhujabala, Rayagada, Ganjam, Kalahandi, Denkanal, Balasore and Baragarh
- Skill Development Centres, District Level tool rooms and MSME incubation centres in all district headquarters
7.2.3 Mines and Quarries

Odisha is emerging as a key state for mineral and metal based industries, with leadership already established in iron, steel, aluminium and other Ferro alloy productions along with a strong base in coal based power generation. The state will ensure that activities such as mining and quarrying are carried out without any over exploitation and over extraction, with due consideration to environmental and socio-economic parameters.

Specific consideration will be given to trickle down of economic benefits and minimal environment degradation in following mining belts and areas:

- Iron & Manganese belts of Keonjhar – Sundargarh
- Angul – Talcher Coal Fields
- Sambalpur, Jharsuguda & Bargarh area around Hirakud reservoir & Ib Valley
- Jajpur, Dhenkanal & Keonjhar trijunction area
- Bauxite areas in Koraput, Rayagada, Kalahandi
- Limestone & Dolomite belt in Biramitrapur
- Chromite Belt at Baula – Nuasahi (Keonjhar & Balasore district)
- Gandhamardan & adjacent areas of Keonjhar district
- Northern parts of the State in Mayurbhanj district
- Quarrying in Gopalpur coastal area (Ganjam) & Puri district
- Graphite areas of Tumudibandha
- Bolangir – Bargarh areas
- Kalahandi district around Titlagarh
- Boudha, Sonepur & Phulbani area
- Cuttack, adjacent Dhenkanal areas & Khurda District
- Western Odisha, Malkangiri & Nawarangpur, Nuapara district

7.2.4 Tourism

Tourism is one of the main contributors to the State’s economy (approximately 13 percent of GDP of Odisha). The State ranks third in terms of intensity of overnight domestic tourism, with an average of 541 trips per 100 households, as compared to the all-India average 418 trips per 100 households (29 percent higher). (National Council of Applied Economic Research, 2015).

The state will promote tourism in a mission mode for economic development, inclusive growth, employment generation, and social equity, integration, resulting in eradication of poverty by raising income levels of its citizens.

The key themes for promoting tourism in the state will include beach, eco-tourism, heritage, religious, knowledge conventions and business, medical and wellness, caravan-cruise, and adventure tourism.

The state has identified 357 major tourism destinations and categorised them on tourism footfall basis as

- Group A (more than 2.5 lakh tourists/annum) 43 destinations spread across 18 districts
- Group B (between 1 to 2.5 lakh tourists/annum) 80 destinations spread across 26 districts
- Group C (less than 1 lakh tourists/annum) 234 destinations spread across 30 districts

The 357 tourism destinations include the themes of eco-tourism (15), beaches (13), Buddhism (16), cultural heritage and skills (6), 35 destinations of heritage and archaeological importance, 104 leisure and scenic spots, and 147 religious centres.

These destinations can be accessed from 20 major base cities/entry points/district headquarters including the state capital of Bhubaneshwar. The districts of Cuttack, Ganjam, Balasore, Puri, Khurda, Mayurbhanj, Jajpur, Kalahandi, and Keonjhar have the maximum tourist destinations.

Ecotourism spots in select districts, such as Anjar in Keonjhar, Sidhamula in Nayagarh, Ansupa in Cuttack, Mahavinyak & Olasuni in Jajpur, Narsinghnath in Baragarh, Pakidi hill, Saluapali & Lalsing in Ganjam, Manchabandha in Mayurbhanj, Dhaltangarh in Jagatasinghpur and Saptasajya in Dhenkanal will be promoted to attract nature lovers. The state will focus on creating employment opportunities by engaging local communities for maintaining the facilities like nature trails, watch towers, interpretation centres etc.

In addition to above, the state is promoting destinations in the triangle of Puri – Konark – Chilika Lake with investments of about INR 500 crores.

Since a majority of tourist sites fall in forest, coastal areas, and other eco-sensitive areas, spatial planning of such areas will be undertaken on a priority basis in a manner that promotes tourism as well as minimises conflicts with environment and other zones.

7.2.5 Infrastructure

Good infrastructure guides/boost economic development, societal outreach and integration of regions. At the same time it results in conflicts with environment. Furthermore, infrastructure is not a domain of one individual department. Hence, it is important to find a fine balance of sustainability through inter-sectoral coordination.

The state will ensure that all relevant sectoral departments come together and coordinate environment friendly infrastructure development with equitable and affordable access to all.

The state will ensure that all infrastructure projects are completed in timely manner. Particular focus will be laid on:

- **Roads**: Development and widening of state highways and PPP based road projects with priority allotted to the roads as part of East Coast Economic Corridor and segments from Bhubaneshwar to Paradip, Cuttack to Paradip, Bhadrak – Kothari – Aredi, Bisoi to Rairangpur. Particular focus will be given to town bypasses and flyovers for all major towns falling along these corridors.

- **Railways**: Rail-links will be strengthened and frequency of trains will be increased with support from Ministry of Railways, Government of India. Angul – Chhendipada Coal Railway Corridor will be developed on priority basis.

- **Airport**: Capacity of Bhubaneshwar international airport will be augmented along with development of airport at Jharasuguda. 17 existing airstrips spread across 14 districts will also be taken up for development under Regional Connectivity Scheme of Government of India. Helipads in all District Head Quarters will be developed to facilitate disaster mitigation programs as well as VIP visits.

- **Ports**: Development and investments in the ports of Paradip, Gopalpur, Dhamra, Jatadhar, Chudamani, Ashtaranga and Subamarekha will be taken up on fast track basis with
investments from private sector and PPP basis. The ports of Bhichitrapur (Balasore), Bahabalpur, Chandipur, Inchudi, Baitharachandi, Palur, and Bahuda will also be prioritised for development along with fisheries port/jetty development at Balaramgarhi (Bahabalpur), Ashtaranga and Chudamani generating employment for 2000 people each.

- **Logistics**: Multimodal Logistics Parks at Paradip, Angul, Rourkela, Ganjam and Inland Container Depots at Paradip, Rayagada, Kalinganagar and Dhamra will be developed on priority basis. Storage and warehousing network will be strengthened in the districts of Angul, Baleshwar, Boudh, Cuttack, Deogarh, Dhenkanal, Ganjam, Jagatsinghpur, Jajpur, Kendrapada, Keonjhar, Khorda, Nayagarh, Puri, Sambalpur and Sundargarh.

- **Waterways**: A riverine port in Mahanadi will be developed at Mahakalpada.

- **Energy**: Solar Parks will be developed in the districts of Angul, Baleshwar, Boudh, Deogarh, Kalahandi and Keonjhar.

- **Water Supply**: Mega rural water supply projects will be developed on priority basis in the districts of Angul, Bolangir, Baleshwar, Boudh, Cuttack, Jagatsinghpur, Jajpur, Keonjhar, and Puri.

- **Urban Infrastructure**: Investments under the smart cities scheme of Government of India will be undertaken on priority basis for Bhubaneswar and Rourkela. Urban water supply and sewerage systems in Rourkela, Berhampur and Sambalpur will be upgraded on priority basis. Affordable housing will be developed on PPP basis in Bhubaneswar and Rourkela. Services for regional solid waste management for 12 (already identified) clusters will be invested in on priority basis.

7.3 Society

7.3.1 Settlements

All human activities are a function of human settlements. Whatever the land use, the need to have plan and manage nature, arises due to its interaction with human settlements. Human settlement patterns and hierarchies directly correlate with economic and social opportunities, as well resource availability. Priority settlements in a region influence considerations towards essential infrastructure, carrying capacity, envisaged timelines, resource availability and flows, and implication on environmental resources etc.

The total land under built-up area in Odisha has seen an uncontrolled and unprecedented growth of about 115 percent between 2005-06 and 2016-17. With growing levels of urbanisation and demand for land by industrial, commercial and residential activities should be met from marginal and low productive lands.

7.3.1.1 Population

The population of Odisha is expected to start stabilizing during the decade of 2041 - 2051. The state’s population is estimated to be in the range of 44.74 million to 46.61 million (based on low and high variations in growth respectively) by 2041. (Sridharan, 2018). It is estimated that if the current density trends continue, the State will require an additional one percent of its total geographical area only for built-up / settlements.
7.3.1.2 Urban Settlements

The pace of urbanisation in the State has been slow. Urban settlements are sporadic and have predominantly developed around major government investments and interventions in the form of pockets. Corridors of growth are emerging slowly. Considering the shift of economy from agriculture to service and industry sector, urban settlements will play an important role for providing alternate livelihood opportunities. With rural to urban migration set to increase, housing will become integral to strategic development models for ensuring shelter to homeless including temporary migrants, through provisioning of permanent residential EWS and LIG units as well as rental housing.

The state has nine development authorities (DAs) which are closely associated with the relatively highly urbanised districts or regions. These include Bhubaneshwar, Rourkela, Behrampur, Cuttack, Sambalpur, and Puri – Konark, Talcher – Angul, Kalinganagar and Paradip. Furthermore there are seven regional improvement trusts (RITs) including Balasore, Bhanjanagar, Dhenkanal, Jagatsinghpur, Kendrapada, Jeypore and Jharsuguda and 44 special planning areas (SPAs)

Bhubaneshwar and Cuttack form a rapidly developing agglomeration inviting a lot of immigration. The increasing prominence of Puri for Tourism in recent years has given rise to possibility of their triangular agglomeration.

The investments coming up in Paradip have increased the pace of growth of Kendrapada and Jagatsinghpur indicating the emergence of a corridor from Bhubaneshwar – Cuttack – Jagatsinghpur – Paradip – Kendrapada. With an increasing focus on Jharsuguda, and recent declaration of Smart City in Rourkela, the existing developments are picking up pace in Sambalpur and Sundargar.

The state will focus on densifying the existing urban areas as city regions. Priority will be accorded to city regions of:

- Bhubaneshwar – Cuttack – Jagatsinghpur – Paradip – Kendrapada corridor
- Sambalpur – Jharsuguda – Sundargar – Rourkela corridor
- Behrampur – Chattarpur – Ganjam – Hinjilicut and nearby SPAs
- Kalinganagar, Talcher – Angul, Jajpur, Bhadrak and Balasore as future city regions

In addition to above, growth centres in terms of Puri, Dhenkanal, Bargarh, Subarnapur, Balangir, Titilagarh, Bhawanipatna, Nabarangapur and Jeypore will also be developed to attract migration and provide livelihood opportunities.

The state will focus on limiting urban sprawl to conserve natural drainage pattern with strict development control guidelines and building codes. The state will focus on providing 100 percent coverage of piped water supply.

7.3.1.3 Rural Settlements

The state has an objective of improving HDI in rural areas. Rural settlements will be looked at as economically, socially and physically sustainable spaces with improved quality of life of people living there.

Special attention will be given to rural settlements within aforementioned city regions while preparing various settlement level spatial plans in addition to the identified Rurban clusters for priority development viz. Dahita (Bargarh), Khallikote (Ganjam), Kotagarh (Kandhamal), Murtama (Nabarangpur), Sbtala (Bolangir), Khamunda (Sundargarh), Ranipad (Khurda),
Samsingha (Jharsuguda), Tala Basta (Cuttack), Thakumunda (Mayurbhanj), Utkela (Kalahandi), Mirchamal (Koraput), Puttasagi (Rayagada) and Raibania (Baleshwar).

The state has declared the Rurban clusters as special planning areas under the Odisha Town Planning and Improvement Trust Act 1956 (Odisha Act 10 of 1957).

In addition to above the Villages of Tora and Attabira (in Bargarh), Sartha and Parikhi (in Baleshwar), Gajidarda and Bideipur (in Bhadrak), Tomka Forest Block of Kajhar Gram Panchayat (in Jajpur), Jayapatna (in Kalahandi) and Tohara in Kurushi Gram panchayat (in Nabarangapur) will also be prioritised as future Rurban clusters or centres of growth as all these villages have a population in excess of ten thousand people (Census of India 2011).

7.3.1.4 Land Management in Urban Fringes

The peri-urban areas or fringes of aforementioned cities and their agglomerations are fast transforming into haphazard growth, unauthorized colonies, informal settlements, piecemeal commercial and social amenities development and inadequate basic infrastructure and social amenities. Land management instruments are central to urban development, expansion as well as redevelopment of cities. Such instruments should be equitable, effective, and efficient and time bound.

Whereas the state uses land acquisition instruments under RFCT LAR & R Act 2013, in terms of compulsory acquisition and negotiated land acquisition, adoption of land readjustment (land pooling and town planning schemes) and transferrable development rights will be explored to reduce costs of development.

7.3.1.5 Land Banks

The Odisha Industrial Infrastructure Development Corporation (IDCO) has been at the forefront of industrial land allotment, creating investor ready infrastructure, investment promotions and developing major infrastructure facilities across various sectors in Odisha.

As on date, IDCO has set up 106 industrial estates across the State and is in the process of developing new industrial estates across various locations of Odisha. Moreover, IDCO is developing various sector specific industrial parks and industrial regions. To meet the growing demands for industrial set up, in a unique move IDCO is creating a Land Bank of one lakh acres. Till date 64,021 acres of land inclusive of government and acquired private lands have been allotted to the mega projects.

If required land banks will be identified for priority development purposes with due consideration to the relevant provisions of Odisha Scheduled Areas Transfer of Immovable Property (By Scheduled Tribes) Regulation, 1956 (OSATIP) (Amendment of 2012) and The PESA Act, 1996 in Scheduled Areas. Unnecessary pooling of land into land bank will be avoided and all land banks will be directly linked to development priority zones. However, new land banks will not be created from the sole perspective of creating a Development Priority Zones.

Guidelines for go-no-go-areas will be formulated on priority basis and made publicly available before initiating the process for identification and acquisition of additional land banks.

7.3.2 Socially Vulnerable

The socially vulnerable includes the population living below poverty line, socially and economically backward, young children and vulnerable women and old people. The state intends to incentivise and ensure easy access to microfinance for setting up micro-enterprises to strengthen resilient and alternative livelihood patterns.
The districts with scheduled areas will be focussed from the point of view of improving equity in distribution of resources and opportunities. Incidences of poverty are much lower in urban areas (17.29 percent of population below poverty line) as compared to rural areas (35.69 percent of population below poverty line) hence, guided urbanisation will be a strategy for Odisha to tackle poverty.

Tribal Sub Plans will prioritise sectors such as demography (e.g. improvements in sex ratio in children of age 0-6), infrastructure (for education, housing and health), agriculture, horticulture, animal husbandry (veterinary institutions), and irrigation and drinking water facilities. Convergence of resources for ensuring alternative employment and skilling will be priority of the State as part of family oriented employment and income generating schemes.

The state will utilise spatial and land use planning tools and baseline mapping especially in scheduled areas for distribution of social infrastructure (medical colleges & hospitals, dispensaries, health centres, sub-centres, maternities, child welfare centres, stadiums, sport clubs, community halls etc.)

The transfer of tribal lands in scheduled areas of Odisha is governed by the Odisha Scheduled Areas Transfer of Immovable Property (By Scheduled Tribes) Regulation, 1956 (OSATIP) (substantially amended in 2002). The OSATIP contains stringent provisions prohibiting alienation of tribal lands.

With the gram panchayats playing a key role, focus will be on strengthening implementation of The PESA Act, 1996 in Scheduled Areas to facilitate the processes.

The state will increase emphasis on extremely vulnerable households of artisans for the fifteen Geographical Indicator tags of Odisha.

The state will map Village Commons land directly related to vulnerable population to ensure complete control/restriction on transfer and avoid allocation for other sectors including industrial, permanent tourism facilities and/or other social infrastructure related to education, health etc., in general.

7.4 State Spatial Strategy Plan (Map)
(Attached)

8 Framework for Regional Spatial Strategy and Planning

Land use capacities have varied overtime with changing spatial environmental and economic conditions. This has necessitated identification of land use capacity for alternative choice of land allocation among various uses. It is increasingly necessary to delineate the problem areas, which need separate attention. Since supply of land is fixed, use of land for one purpose will be at the expense of other and when huge investments are made on land for one purpose it cannot be reverted back for other uses.

The major factors driving land use changes are growth in human and livestock population, changes in cropping pattern, growth in area and productivity of agricultural crops, demand for land for non-agricultural purposes such as industries, housing, roads and other development infrastructure such as educational institutions, health and other rural and urban amenities. Besides these direct land using factors, the indirect factors such as relative pricing in agriculture and non-agriculture sectors, income, and industrial and agricultural policies also have significant influence on land use changes. The changing structure of agriculture in terms of
crop pattern, land holding pattern, irrigation facilities, and labour availability are some of the factors that will determine land use within agriculture.

The state will prepare regional and sub-regional plans for delineated priorities in line with the State Spatial Strategy to ensure guided development in the state.

Priority will be accorded to preparing spatial strategy for following regions:

- **Urbanisation Corridor 1**
  - Comprising districts of Khorda, Cuttack, Puri, Jagatsinghpur and Kendrapada with a focus on urban agglomerations of Bhubaneshwar (including Khorda, Jatni and Pipli along with agglomeration of Balugaon, Banpur and Rani pad Rurban cluster), Cuttack development authority area (including Tala Basta Rurban Cluster), Puri – Konark, Jagatsinghpur (including areas under SPAs of Birdi, Tirtol and Balikuda), Paradip and Kendrapada (including SPA of Mar saghai, Pattamundai)

- **Urbanisation Corridor 2**
  - Comprising districts of Sambalpur, Jharsuguda and Sundargarh with a focus on urban agglomerations of Sambalpur development authority area (including Kuchinda), Jharsuguda (including Braja nagar, Belpahar, and Samsingha Rurban Cluster), Sundargarh, and Rourkela (including Rajgangpur, Kuanmunda and Balkapur)

- **Ganjam District Region**
  - Comprising of the entire district with a focus on urban agglomerations of Behrampur, Chattarpur, Ganjam, Hinjilicut, Digapahandi, Kukudakhandi, Rambha and Kallikhote Rurban Cluster)

- The regional spatial strategy for the city regions of Kalinganagar, Talcher – Angul, Jajpur, Bhadrak, Balasore and the districts comprising them will be prepared in the second phase

- The regional spatial strategy for the growth centres of Dhenkanal, Bargarh, Subarnapur, Balangir, Titilagarh, Bhawanipatna, Nabarangpur and Jeypore, and the districts comprising them will be prepared in the third phase

The regional and sub-regional plans will be prepared for a period of 15-20 years with a review and revision every 5 years on rolling basis.

### 8.1 Development Priority Zones

Development priorities are a function of settlements. All major secondary and tertiary economic activities happen in and around settlements, whether urban or rural. This in tum reflect the built – up component of the state level land use and land cover. Built-up components of land cover are rarely reclaimed to a natural or agricultural land use.

Interlinkages and hierarchy of human settlements are of utmost importance in development planning. Hence, in all regional plan and sub-regional plans, the hierarchy of settlements (both urban as well as rural) will be clearly identified and highlighted along with likely future built-up patterns.

The existing built-up and likely future developable and priority areas will be earmarked in the form of Development Priority Zones. Among other things, criteria for demarcating Development Priority Zones will give due consideration to the list in Annexure 1 of this policy.

The Development Priority Zones will provide for the upward and downward linkages in terms of master plans and detailed local area plans. If found necessary, as part of the spatial plans for
a region and its sub-regions, among other things the development priority zones may be
detailed further for identifying urban and urbanisable areas, industrial areas, mining and
quarrying areas and infrastructure and logistics areas (inter alia).

8.1.1 Urban and Urbanisable Areas

Urbanisable areas experience and are sometimes synonymous to land use conflicts, change
in land use, shift from agriculture and other primary economy to secondary and tertiary
economy, damage and threat to environment and waterbodies with unregulated
development, as well as migration, socially vulnerable, speculation of land prices, etc.

Hence, it is of first and foremost importance to analyse and prioritise the settlement expansion
areas in terms of ‘Urban and Urbanisable Areas’ that are in sync with settlement hierarchy,
investment priorities, sustainability in terms of economic, environmental and social resources.
Due consideration will be given to inclusion of Rurban Centres and agglomerations of census
towns on the periphery of urban areas.

The Urban and Urbanisable Areas will provide for spatial as well as temporal priorities for
development and guiding investment. Among other things demarcation of Urban and
Urbanisable Areas will specifically take into consideration the migration patterns, formal and
informal housing and settlements, resource and infrastructure availability.

8.1.2 Industrial Areas

The industrial areas will include industrial corridors, Special Investment Regions (SIRs), National
Investment and Manufacturing Zones (NIMZ), Petroleum, Chemical and Petro-chemical
Investment Region (PCPIRs), Information Technology Investment Regions (ITIRs), Special
Economic Zones (SEZs) and all types of industrial clusters, industrial estates and/or industrial
parks. The industrial areas will also be integrated with supporting non-processing infrastructure
like housing, transportation networks, trade and commerce, waste / effluent treatment and
disposal installations. The basic objective will be to promote industrialisation with minimum land
use conflicts.

8.1.3 Mining and Quarrying Areas

Mines and Quarries are contentious land uses. Mineral deposits are naturally located, they can
be extracted only at the locations where they are found. Quarries are synonymous with
settlement patterns. Construction industry requires large amount of natural resources like sand,
gypsum, stones, etc. which are relatively easy to extract. Operational quarrying activities of
construction material tend to be at a smaller scale and not too far from settlements.

As India accepts the United Nations Framework Classification on Fossil Energy, Mineral Reserves
and Resources 2009 to standardise the mining industry practices, all areas with mine deposits,
potential for mining, operational mining, abandoned mining will be spatially and temporally
demarcated as Mining and Quarrying Areas as part of the Regional and Sub-Regional Plans.

The objective of demarcating such areas will be to minimise conflicts with other land uses like
forests and protected areas, water bodies (due to pollution), agriculture (due to impact on soil
health, water pollution and allocation), and people due to positive as well as negative impact
on economic opportunities as well as settlement expansion. The prioritisation of mining and
quarrying sites will be reflected in the Regional and Sub-Regional Plans.
8.1.4 Infrastructure and Logistics Areas

Providing infrastructure is one of the most important factors for guiding development. Broadly classified in terms of physical infrastructure (roads, railways, ports, airports, waterways, transmission lines, power plants etc.) and social infrastructure (education, health, sports, recreation etc.). Social infrastructure is predominantly a function within settlements, and will follow its hierarchy in regional terms.

Representation of Infrastructure and Logistics Areas will focus on those physical infrastructure, which have a greater potential of influencing development and direction of growth of settlements and economy. Among other things, these will include:

- Dedicated freight and passenger transportation corridors (road, rail, etc.)
- Coastal ports (major, minor, private, PPP), jetties and inland waterway ports and terminals
- International and National Airport Complexes
- Multimodal logistics parks, Inland container depots, container freight stations, etc.
- Tank farms/terminals, coal storage and handling terminals
- Cluster of warehouses/granaries/cold storages/truck terminals and wholesale/agricultural markets, etc.
- Transmission corridors/lines for (solids - powder/pellets, liquids or gases) electricity, telecommunication, water, petroleum, chemicals, petrochemical, gases and other products over long distances under gravity or pressure.
- Power generation plants including thermal (coal/gas), nuclear, solar farms, wind farms (on shore-offshore), tidal energy farms, hydropower (micro, mini, large), dams etc.

To facilitate better decision making, governance and spatial budgeting, heat maps representing access to infrastructure and logistics in terms of time, distance, and cost as part of thematic layers in Regional and Sub-Regional Plans will be prepared and supplemented by standard symbols / alpha-numerical codes.

8.2 Preservation and Conservation Zones

The state intends to conserve its dense forest areas, convert exotic plantations to natural forests, increase its protected area network and identify and notify eco-sensitive zones as well as ecologically fragile areas while maintaining the river basin catchment areas.

To meets the targets of Odisha State Spatial Strategy, the regional and sub regional plans will spatially and temporally identify and demarcate sensitive areas as ‘No-go/No Development’ in the form of Preservation and Conservation Zones. Among other things particular emphasis will be given to protected areas, conservation reserves, areas for aquifer recharge and conservation, and areas for heritage conservation and protection (inter alia).

8.2.1 Protected Areas and Conservation Reserves

As part of Preservation and Conservation Zones, the protected area and conservation reserves as notified by the State Government or National Government and other such environmental zones and ecosystem service areas as declared by any law or order of the State or National Government, will be clearly mapped and demarcated. Among other things, these will include:
- Protected Areas including national parks, wildlife sanctuaries, marine national parks and sanctuaries
- Conservation and Community reserves (including tiger reserves and elephant reserves)
- RAMSAR Wetland Sites

These areas will have a complete embargo on new built-up area or developments of any type until/unless they can scientifically prove and decidedly demonstrate positive impact/improvement/benefit to the subject demarcated as ecologically fragile and for preservation and conservation or as allowed under an existing conservation act.

8.2.2 Aquifer Recharge and Conservation Areas

As part of the Protection and Conservation Zones, Aquifer recharge and conservation areas will be identified and provided with a monitoring framework to protect water bodies (especially near built-up environment) and to ensure that drain channels in the catchment areas of irrigation tanks, ponds, and other natural water bodies are not blocked or encroached upon. Such areas will include:

- Waterbodies and wetlands including lakes, ponds, tanks, reservoirs, rivers and their flood plains, creeks, lagoon, etc.
- Critically polluted areas and river stretches that need retrofitting and rejuvenation

8.2.3 Heritage Protection and Conservation Areas

As part of the Protection and Conservation Zones, Heritage protection and conservation areas will be identified and provided with a monitoring framework for all important heritage areas along with a relevant buffer. Such areas will include:

- UNESCO world heritage sites
- Archaeological Survey of India sites and surrounding areas
- Heritage and archaeological monuments, building precincts and surrounding areas and buffers of state significance or regional significance including monuments and surrounding areas declared as state heritage

8.3 Rural and Agricultural Zones

Rural and Agricultural Zones will be clearly identified and demarcated as part of Regional and Sub Regional Plans. They will ideally comprise of predominantly rural areas with agriculture as its major land use and economy. Such areas may still reflect sporadic small towns (Notified Area Councils) and census towns, occasional individual industrial units / rural / cottage industries, local tourist locations, sporadic and small scale quarrying etc.

These areas will be characterized by extensive agricultural land uses (including horticulture, poultry farming, raising of crops/ fruits/ vegetables/ flowers/ grass or trees of any kind, breeding of livestock, including cattle/ horses/ donkeys/ mules/ pigs/ breeding of fish/ keeping of bees, the use of land for grazing cattle and for any purpose which is ancillary to cultivation or other agricultural purpose).

If necessary, among other things, the rural and agriculture zones may identify and/or demarcate Agriculture Priority Areas and Priority Village clusters and Rurban Areas (inter alia).
8.3.1 Agriculture Priority Areas

Priority areas for agriculture and irrigation related investments will be spatially demarcated for food security purposes and captive catchment for major agro industrial investments identified as part of Development Priority Zones etc.

For above purposes, areas with high irrigation potential and sustainable water availability, command areas of existing surface irrigation infrastructure, high soil productivity, contiguity of agriculture/cultivable lands viz. soil classifications of Class I, II, III and IV, potential for sustainable crop diversification and multi-cropping, potential for agricultural practice modernisation, precision agriculture etc. will be demarcated for prioritised investments with due considerations to the agro-climatic zones of Odisha in close consultations with agriculture and allied departments.

8.3.2 Priority Village Clusters and Rurban Areas

Priority village clusters as future Rurban areas of geographically contiguous village panchayats having a combined population of about 25,000 to 50,000 in plains and coastal areas and a population of 5,000 to 15,000 in hilly or tribal areas will be prioritised for improving livelihood opportunities and improving quality of life by providing housing, roads, sanitation, health care, education on cluster format.

8.4 Transition and Buffer Zones

Some lower order settlement agglomerations comprise of census towns, villages as well as Notified Area Councils, and witness growth which tends to be in conflict with natural and rural environment. These areas, overlapping along the boundaries of Development Priority Zones or Preservation and Conservation Zones or Rural and Agriculture Zones, would show mix of their characteristics and may still not be categorised in any one of them.

Furthermore, water conservation, aquifer recharge and small animal and birds are immensely affected by human and economic activities in absence of demarcated buffer outside Preservation and Conservation Zones.

The regional and sub-regional plan will identify and demarcate such settlement agglomeration and ecologically sensitive areas as ‘Transition and Buffer Zones’.

Such zones will utilise programmes like Joint Forest Management (JFM), Biodiversity Boards, Participatory Ground Water Governance, and Participatory Watershed Management etc. for regulating development works in line with strict implementation of the PESA Act, 1996 in Scheduled Areas.

Among other things, the transition and buffer zones may further identify and/or demarcate areas that are ecologically sensitive, important for tourism, or other relevant purposes (inter alia).

In future, if found necessary, such zones may be re-categorised as either Development Priority Zones or Preservation and Conservation Zones or Rural and Agriculture Zones or may continue to be part of Transition and Buffer Zone, as the case may be, as part of regular plan reviews.

8.4.1 Ecologically Sensitive Areas

Ecologically sensitive areas will be clearly demarcated as part of Transition and Buffer Zones in the Regional and Sub-Regional Plans. Such areas will include:

- Eco-Sensitive Zones as notified by the State and National Government
- Important Bird Areas as demarcated by Bombay Natural History Society (BNHS) and International Union for Conservation of Nature (IUCN)
- Coastal Regulation Zones
- Buffer areas to Preservation and Conservation Zones
- Important coastal and marine biodiversity areas including sands, beach, intertidal mudflats, mangroves, coral reefs etc.
- Other water logged areas including floodplains, extremely vulnerable natural hazard prone areas etc.
- Any other environmental zones and ecosystem service areas as may be declared by any law or order of the State Government.

8.4.2 Tourism Areas

Tourist destinations, circuits and their surrounding with increasing footfalls and declared as destinations of tourism significance of international, national or state level by the tourism department, and are not already part of Development Priority Zones or Preservation and Conservation Zones will be clearly marked as part of the Transition and Buffer Zones. These destinations will include (but not limited to) themes of heritage, culture, religious, business and convention, leisure, beach, sports and adventure, nature and wildlife, etc.

9 Framework for Settlement Level Land Use Plans

The Odisha Town Planning and Improvement Trust Act 1956 (Odisha Act 10 of 1957), provides for preparation of master plans and improvement schemes which are statutory plans and can be enforced at local/plot level.

The state will adopt and customise the Urban and Regional Development Plan Formulation and Implementation Guidelines of Government of India for urban areas as well as Rural Area Development Plan Formulation and Implementation Guidelines of Government of India for rural areas in the state with due consideration to guide urbanisation and control haphazard ribbon development along highways.

9.1 Master Plans or Development Plans for Development Priority Zones

All Development Priority Zones will be notified as ‘Plan Areas’ and Master Plans or Development Plans will be prepared for them. In locations, with existing defined plan areas (of local planning authorities) extending beyond identified development priority zones, the entire plan areas will be taken up for preparation of the master plans.

The objective of the Master Plan or Development Plan will be to provide necessary details and intended actions in the form of strategies and physical proposals for various policies as given in the Regional and Sub-Regional Plans.

Proposals of the Master Plans or Development Plans will be supported by an investment and development plan, phasing and implementation strategy along with evaluation and monitoring criteria which will be publicly accessible to ensure transparency in the intention of planning authority regarding physical, social and economic development, the facilities and services that are proposed to be provided in the near future.

These plans will be prepared for a period of 15-20 years with periodic reviews and revisions every 5 years on rolling basis.
9.2 Master Plans or Development Plans for Rurban Areas

All Rurban Areas and other priority village clusters will be notified as ‘Plan Areas’ and Master Plans or Development Plans will be prepared for them. These plans will be prepared for a period of 15-20 years with periodic reviews and revisions every 5 years on rolling basis.

9.3 Local Area Plans and Improvement Schemes

The Local Area Plans or Improvement Schemes will be prepared for all urban and future urbanisable areas, industrial areas, mining and quarrying areas, infrastructure and logistics areas as part of the development priority zones with due consideration to the respective themes on priority basis. These plans will be prepared by respective planning authorities wherever existing or other relevant government departments but eventually approved by planning authorities/regional planning offices of Directorate of Town and Country Planning.

The Local Area Plans or Improvement Schemes for all settlements in the transition zone will be prepared in the second phase.

These plans will be prepared for a period of 10 years with periodic reviews and revisions every 5 years on rolling basis.

9.4 Gram Panchayat Development Plans

As part of the Gram Panchayat Development Plans, Spatial Plans will be prepared for all existing and future rural settlements/built-up areas. The upcoming Rural Area Development Plan Formulation and Implantation Guidelines as advised by the Ministry of Rural Development and Ministry of Panchayati Raj, Government of India will be applicable. These plans will be prepared for a period of 10 years with periodic reviews and revisions every 5 years on rolling basis.

9.5 Master Plans for Preservation and Conservation Zones

Master plans along with a set of elaborate guidelines for regulating and controlling development for Preservation and Conservation Zones will be formulated, implemented, framed and utilised on priority basis in accordance with the relevant environmental acts and provisions thereof. The Forest and Environment department will undertake the activity on priority basis for areas within their jurisdiction. For all other areas Directorate of Town and Country Planning and relevant local planning authorities will undertake the said activity.

These plans will be prepared for a period of 10 years with periodic reviews and revisions every 5 years on rolling basis.

9.6 Master Plans for Transition and Buffer Zones

Elaborate guidelines for regulating and controlling development for such zones will be framed/utilised based on the predominant conflicts in a particular area with considerations indicated in Annexure 2: Indicative Guidelines for Transition and Buffer Zones. Master Plans for Ecologically Sensitive Areas demarcated as part of the transition and buffer zones in the Regional and Sub-Regional Plans will be prepared on priority basis in accordance with the relevant environmental acts and provisions thereof.

These plans will be prepared for a period of 10-15 years with periodic reviews and revisions every 5 years on rolling basis.
10 Institutional Mechanism and Implementation Framework

The State spatial strategy gives impetus to urbanization, industrialization and focussed irrigation investments while balancing the environment and social aspects. To facilitate the same, the State will further strengthen and integrate spatial dimensions in the development process.

Preparation and implementation of spatial plans requires specialized scientific skills addressing each sector and level of governance. The Planning and Convergence Department has been instrumental in multi-sectoral coordination. The state is developing an integrated state spatial data mapping infrastructure known as ‘Odisha Geo Portal’ (Web-GIS based system) through support of National Informatics Centre, Government of India and Electronics and Information Technology Department of the State along with State Remote-sensing and Space Application Centre (ORSAC).

The Directorate of Town Planning (part of Housing and Urban Development Department) has been instrumental in preparation of Master Plans for various locations in the state so far barring a few areas wherein the Development Authorities are preparing their own Master Plans.

The state will further strengthen the three tier hierarchical spatial framework for effective implementation of spatial strategies and efficiency of economic planning. The institutional mechanism for the Hierarchical Planning Framework will be as under:

10.1 State Level Steering Committee

For the purposes of (a) formulating and reviewing State Spatial Strategy Plan, (b) coordinating inter-sectoral interactions and priorities, (c) identifying planning regions in the state, (d) evaluation, approval, monitoring and review of regional plans and (e) management and governance of land uses in the state as detailed in the Guidelines, a State Level Steering Committee (SLSC) will be constituted (Annexure 3).

The Directorate of Town and Country Planning (Department of Housing and Urban Development), ORSAC and Odisha Geo-Portal will support as the technical and advisory arm of the SLSC in future.

10.2 Directorate of Town and Country Planning

The Directorate of Town Planning is currently limited to preparation of spatial plans within notified planning areas only. With an absence of functions and powers ensuring for regional spatial planning, efficiency of the Directorate for ensuring synchronisation between master plans for different locations is affected immensely.

The State will convert the ‘Directorate of Town Planning’ to the ‘Directorate of Town and Country Planning’ (DTCP) and devolve it with the powers and functions to undertake all spatial planning activities in urban as well as rural areas across the state. The DTCP shall continue to be part of Department of Housing and Urban Development. Provisions for necessary financial, technical and human resources will be ensured in all future budgetary allocations.

As part of its new role, the DTCP will be responsible for (a) preparing, implementing and monitoring the Regional and Sub Regional Plans (spatial planning strategy for each of the identified regions) (b) coordinating inter-sectoral interactions and priorities at regional level, (c) identifying Development Priority Zones, Preservation and Conservation Zones, Rural and Agricultural Zones, and Transitions Zones, within the region (d) formulating region specific Development Control Guidelines and Building Regulations (e) evaluating, approving,
monitoring and reviewing the preparation and implementation settlement level plans within its jurisdiction (f) preparing settlement level plans for select areas on case to case basis.

The DTCP will undertake all necessary activities through its Regional Planning Offices. High quality workstations and high speed internet access to Odisha Geo Portal and ORSAC servers will be provided in all DTCP offices for integrating all present and future plans on web-GIS platform.

10.3 Settlement Level Land Use Plans

For each settlement within the development priority zones and/or the existing planning areas, the respective development authorities will be responsible for (a) preparing, implementing and monitoring the master plans or development plans for respective jurisdictions (b) coordinating inter-sectoral interactions and priorities at settlement level, (c) formulating settlement specific Development Control Guidelines and Building Regulations (if necessary) (d) preparing local area plans, improvement schemes and infrastructure and city investment plans within settlements.

For settlements outside the Development Priority Zones or notified Planning Areas, the Master Plans and/or Development Plans and/or Gram Panchayat Development Plans will be prepared either by the regional office of DTCP or New Development Authority or other relevant government department (Industries, Panchayati Raj etc.)

For all areas falling within the jurisdiction of Forest Department, the Forest Management and Conservation plan or other relevant plans will be prepared by the Forest Department.

10.4 Formulation, Implementation and Review of Plans

For a more robust formulation, implementation, and review of plans, involvement of more than one individual agency or department will be ensured as follows:

<table>
<thead>
<tr>
<th>Plan Hierarchy</th>
<th>Nodal Department / Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Formulation</td>
</tr>
<tr>
<td>State Spatial Strategy Plan</td>
<td>DTCP</td>
</tr>
<tr>
<td>Regional and Sub-Regional Plan</td>
<td>DTCP through regional offices</td>
</tr>
<tr>
<td>Master Plan for Development Priority Zones</td>
<td>Development Authorities / DTCP through local offices</td>
</tr>
<tr>
<td>Master Plan for Rurban Areas</td>
<td>Development Authorities / DTCP through local offices</td>
</tr>
<tr>
<td>Gram Panchayat Development Plan</td>
<td>DTCP through local offices</td>
</tr>
<tr>
<td>Master Plan for Preservation and Forest Environment for Forest Areas</td>
<td>F&amp;E / MoEFCC / F&amp;E / JFM / PR / H&amp;UD / ULBs / Gram Panchayats</td>
</tr>
</tbody>
</table>
### Plan Hierarchy

<table>
<thead>
<tr>
<th>Plan Hierarchy</th>
<th>Nodal Department / Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formulation</td>
<td>Approval</td>
</tr>
<tr>
<td>Implementation</td>
<td>Monitoring and Evaluation</td>
</tr>
<tr>
<td>Conservation Areas</td>
<td>DTCP through local offices for non-forest areas</td>
</tr>
<tr>
<td></td>
<td>DTCP through regional offices</td>
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<tr>
<td></td>
<td>PWD and other sectoral departments</td>
</tr>
<tr>
<td>Master Plan for Transition and Buffer Zones</td>
<td>F&amp;E for Forest areas</td>
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<tr>
<td></td>
<td>DTCP through local offices for non-forest areas</td>
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<tr>
<td></td>
<td>F&amp;E / MoEFCC</td>
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<tr>
<td></td>
<td>DTCP through regional offices</td>
</tr>
<tr>
<td></td>
<td>F&amp;E/ JFM/ PR/ H&amp;UD/ ULBs/Gram Panchayats / PWD and other sectoral departments</td>
</tr>
<tr>
<td>Detailed Development Plans within Master Plans</td>
<td>Development Authorities / Sectoral Departments</td>
</tr>
<tr>
<td></td>
<td>DTCP through local offices</td>
</tr>
<tr>
<td></td>
<td>ULBs / Gram Panchayats and other sectoral departments</td>
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<tr>
<td></td>
<td>District Administration / Independent Auditor / Social Audit</td>
</tr>
<tr>
<td></td>
<td>Sectoral Department/ Independent Auditor / Social Audit</td>
</tr>
</tbody>
</table>

### 10.4.1 Monitoring and Evaluation of Plans

All plans will be prepared on Open Geospatial Standard web-friendly GIS platform for easy monitoring of projects. The plans will be integrated with the State Spatial Data Infrastructure (Odisha Geo-Portal) for regular monitoring and evaluation by SLSC or offices of DTCP. Respective sectoral departments will be provided with access to view the plans. Field level verifications will be conducted as and when necessary.

In addition to the concurrent evaluation undertaken by the hierarchical spatial framework, the impact evaluation for plans will be undertaken every 5 years through social audit and/or independent external evaluator/agency.

### 10.4.2 Spatial Budgeting

Spatial budgeting in a GIS platform will enable plan implementation and easier monitoring. Progress will be monitored on quarterly, half yearly and annual basis synchronizing with the fiscal and physical budget over space. The synchronisation of fiscal budget with spatial priorities will be undertaken by following agencies:

<table>
<thead>
<tr>
<th>Levels of Plans</th>
<th>Spatial Priority Areas to be identified by</th>
<th>Synchronisation with the fiscal Budget of</th>
<th>Reporting to be done to</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Spatial Strategy Plan</td>
<td>SLSC</td>
<td>State and Sectoral Departments</td>
<td>SLSC</td>
</tr>
<tr>
<td>Regional and Sub-Regional Plans</td>
<td>DTCP in discussion with sectoral departments and District Authorities/ District Planning Committee</td>
<td>District Administration &amp; State Level Sectoral Departments</td>
<td>Planning and Convergence</td>
</tr>
<tr>
<td>Settlement Level Plans</td>
<td>Development Authorities / Urban and Rural Local Bodies as per the Master Plan, Sectoral departments like forests, industries, agriculture, etc.</td>
<td>Local Administration / District Planning Committee / District Level Sectoral Department Offices</td>
<td>District Collector and District Planning Committee</td>
</tr>
</tbody>
</table>
10.5 Public Participation and Awareness Generation

In addition to the provisions of the Orissa Town Planning & Improvement Trust Act, 1956 (Orissa Act 10 of 1957) and recommendation of URDPFI and RADPFI Guidelines, stakeholder participation and public involvement from starting of planning process, the plans will be uploaded for objections and suggestions giving appropriate time for comments on the website of Directorate of Town and Country Planning as well as respective planning authority in Odia, and English (along with local dialect and script if necessary). Respective portions of all hierarchical plans will be displayed at all government offices including urban and/or rural local body offices so as to spread the message of plans.

11 Human Resources and Capacity Development

State Urban Development Agency (SUDA) and State Institute for Rural Development and Panchayati Raj (SIRD&PR) will jointly evolve a capacity development programme and setup a calendar schedule for regular trainings and capacity development of planners and other involved department officials from various sectors in the state for the purpose of making these plans.

The state will build capacity of existing state universities in developing Urban and Regional Planning Courses to train students to be future planners.

12 Timelines

<table>
<thead>
<tr>
<th>Plan Hierarchy</th>
<th>Timeline</th>
<th>2021</th>
<th>2025</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2. Set up SLSC</td>
<td>7. Standardised GIS data base and convergence</td>
<td>11. First Impact Evaluation</td>
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<tr>
<td></td>
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<td>3. Strengthen DTP to DTCP</td>
<td>8. Regular capacity building</td>
<td>12. Regular capacity building programme</td>
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<td>5. Initiate Spatial Budgeting</td>
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<td>11. growth centres (Bargarh, Dhenkanal, Subamapur, Balangir, Bhawanipatna, Titilagarh, Nabarangpur and Jeypore, and the districts comprising them)</td>
<td>12. Regular Review of Regional and Sub Regional Plans</td>
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<td></td>
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<td>13. First Impact Evaluation</td>
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<td></td>
<td>14. Regular capacity building programme</td>
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<td>15. Rolling Spatial Budgeting</td>
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<td></td>
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<td>14. Approve Master Plan for all Preservation and Conservation Zones</td>
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<tr>
<td>Region and Sub Regions</td>
<td>6. City regions (Talcher - Angul Kalinganagar, , Jajpur, Bhadrak, Balasore) and the districts comprising them</td>
<td>7. First Review of Regional and Sub Regional Plans</td>
<td></td>
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<td></td>
<td>4. Initiate Spatial Budgeting</td>
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<td></td>
<td>5. Initiate capacity building</td>
<td></td>
<td></td>
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<tr>
<td>Settlement / Local Level</td>
<td>7. Master Plans for DPZs in city region districts</td>
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<tr>
<td></td>
<td>1. Master Plans for DPZs in Urbanisation Corridor 1 and 2 and Ganjam Districts Region</td>
<td>8. Master Plans for all Preservation and Conservation Zones</td>
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<td></td>
</tr>
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<td></td>
<td>15. Master Plans for DPZs in growth centre districts</td>
<td>9. Rolling Spatial Budgeting</td>
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<tr>
<td></td>
<td>16. Master Plans for Rural Settlements</td>
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<tr>
<td></td>
<td>17. Regular Review of Master Plans</td>
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<tr>
<td>Plan Hierarchy</td>
<td>Timeline</td>
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<tr>
<td></td>
<td>2021</td>
<td>2025</td>
<td>2030</td>
<td></td>
</tr>
<tr>
<td>5. Initiate Spatial Budgeting</td>
<td>12. Standardised GIS data base and convergence</td>
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<td></td>
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</tr>
<tr>
<td>6. Initiate capacity building</td>
<td>13. Rolling Spatial Budgeting</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>14. Regular capacity building programme</td>
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</tbody>
</table>
Annexure 1: Criteria for Demarcation of Development Priority Zones

The criteria for demarcation of Development Priority Zones shall give due consideration to:

- Settlement pattern and hierarchy including housing, education and medical facilities
- Flow of goods, people, and information with linkages to raw material, finished products and markets
- Transportation and communication networks along with other infrastructure links
- Topography, geology, natural drainage and watersheds
- Water availability and waste management (solid, liquid and hazardous)
- Avoid forests, protected areas, wetlands, grasslands, green cover, buffer areas and other environmentally sensitive areas
- Avoid heritage and conservation zones
- Positive externalities for geographical indicators and other social vulnerabilities
- Planned investments, priorities and existing land banks
- Hazard vulnerability and disaster prone zones etc.

Criteria for identifying land banks

The land bank identification process shall fulfil the predefined criteria for demarcation of Development Priority Zones. In addition to above, the criteria for identifying land banks shall

- Preferably avoid cultivable land and grazing lands
- Shall protect the interest of vulnerable sections of the society
- Avoid village commons
- All areas such as the eco sensitive zones, prime agriculture lands, areas susceptible to natural hazard, forest lands etc. shall be avoided for land banks.
Annexure 2: Indicative Guidelines for Transition and Buffer Zones

Among other things, depending on the predominant function and conflicts, the Transition and Buffer Zones shall:

- Control/ regulate/ guide infrastructure and housing projects to be ecologically sensitive especially in forest fringe areas and complement them with compatible land uses like agriculture, pasture lands, horticulture lands, water harvesting zones etc.

- Integrate Geographical Indicators as a must in spatial planning exercises and control or completely restrict transfer of village commons directly linked to vulnerable population especially those who do not have land and may be sourcing firewood, cattle grazing, and medicinal grass, etc. especially in case of Geographical Indicators

- Provide clear cut guidelines for allowing and not-allowing conversion of grazing lands and village commons for built-up purposes, forest purposes and other agricultural uses

- Identify critical zones where bore wells are prohibited in buffers of Aquifer Recharge Areas

- Map hazards and disaster vulnerable areas to ensure resilience measures are incorporated in detailed planning at the next level

- Provide for a well-defined system/guidelines to add buffer to activities like mining, quarrying etc. and their end of life uses

- Encourage rehabilitation, restoration and re-afforestation of degraded and open forests as well as protect forests adjacent to settlements from further degradation

- Regulate grazing with community participation in forest areas, and protect protected areas, young plantations and regeneration areas from grazing

- Encourage urban forestry, social forestry, tree parks, plantations along roads, perineal horticulture crops for both green cover and commercial utilities in association with ULBs and NGOs to reduce pollution and ameliorate environment

- Protect private forests from clandestine diversion to non-forest purposes and restrict, control, discourage diversion and commercial exploitation on forest lands

- Discourage new infrastructure in wildlife areas especially elephant corridors and ecologically sensitive areas

- Encourage environmentally and wildlife friendly agricultural practices in eco-sensitive areas

Do’s and Don’ts for Transition and Buffer Zones

<table>
<thead>
<tr>
<th>Do’s</th>
<th>Don’ts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conserve natural water bodies</td>
<td>Pollute environment</td>
</tr>
<tr>
<td>Protect biodiversity of the area</td>
<td>Establish polluting Industries</td>
</tr>
<tr>
<td>Protect hill slopes</td>
<td>Establish major hydro-electric projects</td>
</tr>
<tr>
<td>Adopt green technology</td>
<td>Discharge untreated effluents</td>
</tr>
<tr>
<td>Use renewable energy and fuels</td>
<td>Cut trees for fuel</td>
</tr>
<tr>
<td>Use eco-friendly transport</td>
<td>Extract ground water for commercial use</td>
</tr>
<tr>
<td>Promote eco-tourism</td>
<td></td>
</tr>
<tr>
<td>Plant and process Ayurveda herbs</td>
<td></td>
</tr>
</tbody>
</table>
Prohibited Activities (the State may enlist more activities)

- Commercial Mining
- Setting of industries causing pollution (Water, Air, Soil, Noise, etc.)
- Establishment of major hydroelectric project
- Use or production or processing of any hazardous substances
- Discharge of untreated effluents in natural water bodies or land area
- Setting of new saw mills
- Setting up of brick kilns

Permissible but Regulated Activities (Indicative only)

- Commercial establishment of hotels and resorts
- Construction activities
- Small scale non-polluting industries
- Felling of Trees
- Collection of Forest Produce or Non-Timber Forest Produce (NTFP)
- Erection of electrical and communication towers and laying of cables and other infrastructures
- Infrastructure including civic amenities
- Widening and strengthening of existing roads and construction of new roads
- Under taking other activities related to tourism like over flying the ESZ area by hot air balloon, helicopter, drones, Microliter etc.
- Protection of hill slopes and river banks
- Movement of vehicular traffic at night
- Ongoing agriculture and horticulture practices by local communities along with dairies, dairy farming, aquaculture and fisheries
- Discharge of treated waste water/effluents in natural water bodies or land area
- Commercial extraction of surface and ground water
- Open Well, Bore Well etc. for agriculture or other usage
- Solid Waste Management
- Introduction of Exotic species
- Eco-tourism
- Use of polythene bags
- Commercial Sign boards and hoardings
Promoted Activities

- Rain water harvesting
- Organic farming
- Adoption of green technology for all activities
- Cottage industries including village artisans, etc.
- Use of renewable energy and fuels
- Agro-Forestry
- Use of eco-friendly transport
- Skill Development
- Restoration of Degraded Land/Forests/Habitat
- Environmental Awareness
Annexure 3: State Level Steering Committee

Constitution of State Level Steering Committee to facilitate, evaluate, monitor and steer implementation of State Spatial Strategy

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Designation</th>
<th>Department</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Chief Secretary</td>
<td>Government of Odisha</td>
<td>Chairperson</td>
</tr>
<tr>
<td>2</td>
<td>Secretary</td>
<td>Planning and Convergence Department</td>
<td>Co-Chair</td>
</tr>
<tr>
<td>3</td>
<td>Secretary</td>
<td>Housing and Urban Development Department</td>
<td>Member Secretary</td>
</tr>
<tr>
<td>4</td>
<td>Secretary</td>
<td>Revenue and Disaster Management Department</td>
<td>Member</td>
</tr>
<tr>
<td>5</td>
<td>Secretary</td>
<td>Panchayati Raj Department</td>
<td>Member</td>
</tr>
<tr>
<td>6</td>
<td>Secretary</td>
<td>Industries Department</td>
<td>Member</td>
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<tr>
<td>7</td>
<td>Secretary</td>
<td>Steels and Mines Department</td>
<td>Member</td>
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<tr>
<td>8</td>
<td>Secretary</td>
<td>Forest and Environment Department</td>
<td>Member</td>
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<tr>
<td>9</td>
<td>Secretary</td>
<td>Agriculture Department</td>
<td>Member</td>
</tr>
<tr>
<td>10</td>
<td>Secretary</td>
<td>Tourism Department</td>
<td>Member</td>
</tr>
<tr>
<td>11</td>
<td>Secretary</td>
<td>Water Resources Department</td>
<td>Member</td>
</tr>
<tr>
<td>12</td>
<td>Secretary</td>
<td>Information Technology Department</td>
<td>Member</td>
</tr>
<tr>
<td>13</td>
<td>Secretary</td>
<td>Finance Department</td>
<td>Member</td>
</tr>
<tr>
<td>14</td>
<td>Secretary</td>
<td>ST&amp;SC, BC&amp;M Welfare Department</td>
<td>Member</td>
</tr>
<tr>
<td>15</td>
<td>Director</td>
<td>Directorate of Town and Country Planning</td>
<td>Member Convener</td>
</tr>
</tbody>
</table>

Depending on the requirement, senior level representatives from other departments of Government of Odisha may be invited in the meetings of Steering Committee on case to case basis. An indicative list of such special invitee departments for meetings of the Steering Committee is mentioned below:

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Departments (Indicative, not limited to)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Department of Fisheries, Animal Resources Development</td>
</tr>
<tr>
<td>2</td>
<td>Department of Commerce and Transport</td>
</tr>
<tr>
<td>3</td>
<td>ORSAC, Department of Science and Technology</td>
</tr>
<tr>
<td>4</td>
<td>Department of Micro, Small and Medium Enterprises</td>
</tr>
<tr>
<td>5</td>
<td>Department of Skill Development and Technical Education</td>
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<tr>
<td>6</td>
<td>Directorate of Civil Aviation</td>
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<tr>
<td>7</td>
<td>Department of Energy</td>
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<tr>
<td>8</td>
<td>Department of Health and Family Welfare</td>
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<tr>
<td>9</td>
<td>Department of Education</td>
</tr>
<tr>
<td>10</td>
<td>Works Department</td>
</tr>
<tr>
<td>11</td>
<td>Department of Handlooms, Textiles and Handicrafts</td>
</tr>
</tbody>
</table>