

DRAFT

National Land Utilisation Policy

framework for land use planning & management



सत्यमेव जयते

Government of India

Department of Land Resources
(Ministry of Rural Development; Government of India)

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1. Preamble

Land, a valuable and finite resource

Land includes benefits to arise out of land, and things attached to the earth or permanently fastened to anything attached to the earth. Land is the most important component of the life support system. It is the most important natural resource which embodies soil and water, and associated flora and fauna involving the ecosystem on which all man's activities are based.

Land is a finite resource. Land availability is only about 20% of the earth's surface. Land is crucial for all developmental activities, for natural resources, ecosystem services and for agriculture. Growing population, growing needs and demands for economic development, clean water, food and other products from natural resources, as well as degradation of land and negative environmental impacts are posing increasing pressures to the land resources in many countries of the world.

India, despite being the seventh largest country in the world, land resource management is becoming very important. India has over 17% of world's population living on 2.4% of the world's geographical area.

Development is inevitable, it demands land

India envisions that infrastructure across the country must expand rapidly. Industrialisation, especially in the manufacturing sector, is inevitable and will accelerate. Urbanisation is on drastic rise. Agricultural lands are becoming important as livelihood of a significant amount of the country's population is dependent on it. For all these, land is an essential requirement. In addition, the Government also requires land from time to time for a variety of public purposes.

The developmental targets of India on one hand and the social, cultural and environmental aspects on the other hand demand land. These demands for land could be competing by different sectors for the same land or even leading to conflicting land uses once put to a use by a sector. In the recent years, there has been tremendously increasing pressure on land in India posing challenges for sustainable development.

Use of land must be judicious

There is a need for optimal utilisation of land resources. The country can no longer afford to neglect land, the most important natural resource, so as to ensure sustainability and avoid adverse land use conflicts. There is a need to cater land for industrialisation and for urbanisation. There is a need to cater land for development of essential infrastructure facilities. While at the same time, there is a need to protect lands under environmental sensitive zones and ecosystem services. There is also a need to protect lands for agriculture to cater to the needs of the farmers and food security of the country. Further, there is a need for preservation of the country's natural, cultural and historic heritage areas. In every case, there is a need for optimal utilisation of land resources.

Provisions in the Indian Constitution

According to the Entry No. 18 of the Seventh Schedule (the State List) of the Constitution of India, land including assessment and collection of revenue, maintenance of land records, land management and alienation of revenue etc. fall under the purview of the State Governments. "Land" being a State subject, falls under the legislative and administrative competence of the States. Land use planning falls, therefore, under the responsibility of the State Governments.

As per Article 39 of the Constitution: (1) the ownership and control of the material resources of the country should be so distributed as best to serve the common good; and (2) the operation of the economic system should not result in a concentration of wealth or a means to production to the common detriment.

As per Article 243ZD(1) of the Constitution, “There shall be constituted in every State at the district level a District Planning Committee to consolidate the plans prepared by the Panchayats and the Municipalities in the district and to prepare a draft development plan for the district as a whole”.

While the Constitution provides for spatial planning, the National level activities currently are focused to evolving policies, guidelines and model laws for adoption by the States, disbursing and monitoring assistance/grants/funding, and formulating development plans and policies for Union Territories.

In the area of land utilisation, there is no single approach currently being followed across the country. Various sectors at central level such as urban, rural, industrial, transport, mining, agriculture etc. follow their own approaches. For example, in the case of rural sector, since nearly 50% of India’s population is dependent on agriculture, the sector lays focus on reforms on land acquisition and resettlement & rehabilitation, watershed management and modernisation of land records, and there is not yet an approach in place for planning and management of land resources in rural areas.

*Land use
planning and
management – a
solution for
sustainable
development*

Proper planning of land and its resources allows for rational and sustainable use of land catering to various needs, including social, economic, developmental and environmental needs. Proper land use planning based on sound scientific, and technical procedures, and land utilisation strategies, supported by participatory approaches empowers people to make decisions on how to appropriately allocate and utilize land and its resources comprehensively and consistently catering to the present and future demands.

There is a need for scientific, aesthetic and orderly disposition of land resources, facilities and services with a view to securing the physical, economic and social efficiency, health and well-being of communities. There is a need for an integrated land use planning which inter-alia includes agriculture, industry, commerce, forests, mining, housing infrastructure and urban area settlements, transportation infrastructure etc. to settle claims/counter-claims of these sectors.

The National Commission on Agriculture (1976) emphasized on scientific land use planning for achieving food security, self reliance and enhanced livelihood security. The National Policy for Farmers (2007) has recommended revival of existing Land Use Boards and their linkage to district-level land-use Committees, so that they can provide quality and proactive advice to farmers on land use. The Committee on “State Agrarian Relations and the Unfinished Task in Land Reforms” (2009) has also emphasized the need for land use planning in the country.

The Sustainable Development strategy of Agenda 21, a non-binding and

voluntarily implemented action plan of the United Nations (UN) that was ratified by more than 170 countries at the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro, Brazil, in 1992, advocates achievement of sustainable development through appropriate land use planning and management.

Definition

Definition of “land use planning” by the United Nation’s Food and Agriculture Organization and the United Nations Environment Programme published in 1999 reflects consensus among the international organizations. Land use planning is understood as a systematic and iterative procedure carried out in order to create an enabling environment for sustainable development of land resources which meets people’s needs and demands. It assesses the physical, socio-economic, institutional and legal potentials and constraints with respect to optimal and sustainable use of natural resources and land, and empowers people to make decisions about how to allocate those resources.

Another definition of “land use planning” is the process of evaluating land and alternative patterns of land use and other physical, social and economic conditions for the purposes of selecting and adopting those kinds of land use and course of action best suited to achieve specified objectives. Land use planning may be at national, regional, state, district, watershed, city, village or other local levels.

Lack of overall approach to land use planning and utilisation in the country

There is lack of comprehensive and integrated land use planning in the country, which enables rationale and optimal land utilisation. The current land use planning in the country is inadequate. There is a need for a systematic and scientifically based land use planning

The Constitution (Seventy-fourth Amendment) Act, 1992 provides for District Planning and Metropolitan Area Planning that consolidates plans of both panchayats and municipalities having regard to spatial (land use) planning. The District Plans prepared currently, in general, do not cover spatial (land), environmental as well as urban concerns.

Since, District level spatial land use plans do not generally exist, the regional development triggered by urbanisation or industrialisation, or the regional development that needs to be regulated due the presence of large eco sensitive zone calls for initiating land use planning of such (urban or industrial or eco sensitive) areas so as to ensure sustainable development.

If no immediate actions are taken, the unplanned and haphazard development has potential to cause adverse impacts, including land use conflicts with neighbouring land uses, particularly with agricultural areas, rural uses, natural resource areas and environmentally sensitive and fragile ecosystem, as well as of losses of productive land and ecosystem services.

Competing and conflicting land uses

Competing and conflicting land uses are a major concern. “Competing land uses” are those that compete for the same parcel of land for their location. Such land uses competing in rural areas with agriculture could be, for example, cash crops or food crops; industrial or agro-industrial

uses; Special Economic Zones (SEZs) or Special Investment Regions; highways; peri-urban development or outgrowth, integrated townships or theme cities, and mega projects (e.g. industrial corridors/power plants/ports).

“Conflicting land uses” are those that are in conflict with the existing land use. Certain land uses cause impacts on other land uses nearby. Such conflicting land uses include, for example, agriculture in forest areas, mining in forest areas, highways in eco-sensitive areas, polluting industries in rural or eco-sensitive areas, urban/industrial development on agriculture lands, agriculture encroaching into forest lands, and urban waste disposal in peri-urban areas. The basic concern is the negative impact that such land uses cause on other land uses. For example, an industrial area can cause impacts on the neighbouring areas due to air pollution, or an urban expansion can lead to destruction of the ecosystem service of natural drainage thereby impacting the existing lakes and water bodies. Indiscriminate land use changes in eco-sensitive zones could directly affect wildlife habitat and thereby impact local and global biodiversity.

Both, competing and conflicting land uses frequently are also the reason for social conflicts between the local population and the authorities and prospective investors.

Impacts from improper land use are to be dealt with

Between 1950/51 and 2007/08, land utilisation in India underwent significant changes. While the lands under net sown area, forests and non-agricultural uses¹ have increased, the lands under “other areas”² uses have almost halved from 40.7% to 22.6%³ meaning that for future land demands, the forest lands and agricultural lands may have to be used. Also, the per capita amount of agricultural land has reduced by 67% from 1951 (0.48 Ha) to 2007/08 (0.16 Ha).

Degradation of soils and land due to soil erosion and other degradation processes is a severe problem in many regions in India. As per available estimates (2010), total degraded land in the country is about 120.40 million Ha. Land degradation leads to decline in soil fertility, creates problems of alkalinity/salinity/acidity and water logging etc.

The degraded soils are often used by marginal farmers and tribal population. According to studies, the economic losses of reduced productivity of these lands count for approx. Rs. 285,000 million, which is about 12% loss of total value of productivity of these lands⁴.

Water resources projects are frequently being planned and implemented in a fragmented manner without giving due consideration to optimum utilisation of water resources, environmental sustainability and holistic benefit to the people⁵. The natural water bodies and drainage channels are being encroached upon, and diverted for other purposes. The

¹ This category includes urban and rural settlements, industrial complexes, transport network, heritage sites, mining and water bodies

² This category includes barren and un-culturable land, other uncultivated land excluding fallow-land, fallow land

³ Source: Agricultural Statistics at a Glance 2010, Directorate of Economics & Statistics, Department of Agriculture & Cooperation

⁴ Source: Degraded and Wastelands of India – Status and Spatial Distribution, Indian Council of Agricultural Research, 2010, p. 139

⁵ Draft National Water Policy (2012) as recommended by National Water Board, GoI, Ministry of Water Resources, point 1.2

groundwater recharge zones are often blocked. There is growing pollution of water sources, especially through industrial effluents, which is affecting the availability of safe water besides causing environmental and health hazards. In many parts of the country, large stretches of rivers are both heavily polluted and devoid of adequate flows to support self-purification, aquatic ecology, cultural needs and aesthetics. The characteristics of catchment areas of streams, rivers and recharge zones of aquifers are changing as a consequence of land use and land cover changes thereby affecting water resource availability and quality.⁶

Due to climate change, there are increasing temperatures and issues of drought and flooding. Land use changes, such as conversion of forest lands to agriculture or industrial use can be a factor in increasing CO₂ (carbon dioxide) (a dominant greenhouse gas) atmospheric concentrations, thereby contributing to climate change.

Due to growing urbanisation and industrialisation, as well as usage of chemicals for agriculture, there are threats of pollution and disasters. There are potential impacts from handling, storage and transportation of hazardous chemicals/materials and wastes, emission of pollutants including toxic emissions, discharge of effluents, especially those that are not easily biodegradable and toxic, pollution of ground water, streams, rivers, lakes, oceans, or other bodies of water, industrial disaster risks and natural disaster risks.

There are also growing risks to biodiversity with loss of species and threat to ecosystem services.

Need for policy framework for optimal utilization of land resource

There is a need for a policy framework to be formulated at the national level incorporating concerns of various sectors and stakeholders so as to ensure optimal utilization of land resource through appropriate land use planning and management.

Such a policy should provide guiding framework for the States to adopt and formulate their own policies incorporating their State specific concerns. The States should develop land use policies by consulting all stakeholders and ensuring appropriate legal backing. Further, detailed land use strategies and plans should be developed in accordance with these policies so as to achieve sustainable development.

“National Land Use Policy Guideline and Action Points” (1988) was prepared by the Government of India, Ministry of Agriculture after intensive deliberations. In the said policy, framing of suitable legislation and its sincere enforcement were stressed by imposing penalties, of violation thereof. The said policy guidelines were placed before the ‘National Land Use and Wasteland Development Council’. The Council agreed to the adoption of policy and circulated the same throughout the country for adoption after suitable considerations at the State level. However, the policy did not make the desired impact.

The proposed policy framework at national level is hereinafter referred to as the “National Land Utilisation Policy”. The policy seeks to order and regulate land use in an efficient and rational way, thus taking care of the

⁶ Draft National Water Policy (2012) as recommended by the National Water Board, Gol, Ministry of Water Resources, point 1.2

needs of the community while safeguarding natural resources and minimising land use conflicts. The need for such policy, the challenges, the guiding principles etc. are detailed in the following sections.

2. Core Issues to be Addressed

Unregulated land use shifts India's territory includes 3.287 million sq. km. (328.73 million Ha) with west to east extent of approx. 3,000 km and north to south extent of approx. 3,200 km.

Numerous developmental activities demand land. With progression of development, land use changes take place with time. If not regulated such changes can become detrimental in the long run for the sustainable development of India. During the period 1950-51 to 2007-08⁷, the net sown area in the country has increased from 41.8% to 46.1%. the forest area has increased from 14.2% to 22.8%, and the area under non-agriculture use, which include industrial complexes, transport network, mining, heritage sites, water bodies and urban and rural settlements has increased from 3.3% to 8.5%.

These increases of land use as above have lead to reduction of land use elsewhere. During the same period (1950-51 to 2007-08), the "other areas" that include barren & un-culturable land, other uncultivated land excluding fallow land and fallow lands have drastically decreased by nearly half from 40.7% to 22.6%.

The mining areas are about 0.17% of total land of India, the urban areas are about 2.35% and the industrial areas are much less than 1%. However, with rapid industrialization and urbanization, the associated infrastructure development, the lands under these uses will further increase. These increases of demands of land will require land to taken away from other uses. So far, the land under "other areas" were being used. However, these lands may no further be usable as they maybe under steep hills or other such terrains or uses that constrain their use for developmental purposes. In such cases, the demands for additional lands will be resorted to from agricultural uses or forests uses which would be detrimental.

There is a need to strategise utilisation of land and its management so that the land use changes are not detrimental to sustainable development of India.

Reducing per capita land resource Due to growing population in India, the per capita availability of land has reduced from 0.89 Ha in 1995 to 0.27 Ha in 2007/08. It is estimated that by 2030, India will become the most populated country on earth with 17.9% of world's total population. With this, the per capita land availability will further reduce.

Such reducing per capita land availability will have a direct bearing on the land requirements for various developmental purposes and community development. The concerns become severe when the land availability is

⁷ Source: Agricultural Statistics at a Glance 2010, Directorate of Economics & Statistics, Department of Agriculture & Cooperation

reduced directly in the areas that support human life or natural resources such as water or ecosystems including flora and fauna, and agricultural areas.

Meeting the demands of rural and agriculture sectors

As per the 2011 Census, 68.84% of the country's population lives in 6,40,867 villages and the remaining 31.16% lives in 7,935 urban centres. Although agriculture presently accounts for only about 14% of the Gross Domestic Product (GDP), it is still the main source of livelihood for the majority of the rural population, and provides the basis of food security for the nation. Therefore, fertile agriculture land and clean water resources need to be protected effectively for providing and ensuring livelihood to rural population and food security for the nation.

Currently, India produces about 245 million tons of food grains while for 2020 it is estimated that the demand for food grains shall rise by 25% to 307 million tons. The agricultural productivity⁸ is currently half of what it is in many other countries. The solution for food productivity and security may not lie in stopping diversion of agriculture land in all circumstances, but also in increasing food production through higher productivity. However, the increasing use of soil can cause threat to its productivity, as it was experienced in several other countries. Hence, the stark question is whether soils will be productive enough to sustain a population of one billion by the end of the century at higher standards of living than those prevailing now.

There is a need for long term plans to meet the food security as well as livelihood issues. For this purpose, reasonable restrictions on acquisition and conversion of at least certain types of agricultural land should be introduced. As per the National Policy for Farmers, 2007 (NPF 2007), prime farmland must be conserved for agricultural use and except under exceptional circumstances the use should not be altered. There is a need to protect agricultural areas that are essential for food security including the prime agricultural lands, command areas of irrigation projects, and double cropped land. There is also a need to protect agricultural lands that are essential for livelihood of rural and tribal populations.

Protecting lands under natural resources and ecosystem services

India comprises seven climate regions in three groups: a) tropical wet-humid group with tropical wet (humid or monsoon climate, and tropical wet and dry or savannah climate; b) dry climate group with tropical semi-arid (steppe) climate, sub-tropical arid (desert) climate and sub-tropical semi-arid (steppe) climate; c) sub-tropical humid climate group with sub-tropical humid (wet) and dry winters climate, and the mountain, or highland, or alpine climate.

India comprises of nine bio-geographic regions, i.e. the Trans-Himalayan Region, the Himalayas, the semi-arid areas, the Western Ghats, the North-West Desert Regions, the Deccan Plateau, the Gangetic Plain, North-East India, the islands, and the coasts.

India has extraordinarily rich biodiversity and several environmentally sensitive and fragile zones. India is one of the twelve mega-biodiversity countries in the world, comprising over 91,000 animal and 45,500 plant species. Nearly 6,500 native plants are still used prominently in

⁸ Draft Approach Paper of the Planning Commission for XII Plan

indigenous healthcare. Furthermore, India is recognized as one of the eight so called 'Vavilovian Centres of Origin and Diversity of Crop Plants', having more than 300 wild ancestors and close relatives of cultivated plants still growing and evolving under natural conditions⁹.

India has a wide range of soils, classified into 27 broad soil classes. Alluvial soils, black cotton soils, and red soils covering a total of approx. 56% of the total land area, which are considered suitable for a wide range of crops. Laterite and lateritic soils and desert soils covering another 15% of the land are not suitable for agriculture¹⁰.

India's water resources are limited and scarce. The country has only 4% of the world's renewable water resources at its disposal. Furthermore, these limited resources are distributed unevenly over time and space. In addition, there are challenges of frequent floods and droughts in one or the other part of the country¹¹.

The total area of the recorded forests in the country (2003) is 77.47 million Ha, or 23.57% of the country's geographic area. Of the forest areas, 51.6% are notified Reserved Forests, 30.8% are notified Protected Forests and the remaining 17.6% are un-classed forests¹². The National Forest Policy of 1988, the Indian Forest Act and various other State legislations on the matters pertaining to forests provide for the guiding principles, and ways and procedures through which legally declared forests are to be utilised and administered.

India is rich in ample resources of a number of minerals and has the geological environment for many others¹³. India produces 89 minerals out of which 4 are fuel minerals, 11 metallic, 52 non-metallic and 22 minor minerals.

There are several ecosystem services being offered by the natural environment and its resources. These include:

- Provisioning, such as the production of food, water, pharmaceuticals, industrial products, wind/wave/hydro-power and biomass.
- Supporting, such as purification of water and air; nutrient cycles; crop pollination; seed dispersal; disease control.
- Cultural, such as spiritual and recreational benefits (e.g., ecotourism).
- Preserving, genetic and species diversity for future use; accounting for uncertainty.
- Regulating, such as the carbon sequestration; climate regulation; waste decomposition; detoxification, flood retention.

There is a need for protection of the natural resource areas including biodiversity areas, forest areas etc. and ecosystem service areas. While areas such as National Parks, Biosphere Reserves etc. are clearly demarcated due to existing legal provisions, the "Eco Sensitive Zones"

⁹ Preamble of the National Biodiversity Action Plan, Gol, MoEF, 2008

¹⁰ India's Forests, Part 1, Gol, MoEF, 2007

¹¹ Draft National Water Policy (2012) as recommended by National Water Board in its 14th Meeting held on 7th of June, 2012, Gol, Ministry of Water Resources, page 1

¹² India's Forests, Part 1, Gol, MoEF, 2007, page 10

¹³ National Mineral Policy, 2008, Gol, Ministry of Mines, point 2.1

being identified around them are at present at the discretion of the agencies involved. It has to be ensured that reasonable extents of areas around the environmentally sensitive/fragile areas are demarcated and land use is planned properly. There is also a need to regulate and control land uses in such 'Eco Sensitive Zones' so as to avoid conflicts or negative environmental impacts.

*Meeting
urbanisation
demands*

Level of urbanization in India has increased from 17% in 1951 to 31% in 2011. According to the world population prospects by the United Nations, 55% population of India will be urban by the year 2050. With this pattern of urbanization, the urban population of 377 million as in 2011 will be 915 million by the year 2050.

During the decade 2001-2011, the number of towns in the country has increased from 5,161 to 7,935. The number of urban agglomerations, having a population of more than one million has increased from 5 in 1951 to 53 in 2011.

Most of the cities are traditionally located along the major rivers, around lakes and along the coastline, the agriculturally productive belt and environmentally sensitive areas. The urban land is about 7.74 million hectares, which is only 2.35% of the country's total land area. However, several land use conflicts and environmental problems originate from urban area. The mega cities are mostly spilling over to rural-agricultural belt (peri-urban areas), for example due to abnormally high land price in the cities as compared to household income of the average citizens.

The peri-urban areas or fringes of such agglomerations are under fast transformation resulting into haphazard growth of slums, unauthorized colonies, piecemeal commercial development, intermixes of conforming and non-conforming uses of land coupled with inadequate infrastructures, services and facilities.

Cities and towns are emerging as centers of economic activity. In days to come, the urban sector will play a critical role in the structural transformation of the Indian economy and in sustaining the high rates of economic growth. Ensuring high quality public services for all in the cities and towns will also facilitate the full realisation of India's economic potential.

The demand for non-farm land use will increase further in future. There is a need for appropriate land utilisation and management strategy and land use planning to cater to the growing urbanisation needs.

There is scope for re-densification of urban areas by augmenting the existing infrastructure. Large chunks of institutional land within big cities are lying vacant or under utilised or not available for urban development which can be put to optimum use by way proper planning and land management system. Large extents of agricultural land still exist within the municipal boundaries of small & medium size towns due to slow pace of physical growth and such lands should preferably be retained as such, particularly if the soils are of high quality.

There is need for proper planning of urban areas and the regions around the urban areas.

Meeting industrialisation demands

Industrial development, apart from urbanization, is the major driver of economic growth in India. The 12th Five Year Plan provides that the country needs to reach an annual economic growth rate of at least 8% in five years (2012-17) in order to significantly increase the quality of life of its citizens, reduce poverty and foster environmentally sustainable development. The 12th Five Year Plan proposes growth of economy at 9 to 9.5% during the Plan period (2012-17) and has ambitious targets for various sectors. For example, the growth of manufacturing sector is proposed at 9.8-11.5% and the mining and quarrying at 8 – 8.5%. This will bring in demand for additional land and put pressure on existing land uses for their conversion.

The National Manufacturing Policy 2011 of the Government of India has set industrial growth rate of 12 to 14% in the medium run and contribution of industrial sector to national GDP by 25%. It also aims to create 100 million additional jobs by 2022. It has proposed the development of National Manufacturing and Investment Zones (NMIZ) in the form of Industrial Clusters and Integrated Townships each having an area of 5,000 hectares.

The industrial development that is seen in the form of industrial estates, special economic zones, specialised industrial parks, investment zones, NMIZs (National Manufacturing and Investment Zones), special investment regions, PCPIRs (petroleum, chemicals and petro chemical investment regions) and industrial corridors occupies a lot of land. The industrial development is associated with supportive development, viz, housing areas, transport, trade and commerce areas, wasteland, waste water treatment and disposal areas etc., which also require considerable amounts of land.

The Delhi Mumbai Industrial Corridor covering an overall length of 1,483 km and passing through the States of Uttar Pradesh, Haryana, Rajasthan, Madhya Pradesh, Gujarat and Maharashtra and the National Capital Region of Delhi, will have 24 identified Industrial Areas and Investment Regions requiring large quantity of land for development not only for industrial areas but also for supporting population arising out of 3 million jobs that would be created. A similar Chennai-Bengaluru Industrial Corridor is proposed. Similar other mega industrial infrastructure projects will come up in the future in the country.

The creations of large number of SEZs as per the Special Economic Zone Act of 2005, involving large extent of fertile agricultural land have added substantially to already aggravated land relations in India. An SEZ may bring far reaching changes in the local economy. However, people lose access to farmlands, grazing grounds water bodies and other common resources. The agrarian protests against the SEZs are prevalent everywhere in India. These protests have resulted in a paradigm shift in the government policy like, putting a cap of 5,000 Ha of land for each SEZ and an important decision that governments will not invoke its powers under 'eminent domain' and 'public purpose' to acquire land for SEZs. However, these policy changes may not prove adequate to address the core issues unless there is accompanying land use planning strategy, particularly because of large requirements of land. The requirement of land for SEZs which are given 'in-principle approval' stands at 2,00,000 Ha, which, as per the estimates of the Committee on

State Agrarian Relations and Unfinished Task in Land Reforms, is capable of producing around 1 million tons of food grains.

There is a need for appropriate land utilisation and management strategy and land use planning to cater to the growing industrialisation needs.

Meeting mining sector demands

Land has hidden treasure of vast resources of different kinds of minerals. India is rich in mineral resources such as bauxite, iron, copper, zinc, gold, diamonds etc. Minerals are basic raw materials for many industries and play a key role in the evolution of human society and the development of economies. The wide availability of the minerals in the form of abundant rich reserves/resources makes it very conducive for the growth and development of the mining sector in India.

Presently, utilisation of land by mineral sector (excluding atomic, fuel and minor minerals) is about 0.17% of India's total land (as in 2010-11) and contributes about 2.72% to the GDP of India. The sector provides employment to over 5 lakh people directly. The needs of economic development of India make the extraction of the nation's mineral resources an important priority¹⁴.

Minerals are valuable, finite and largely non-renewable natural resources, but are site specific. The State Governments are the owners of minerals located within their respective boundaries. The Central Government is the owner of the minerals underlying the ocean within the territorial waters or the EEZ (exclusive economic zone) of India. Extraction of minerals involves use of land for undertaking mining.

Mining industry, unlike other industries, is site specific and degradation of the land and other associated natural resources becomes inevitable. Mining areas are closely linked with forestry and environment issues. A significant part of the nation's known reserves of some important minerals are in areas which are under forest cover. Further, mining activity has potential to disturb the ecological balance of an area.

For ensuring sustainable development, there is a need to properly plan and manage mining areas.

Meeting transport sector demands

The major land users in the transport sector are: railways (railway tracks, stations, workshops, godowns etc.), roadways (roads, fuel pump stations, toll plazas, utilities etc.), airways (airports, runways, workshops etc.), waterways (ports, workshops, godowns etc.). The total road network in India is 4.69 million km in length. In the case of roadways, under the National Highways Act, 1956, the Central Government has power to acquire land for National Highways.

The transport networks require considerable amounts of land. Their proper planning is very important as otherwise the transport networks can trigger land use conflicts. There is a need for properly aligning and planning of transportation areas taking into consideration the national/state/ regional/local development.

Protecting social

India has considerable amount of vulnerable populations in the rural,

¹⁴ National Mineral Policy, 2008, GoI, Ministry of Mines, point 2.3

interests tribal and backward areas, many of whom do not have adequate access to basic amenities and proper livelihood. There are issues of livelihood, poverty eradication, inclusiveness and gender. There is a need to support social development addressing these issues.

Land plays an important role in all these matters. There is a need to prevent or at least minimize social conflicts arising from acquisition of lands or development of such activities that pose conflicts. Land use planning should be undertaken giving due considerations for social aspects.

Protecting heritage India has rich cultural and historic heritage. All these areas including religious places of importance, scenic areas, heritage areas, archaeological sites etc. need to be protected from negative impacts of development and land use changes.

Depending on the developmental activities coming up in the vicinity of these areas, there could be potential impacts. There is a need for proper planning of development in all such areas.

Development vs. sustainable development The developmental activities require land and they have potentials to displace people, exploit natural resources and cause negative environmental impacts as well as other land use conflicts.

There is a need to support various sectors to achieve their development targets, such as those of urban development, industrial development, mining, and infrastructure development (transportation, ports, harbours, airports etc.) through planned and sustainable development approaches so as not to have land use conflicts or negative impacts.

While the conventional development approaches focus on meeting the socio-economic developmental needs, the Sustainable Development approaches focus on meeting the socio-economic-environmental needs judiciously through appropriate land use planning & management and having regard to resources (land, water, energy, materials and finances), environment, social concerns and governance.

Inadequate land use planning capacities There is a severe lack of systematic, orderly and up-to-date spatial database in the country that is readily available for the purpose of land use planning. Also, due to lack of systematic database, there would also be difficulties initially in making projections and forecasting of prospective needs for land uses by various sectors. However, the country is quite advanced in the applications of Geographic Information Systems (GIS) and remote sensing, which come handy for generating spatial database. The Government of India is already working on setting up National Spatial Data Infrastructure. Systematically, such spatial databases could be built-up over a period of time.

Also, the existing database on land use in the country is highly inadequate. There is no mechanism to monitor land use changes taking place and their impacts.

Introduction of systematic and integrated land use planning at national, state and regional levels is going to be a major challenge. There have to

be supportive instruments (mapping, spatial information, planning processes, tools, methods, procedures, standards etc.) for land use planning and management which also take into account inclusiveness, poverty, gender and climate change aspects.

Another aspect is the availability of guidelines for uniform land use planning. Except for urban sector, where urban development plan formulation and implementation (UDPFI) guidelines exist; the other sectors such as industry, environment, transport, mining, agriculture etc. do not have similar guidelines in place. For ensuring proper land use planning, there is a need for development of detailed guidelines for following integrated approaches catering to all the sectors.

There is also lack of adequate institutional structures at national, state, regional/district and local levels for planning and management of land resource.

There is a need for addressing all the above aspects.

3. Current Land Use Planning and Utilisation Trends

Urban area planning

The Urban Development Plans Formulation and Implementation (UDPFI) Guidelines¹⁵ (1996) recommended urban development planning system, which consists of a set of the following four inter-related plans:

a) Perspective Plan: A long term (20-25 years) policy plan of spatio-economic development of the settlement.

b) Development Plan: Conceived within the framework of the approved Perspective Plan, it is a medium-term (generally five years co-terminus with the term of the local (authority) comprehensive plan of spatio-economic development of the urban centre.

c) Annual Plan: Conceived within the framework of Development Plan, it is a plan containing the physical and fiscal details of new and ongoing projects that the local authority intends to implement during the respective financial year.

d) Plans of Projects/Schemes: Conceived within the framework of approved Development Plan/Annual Plan, these are detailed working layouts for execution by a public or private agency.

Master Plans and Development Plans are prepared for urban areas, metropolitan areas and sometime Regional Plans such as for Delhi National Capital Region. The Master Plans or Development Plans are prepared by the urban local bodies or the Town Planning Departments or the Development Authorities. One of the main issues is, in the absence of Regional Plans, the urban sprawl forces itself into farmlands and rural areas. If all the urban areas in the country are properly planned, this would bring about 2.35% of the country's land under planned development.

¹⁵ Urban Development Plans Formulation and Implementation (UDPFI) Guidelines; Volume 1; Ministry of Urban Affairs and Employment, GoI; August 1996. The UDPFI Guidelines are currently under revision.

Industrial investment zones planning

The National Manufacturing Policy (Nov 2011) of the Government of India, promotes integrated industrial townships, known as the National Investment and Manufacturing Zones (NIMZs) with at least 5,000 Ha area and calls for preparation of environment friendly Development Plans. Major environmental aspects are required to be taken care of in the NIMZ in the beginning itself by having proper zoning during Master Planning.

The state level/local level authorities such as industrial development corporations and infrastructure development boards are identifying locations for industrial estates, special economic zones, investment zones/regions and industrial corridors and preparing development/master plans for such areas. For example, the Gujarat Infrastructure Development Board is preparing an elaborate Development Plan for Dholera Special Investment Region, which is a part of the Delhi-Mumbai Industrial Corridor. Such plans guide future land use.

If all the industrial areas in the country are properly planned, this would bring about 1% of the country's land under planned development.

Eco sensitive area planning

Under the Environment (Protection) Act, 1986, the Ministry of Environment & Forests, GoI is notifying "Eco Sensitive Zones", which require preparation of Zonal Master Plans or Zonal Development Plans that guide further development in the area. "Eco Sensitive Zones" may be defined as areas which contain natural features with identified environmental resources having 'incomparable values' (water resource, flora & fauna etc.) requiring special attention for their conservation. The Eco Sensitive Areas will include protected areas such as National Parks, Wildlife Sanctuaries, Conservation Reserves and Community Reserves (total number: 659), which cover about 4.79% of the total geographic area of the country. The areas other than protected areas such as landscape areas, areas with historical value also are covered under Eco Sensitive Zones.

The purpose of declaring Eco Sensitive Zones is to create a kind of 'shock absorber' for the specialized ecosystem that needs to be protected. The Eco Sensitive Zones would act as transition zone from areas of high protection to areas involving lesser protection. These areas are of regulatory nature rather than prohibitive nature, unless or otherwise so required.

The objectives of declaring Eco Sensitive Zones are:

- To maintain the response level of an ecosystem within the permissible limits with respect to environmental parameters.
- To take care of special protection needs because of its landscape, wildlife, historical value etc. and to ensure that the new activities allowed are within the carrying capacity of that area.
- To ensure protection and conservation of 'Entities of Incomparable Values' of these zones and regulate development activities based on a scientific basis and based on adequate participation in the decision making by the local communities.
- To ensure compliance to the provisions contained in the approved Zonal Development Plan/Master Plan/Management Plan through the constitution of high level monitoring committees.

The State Governments identify these Eco Sensitive Zones and the Ministry of Environment & Forests, GoI finalises the same and notifies under the Environment (Protection) Act, 1986. Accordingly, the Zonal Development Plans are prepared and implemented for regulating further development or land uses in the areas.

If all the Eco Sensitive Zones in the country are notified and planned, this would bring about 5% of the country's land under planned development. If all the environmental resource areas and ecosystem service areas and their surroundings are properly planned, about 25 to 30% of the country's land will come under planned development.

*Mining area
planning*

In the case of mining areas, the steps being currently taken include allotment of mineral concession (i.e., mining lease) for extraction of mineral, seeking consent from land owner or the agency having surface right for the area covered under lease, operating the allotted mine with complying all existing applicable laws including implementation of mine closure plan as approved by the competent authority. No mining lease would be granted to any party, private or public, without a proper mining plan including the environmental management plan approved and enforced by statutory authorities.

However, elaborate land use planning is not undertaken. If this process is initiated, about 0.17% of the country's land will come under planned development.

*Watershed
management for
productivity of
agricultural lands*

The Government of India initiated a number of centrally sponsored schemes like Integrated Wasteland Development Programme, Drought-Prone Area Programme and Desert Development Programme for assisting states to increase productivity of marginalised land.

Later in 2009, all these programmes were merged under single integrated scheme called Integrated Watershed Management Programme, covering not only the marginal lands but also the area under rain-fed agriculture. This was based on the realisation that irrigated area under Green Revolution has already reached its productivity limits and the increase in productivity of vast extent of rain-fed area is the main plank to address the looming food security issues of the country.

The watershed areas, if associated with land use planning could serve planned development. If planning process is initiated in the watershed area, particularly of the areas with prime agricultural lands, about 40% of the country's land would come under planned development

*Coastal zone
planning*

Coastal environment plays a vital role in nation's economy by virtue of the resources, productive habitats and rich biodiversity. India has a coastline of about 7,500 km of which the mainland accounts for 5,400 km, Lakshadweep coasts extend to 132 km and Andaman & Nicobar Islands have a coastline of about 1,900 km. Nearly 250 million people live within a distance of 50 km from the coast.

The coastal zone is also endowed with a very wide range of coastal ecosystems like mangroves, coral reefs, sea grasses, salt marshes, sand dunes, estuaries, lagoons, etc., which are characterized by distinct biotic and abiotic processes and ecosystem services. The coastal areas are

assuming greater importance in recent years, owing to increasing human population, urbanization and accelerated developmental activities. These anthropogenic activities have put tremendous pressure on the fragile coastal environment. There has been significant degradation of coastal resources and ecosystem services in recent years due to poorly planned developmental activities and overexploitation of natural resources.

For the purpose of protecting and conserving the coastal environment, the Ministry of Environment & Forests, GoI issued the Coastal Regulation Zone Notification dated 19.2.1991 under Environment (Protection) Act, 1986. This notification regulates all developmental activities in the Coastal Regulation Zone area. This notification imposed formidable restrictions on the land use in the coastal region.

The Government of India has initiated, with the support of the World Bank, the Integrated Coastal Zone Management (ICZM) Project for building national capacity for implementation of comprehensive coastal management approach in the country, and piloting the integrated coastal zone management approach in states of Gujarat, Orissa and West Bengal. The project has an important element of preparation of an Integrated Coastal Zone Management Plan that considered land use planning.

Land administration

During late 1980's, the Government of India launched centrally sponsored programme Computerisation of Land Records (CLR) and Strengthening of Revenue Administration & Updating of Land Records (SRA&ULR) to improve revenue administration and the sordid state of land records in the country. Various States achieved differently in these programmes.

The Government of India again took initiative to revitalize the land administration agenda by merging the earlier two programmes into a single integrated programme called the 'National Land Records Modernization Programme (NLRMP)' which aims at ushering in a system of updated land records, automated and automatic mutation of land transactions, integration between textual and spatial land records, inter-connectivity between revenue and registration systems, and finally replacing the present deeds registration and presumptive title system with that of conclusive titling with title guarantee. NLRMP will help support in land use planning and management system.

Land Use Boards

During 1970's, all the States established 'State Land Use Boards' under the Chairmanship of respective Chief Minister of the State. These Boards were meant to provide policy directions and coordinate the activities of different departments dealing with soil and land resources. These Boards never functioned the way they were meant to be. Overtime, nearly all of them have been abolished.

At present, the States do not have any mechanism at their disposal to deal with land policy issues in a coherent manner. Hence, the responses of the States to land issues are impulsive and adhoc without consistency. No rationale and scientific considerations appear to be guiding the decisions on land use.

Relevant existing

There are several existing policies relating to land use. These include the

policies National Forest Policy 1988, the National Land Use Policy Outlines 1988, the Policy Statement of Abatement of Pollution 1992, the National Livestock Policy Perspective 1996, the National Agricultural Policy 2000, the National Population Policy 2000, the National Policy and Macro-level Strategy and Action Plan on Biodiversity 2000, the National Environmental Policy 2006, the draft National Land Reforms Policy 2013 and the National Water Policy 2013.

Five states, namely, Bihar, Kerala, Tamil Nadu, Punjab and Uttar Pradesh have prepared draft Land Use Policy. Tamil Nadu, which has developed draft Land Use Policy, the Land Use Division of the State Planning Commission is looking into the land use aspects.

Andhra Pradesh has prepared outline of Land Use Policy. Eight states, namely Arunachal Pradesh, Assam, Gujarat, Haryana, Jammu & Kashmir, Maharashtra, Mizoram and Rajasthan have initiated preparation of draft Land Use Policy.

4. Guiding Principles for the National Land Utilization Policy

*1st Principle:
Human beings
are at the centre* Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.

*2nd Principle:
Inclusive growth,
poverty
eradication and
gender equality –
equal
opportunities* Inclusive growth, poverty eradication and gender equality are indispensable requirements for sustainable development of India, and must be addressed in all policies, plans and programmes.

*3rd Principle:
Balanced
development and
intergenerational
justice* Developmental sectors and activities must be planned in a balanced manner to meet economic, social and environmental needs of present and future generations, and should aim to minimize any large-scale displacement of population.

*4th Principle:
Efficient
utilisation of
resources and
mitigation of
impacts* Long-term planning for optimum utilisation of land and saving scarce land resource is essential and as far as possible, projects should be set up on recycled lands, wastelands, degraded lands or un-irrigated lands provided these are not performing any other important function like bio-diversity, water resources etc.

*5th Principle:
Integrated and
comprehensive
development
planning* Development planning must be comprehensive, sustainable, and integrated vertically (national, state, regional and local levels) taking into consideration the interest of all other sectors and stakeholders.

*6th Principle: The
States are
custodian of land* States are custodian of land and state governments must eliminate unsustainable patterns of land utilisation / land management and provide necessary legal and institutional support to facilitate capacity building and participatory, transparent and comprehensive land use planning.

*7th Principle:
Harmonization
with existing
policy, legislative
and regulatory
framework* The existing constitutional provisions and rights, the existing laws, rules, standards, procedures, guidelines and stipulations brought out by various ministries, departments and institutions of the Government of India, as applicable to land utilisation policy shall continue to be in force for taking decisions on land matters and land use changes.

5. Objectives of the National Land Utilisation Policy

Goal The goal of the National Land Utilisation Policy is to ensure sustainable development of India.

Objective To ensure optimal utilisation of the limited land resources in India for achieving sustainable development, addressing social, economic and environmental considerations and to provide a framework for the States to formulate their respective land utilisation policies incorporating State-specific concerns and priorities.

The specific objectives are given below.

*Objectives
related to social
concerns* 1. Protection of agricultural lands from land use conversions so as to ensure food security and to meet consumption needs of a growing population and to meet livelihood needs of the dependent population.

2. To identify and protect lands that are required to promote and support social development, particularly of tribal communities and poor section of society for their livelihood.

3. To preserve historic and cultural heritage by protecting, places/sites of religious, archaeological, scenic and tourist importance.

*Objectives
related to
environmental
concerns* 4. To preserve and conserve lands under important environmental functions such as those declared as National Parks, Wild Life Sanctuaries, Reserved Forests, Eco Sensitive Zones, etc. and guide land uses around such preserved and conserved areas so as not to have land use conflicts or negative environmental impacts.

5. To preserve the areas of natural environment and its resources that provide ecosystem services.

*Objectives
related to
developmental/
economic
concerns* 6. To promote properly guided and coordinated development in a sustainable manner of all developmental sectors including agriculture, urban, industrial, infrastructure and mining so as to minimise land use conflicts or negative environmental impacts.

*Objectives
related to
enforcement and
implementation of
the policy* 7. To suggest a general implementation framework for implementing land utilisation policy by all concerned at different levels, viz. national, state, regional and local, and undertaking capacity building.

6. Overall Approach

Guiding framework for states The National Land Utilisation Policy shall serve as a guiding framework for preparation of state land utilisation policies by different states having regard to the state-specific needs, potentials, priorities and legal provisions.

Overview of the approach The land in the country will be divided into Land Utilisation Zones (LUZs) based on the predominant use of the lands (Ref. Section 7). Such LUZs will be subjected to land use planning in the form of Regional Development Plans for the entire region and Development Plans or Master Plans for the specific areas within the LUZ. Various land uses will be reflected in these plans, as per a standard land use classification system, based on which further development will be guided.

For the purpose of better management of land utilisation, the land uses in the Regional Development Plan or Development Plan are categorised into “Land-use Management Areas” (LMAs) (Ref. Section 8 below).

The LUZs and LMAs will allow for optimal land utilisation in the country and progress towards sustainable development.

Identifying Land Utilisation Zones The National Land Utilisation Policy takes into consideration the predominant (existing or scientifically established) functions of land serving the needs of people, environment as well as different sectors of economy and development. Also, the Policy takes into consideration the existing laws and approaches that govern land uses.

Accordingly, the lands in India are to be classified into various Land Utilisation Zones (LUZs). The identified Land Utilisation Zones will be the priority/focus areas where land utilisation has to be planned and guided properly. The LUZs will look into functional aspects of land use and hence, LUZs may or may not follow administrative boundaries. However, considering the advantages of following administrative boundaries, suitable decisions have to be taken on the boundaries.

Management of Land Utilisation Zones For the purpose of land management, the Land Utilisation Zones are to be divided into various “Land-use Management Areas” (LMAs) to ensure protection, regulation, control and guided development or even reserve lands in accordance with legal provisions and priority needs of various sectors.

Planning of Land Utilisation Zones The Land Utilisation Zones (LUZs) are to undergo Land Use Planning for preparation of Plans (Regional Plans for regions, Development Plans or Master Plans for rural areas, agricultural areas, urban areas, industrial areas, mining areas etc.).

Land use planning is an exercise that designates the use of land, required for rural, urban and industrial development and environmental protection, so as to improve a community’s physical, economic, and social performance, efficiency and well-being.

For all the Land Utilisation Zones, land use planning should be undertaken independently or wherever possible, integrated into the Regional Plans, District Development Plans (covering both rural and urban areas), Master Plans of cities or Zonal Development Plans of Eco

Sensitive Zones or Development Plans of Industrial Investment Regions.

Implementation strategy The National Land Utilisation Policy suggests an implementation strategy taking into consideration the fact that “land and its management” is a State subject.

7. Identification of Land Utilisation Zones (LUZs)

Types of Land Utilisation Zones The following six types of Land Utilisation Zones (LUZs) are to be identified on the basis of predominant land use:

- a) Predominantly Rural and Agricultural Areas;
- b) Areas Under Transformation;
- c) Predominantly Urban Areas;
- d) Predominantly Industrial Areas;
- e) Predominantly Ecological Areas, Landscape Conservation & Tourism Areas. Heritage Areas; and
- f) Major Hazard Vulnerable Areas.

While deciding on the predominant land use, all the relevant aspects such as legal status accorded to the use of land in the area, land potential, socio-economic needs, pattern of land use changes etc. should be taken into consideration.

Wherever possible, the extents of LUZs should be matched with the existing administrative boundaries such as panchayats, districts etc. so that their planning and management becomes simpler.

Predominantly Rural and Agricultural Areas These “Predominantly Rural and Agricultural Areas” include the agricultural areas devoted for food security and rural livelihood. These areas amongst others may include:

- areas characterized by extensive agriculture land use;
- high productivity soils, viz. Class I, II or III soils classification;
- high agriculture production areas;
- command areas of irrigation projects;
- major share of population (say at least 80%) of the area is dependent on agriculture as the major source of livelihood; and
- tribal areas, rural development zones.

Areas Under Transformation The “Areas Under Transformation” are areas where transformation is occurring from agriculture land use to non-agricultural uses. These areas, amongst others, may include:

- a) Rural component of metropolitan regions - the rural component of large city-regions (functional influence area of such cities) and highly urbanised districts comprising both rural and urban areas are experiencing changes in land use. These should be recognized as regional planning categories, as these areas will benefit from proper land use planning;
- b) Peri-urban areas of large cities;
- c) Development corridors comprising the intervening area connecting two metropolitan cities;
- d) Highly urbanizing districts.

- Predominantly Urban Areas* The “Predominantly Urban Areas” are the areas that are catering to urban population and are essential for meeting the ongoing urbanization demands of the country. These areas include:
- a) National/State Capitals (approved planning area as per Master Plan/Regional Plan);
 - b) Metropolitan urban agglomerations (million-plus population) (approved planning area as per master plan / metro-regional plan if any); and
 - c) Urban corridors.
- Predominantly Industrial Areas* The “Predominantly Industrial Areas” are the areas where industrial activity is taking place or is likely to take place in future. The development in the area will be characterized, amongst others, by industrial estates, housing areas/townships, transportation networks, trade & commercial areas, and waste/effluent treatment and disposal. These areas, amongst others, may include:
- a) Mega industrial infrastructure projects such as Industrial Corridors (e.g. Delhi Mumbai Industrial Corridor);
 - b) Special industrial regions (SIRs);
 - c) Petroleum, Chemicals and Petro-chemical Investment Regions (PCPIRs);
 - d) Areas with major industrial estates/complexes, viz. Special Economic Zones (SEZs); Industrial Estates etc.;
 - e) Such other areas.
- Predominantly Ecological and Natural Resources Areas/Landscape Conservation & Tourism Areas/Heritage Areas* These areas include:
- a) “Predominantly Ecological and Natural Resources Areas” - include environmentally sensitive/fragile areas such as reserved/protected forests, biosphere reserves, national parks, wild life sanctuaries and coastal regulation zones etc. that are protected by various environments and forest Acts. These provide various ecosystem services. These areas may also include natural resource areas including water bodies (rivers, creeks, lakes), areas with important mineral resources and other natural resources areas other than those covered under environmentally sensitive/fragile areas.
 - b) “Predominantly Landscape Conservation & Tourism Areas” – areas with high share of attractive landscapes and scenic beauty;
 - c) “Predominantly Heritage Areas” - historic areas, places of religious importance, areas with monuments of national/state level importance, areas with world heritage sites etc.
- Major Hazard Vulnerable Areas* These areas include the areas that are vulnerable to natural and manmade hazards. These Major Hazard Vulnerable Areas include:
- a) Areas with “Major Accident Hazard” industries (as defined under the Major Hazard Accident Rules, 1997) which have potential to cause major accidents. Major Chemical Accident means an occurrence including any major emission, fire or explosion involving one or more hazardous chemicals and resulting from uncontrolled development in the course of industrial activity or

due to natural events leading to serious effects both immediate or delayed, inside or outside the installation cause substantial loss of life and property including adverse effects on environment.

Major accidents include incidents involving loss of life inside or outside the site or ten or more injuries inside and/or one or more injuries outside or release of toxic chemical or explosion or fire of spillage of hazardous chemical resulting in 'on-site' or 'off-site' emergencies or damage to equipments leading to stoppage of process or adverse effects to the environment.

- b) Areas with major accident hazard activities, other than industries: include areas with gas/chemical pipelines, ports/harbours, storages of chemicals etc.
- c) Areas prone to natural disasters – include areas with high-risks of floods, tsunami, earthquakes etc.

It should be noted that this category of LUZ may have an overlap with other LUZ types. In such cases, the hazard aspects should be adequately integrated while preparing land use plans for such areas.

8. Land-use Management Areas (LMAs)

Types of Land-use Management Zones (LMZs)

The "Land-use Management Areas" (LMAs) are to be identified within the identified Land Utilisation Zones, during the planning process, so as to ensure proper management of various land uses.

For the purpose of ensuring proper management of lands, the Land-use Management Zones are categorised into:

- a) Protected Areas;
- b) Regulatory Areas;
- c) Reserved Areas; and
- d) Guided Development Areas.

Protected Areas

The "Protected Areas" include land uses with a clearly defined geographical space that is recognized, dedicated and managed through legal or other effective means to achieve long-term protection from misuse or abuse other than the use that has been defined or designated as per legal or other effective means.

Such areas include environmentally sensitive and fragile ecosystem areas, viz. national parks, forests, biosphere reserves etc. that are protected under the environmental laws; socially important areas, viz. protected tribal settlements etc.; culturally important areas, viz. historic areas, monuments etc. The land uses of these areas, within the Land Utilisation Zone, should not be altered. All such areas should be clearly demarcated in the land use plans (Regional Development Plans, Development Plans or Master Plans) of the Land Utilisation Zone. In case, any alternation of land use is necessitated and is inevitable, and be treated as a rarest of rare cases, the prevailing laws and rules will apply for undertaking land use change.

Regulated Areas The “Regulated Areas” are the areas that are not legally restricted as in the case of “Protected Areas”, but have important functions associated.

Such areas may include agricultural areas such as prime agricultural lands, human habitat areas such as rural settlements, lands with ecosystem services and natural resource areas (other than those covered under Protected Areas), landscape conservation & tourism areas, cultural and heritage areas, and hazard-prone areas.

All such areas should be clearly demarcated in the land use plans (Regional Development Plans, Development Plans or Master Plans) of the Land Utilisation Zone. The land uses of these areas should preferably be not altered. In case, any alternation of land use is necessitated and is inevitable, such changes should be governed by a set of rules, regulations and procedures.

Reserved Areas The “Reserved Areas” include areas within the Land Utilisation Zone that are/will be under pressure of development, which can cause significant land use changes in the Zone. Such changes may go beyond the planned land uses.

Such areas may include areas near the human habitat areas, areas close to newly planned development/economic centres and areas close to road networks.

All such areas should be clearly demarcated in the land use plans (Regional Development Plans, Development Plans or Master Plans) of the Land Utilisation Zone. In case of any alternation of land use is necessitated, such changes should be governed by a set of rules, regulations and procedures.

Guided Development Areas “Guided Development Areas” include rest of the lands that are not covered under above three types.

The land uses in these areas would be guided by the land use plan (Regional Development Plans, Development Plans or Master Plans) of the Land Utilisation Zone.

9. Key Considerations for Planning & Management of LUZs

1. Ensure optimal utilisation of the land resources of India for achieving sustainable development addressing social, economic and environmental considerations and to provide a framework for the States to formulate their respective Land Utilisation Policies incorporating state-specific concerns and priorities.
2. Ensure protection of agricultural lands from land use conversions so as to ensure food security and to meet consumption needs of a growing population and to meet livelihood needs of the dependent population.

Reasonable restrictions on acquisition of at least certain types of agricultural land, such as the prime agricultural land, should be introduced. The prime agricultural lands, which may include the command areas of irrigation projects, double cropped land etc. as relevant in each state/region/local area should be protected.

3. Ensure protection of lands that are required to promote and support social development. Rights of tribes and poorer sections on common land should be protected.

Land Use Planning should be integrated with rural employment programmes in such a manner that loans and subsidies are given only for those productive activities which represent efficient land use. Land use should be linked to livelihood of rural and tribal populations.

4. Preserve historic and cultural heritage by protecting, places/sites of religious, archaeological, scenic and tourist importance.
5. The natural resource areas including the biodiversity areas, forests areas etc. and ecosystem service areas should be protected. The “Eco Sensitive Zones”, which are identified, should have reasonable extents of areas around the environmentally sensitive/fragile areas and land use planned properly.
6. Preserve the areas of natural environment and its resources that provide ecosystem services.
7. Promote properly guided and coordinated development in a sustainable manner of all developmental sectors including agriculture, urban, industrial, infrastructure and mining so as to minimise land use conflicts or negative environmental impacts.
8. Land use shifts from one use to other use should be purely regulated by a land use plan (Development Plan). While preparing Development Plans, the amount of land use changes from one use to another should be minimised. Once the Plan is prepared, the land use shifts should be monitored. For such monitoring, a monitoring system should be developed and employed. In the long run, there should be targets fixed on the amount of land use changes that may be permitted.
9. To cope with growing urbanisation needs, regional approaches should be adopted covering the zones of spatial influence of the city, including lower order settlements, and regional planning should be undertaken to establish proper hierarchy of settlements with the required infrastructure and services (as per standards of the Ministry of Urban Development).

To minimise the land requirements in the cities for coping with growing urbanisation, the possibilities of re-densification of urban areas by augmenting the existing infrastructure, utilising large chunks of institutional land that are lying vacant or are under utilised or not available for urban development should be utilised. Also, while preparing Master Plans or Development Plans, the possibilities for land use recycling, particularly of lands that are creating land use conflicts, should be considered.

10. The areas to be put under industries or industrial estates should be minimised for optimally utilising the lands through appropriate site master plans. The existing industrial areas could be retrofitted or modernised so as revive sick/closed industries or re-allot for new industries thereby reducing demand for acquiring new lands for industrial estates.

11. All possible mineral bearing areas of the country should be mapped and the mineral bearing areas that are overlapping with environmentally and socially sensitive areas should be avoided for mining and deferred for later years. Also, the mineral bearing areas falling in various LUZs should also be deferred for later years taking into consideration the fact that another predominant land use is already existing in that area.
12. In the case of forest areas chosen for mining and approved by competent authorities, land bank of equivalent non-forest land should be created for compensatory afforestation. Also, after closure of mining, these areas should be put back to the original land use or a land use better adapted to its potential. For example, if the originally land use was forest, it should be revived as forest land or if it was originally a waste land, it could be revised as a water body or forests land etc.
13. While planning for transportation networks, the land use conflicts should be avoided. These areas should be preferably integrated with state/regional/district plans.
14. Areas under cultural heritage, historic places, tourism areas, religious places of interest etc. should be protected. While preparing land use plans, adequate care should be taken.

In addition to the above points, the “Guidelines for Formulation and Implementation of Development Plans (Regional Development Plans and Detailed Development Plans)” referred to in Section in 10 below, should be followed.

10. Implementation Approach

Development of State Land Utilisation Policy Each State Government shall prepare the State Land Utilisation Policy (SLUP) within a period of one year from the date of publication of the National Land Utilisation Policy, having due regard to the National Land Utilisation Policy and incorporating state-specific requirements.

Identification of Land Utilisation Zones Within a period of two years from the date of publication of the National Land Utilisation Policy, each State Government shall identify Land Utilisation Zones within their State, and publish their geographical extents and the intent to develop land use plans.

Similarly, for all the major development projects initiated by the Government of India, as well as those that cover more than one state, Land Utilisation Zones (LUZs) shall be identified by the Government of India.

The scale of state level map used for showing all the LUZs in a State should be 1:1 million.

Planning of Land Utilisation Zones For all the Land Utilisation Zones, land use planning should be undertaken. As a general principle, it is suggested that Regional Development Plan should be prepared for the entire area of LUZ, followed by detailed Development Plan or Master Plan preparation for sub-regions within LUZ. For example, for an Industrial Investment Region that is Predominantly Industrial Zone, a Regional Plan should first be prepared and for the demarcated industrial zone/area within the Industrial Investment Region, a detailed Development Plan or Site Master Plan

should be prepared. In the end, the whole LUZ should be covered by a mosaic of Development Plans or Site Master Plans bordering each other.

For ensuring uniform planning procedures for different LUZs, “Guidelines for Formulation and Implementation of Development Plans (Regional Development Plans and detailed Development Plans or Master Plans)” are to be brought out by the Central Government within one year from the date of publication of the National Land Utilisation Policy. These Guidelines should focus on:

- a) Preparation of spatial development plans for the LUZs taking into consideration the specific needs of the predominant land use under consideration in the LUZ. The technical details to be elaborated, amongst others, include land use classification system, mapping/scales, standards, planning tools/methods etc.

The processes to be followed for involving stakeholders and plan approval should also be detailed. The processes should consider indirect participation of the people through elected representatives, and direct participation through individuals, citizens' groups, neighbourhood groups, business groups, consumer groups, and such other groups, including NGOs and CBOs.

- b) Ensuring efficient implementation mechanism and innovative techniques for promotion of planned and sustainable development.

The planning system for LUZs should consist of a set of the following two inter-related plans:

- a) **Perspective Plan:** A long term (20-25 years) policy plan of spatio-economic development of the LUZ.
- b) **Land Use Plan:** This includes, a) Regional Development Plan, and b) Development Plan or Master Plan. These Plans are to be conceived within the framework of the approved Perspective Plan. These Plans are prepared for medium-term (generally five years, co-terminus with the term of the local authority and/or as per Five Year Plan term). The Regional Development Plan and the Development Plan/Master Plan guide further development in the area and so these Plans should be prepared systematically through scientific approaches as well as through process oriented approaches involving various stakeholders. The guidelines for preparation of these plans should be detailed out in the above referred “Guidelines for Formulation and Implementation of Development Plans”.

In addition, the above plans could be supported by the following two more levels of planning, wherever possible:

- a) **Annual Plan:** Conceived within the framework of Development Plan. It is a Plan containing the physical and fiscal details of new and ongoing projects that the local authorities intend to implement during the respective financial year. The Annual Plans shall have to adhere to the provisions in the Development Plans.

- b) Plans of Projects/Schemes:** Conceived within the framework of approved Development Plan/Annual Plan. These are detailed working plans/layouts for execution by a public or private agency.

Institutional set-up

The institutional set up at National, State and Local levels for implementation of the National Land Utilisation Policy shall be as under:

National Level Set Up:

A National Land Use Council will be set up as a high power committee to adopt, revise, advise and steer the implementation of the National Land Utilization Policy, including resolving inter-state conflicts and issues. The composition of the National Land Use Council is as below:

Prime Minister of India	Chairman
Deputy Chairman, Planning Commission, Government of India	Dy. Chairman
Minister for Agriculture and Cooperation, GoI	Member
Minister for Environment and Forests, GoI	Member
Minister for Commerce and Industries, GoI	Member
Minister for Road Transport & Highways, GoI	Member
Minister for Water Resources, GoI	Member
Minister for Power, GoI	Member
Minister for Finance, GoI	Member
Minister for Urban Development, GoI	Member
Minister for Tribal Affairs, GoI	Member
Chief Ministers of all States	Members
Minister for Rural Development, GoI	Member Convenor

The supportive technical arm/executive body, which assists the National Land Use Council in all matters of the National Land Utilization Policy, is called as the “National Land Use Committee”. The composition of the Committee is as follows:

Minister for Rural Development, GoI	Chairman
Secretary, Ministry of Agriculture, GoI	Member
Secretary, Ministry of Urban Development, GoI	Member
Secretary, Ministry of Environment & Forests, GoI	Member
Secretary, Ministry of Agriculture and Cooperation, GoI	Member
Secretary, Ministry of Road Transport & Highways, GoI	Member
Secretary, Ministry of Railways, GoI	Member
Secretary, Ministry of Commerce & Industries, GoI	Member
Secretary, Ministry of Tourism, GoI	Member
Secretary, Ministry of Water Resources, GoI	Member
Secretary, Ministry of Power, GoI	Member
Secretary, Department of Land Resources, Ministry of Rural Development, GoI	Member Convenor

The National Land Use Committee, amongst others, will be responsible for:

- Technical support to the National Land Utilization Council;
- All matters related to planning, developing/revising and implementation of the National Land Utilization Policy;
- Coordination with various state agencies for preparing state land utilisation policies,
- Documentation and dissemination, including electronic data exchange and web-based tools;
- Preparation of “Guidelines for Formulation and Implementation of Development Plans” including technical details, processes to be adopted and implementation procedures etc.;
- Monitoring – progress, results, impacts
- Capacity building – undertake awareness, training and related measures.

State Level Set Up:

A State Land Use Council will be set up as a high power committee to adopt, revise, advise and steer the implementation of the State Land Utilization Policy, including resolving related inter-district conflicts and issues. The suggested composition of the State Land Use Council is as below:

Chief Minister	Chairman
Minister for Agriculture, State Government	Member
Minister for Urban Development/Town & Country Planning, State Government	Member
Minister for Industries/Commerce, State Government	Member
Minister for Environment & Forests, State Government	Member
Minister for Transport, State Government	Member
Minister for Power, State Government	Member
Finance Minister, State Government	Member
Minister for Water Resources, State Government	Member
Minister for Tourism, State Government	Member
Minister for Rural Development, State Government	Member
Minister for Revenue Development, State Government	Member
Chairman of the State Planning Commission/State Planning Department	Member Convenor

The supportive technical arm/executive body, which assists the State Land Use Council in all matters of the State Land Utilization Policy, is called as the “State Land Use Committee”. The suggested composition of the State Land Use Committee is as follows:

Chairman of the State Planning Commission/State Planning Department	Chairman
Minister for Relevant Nodal Department to be identified by the State Government	Dy. Chairman
Principal Secretary, Urban Development/Town & Country Planning, State Government	Member

Principal Secretary, Industries/Commerce, State Government	Member
Principal Secretary, Agriculture Department, State Government	Member
Principal Secretary, Environment & Forests Department, State Government	Member
Principal Secretary, Transport Department, State Government	Member
Principal Secretary, Electricity Department, State Government	Member
Principal Secretary, Finance Department, State Government	Member
Principal Secretary, Tourism Department, State Government	Member
Principal Secretary, Rural Development, State Government	Member
Principal Secretary, Revenue Department, State Government	Member Convenor

District Level Set Up:

At District level, a District Land Use Committee will be set up to address district level land utilization aspects including addressing the related issues and conflicts within the District. The composition of the District Land Use Committee is as follows:

Chairman of District Planning Committee	Chairman
District level officers of the Departments of Agriculture, Revenue, Environment and Forest, Industries, Water Resources, Urban Development, Town & Country Planning etc.	Members
Commissioners of the selected ULBs in the District	Members
Reps. of the Panchayats of selected local bodies	Members
District Collector	Member Convenor

Legislative support required

Appropriate legislative support should be provided both by the Central Government as well as State Governments for setting up the institutional structures and for dealing with all matters related to the National Land Utilization Policy.

However, for the purpose of undertaking land use planning in LUZs, for the sectors such as environment, there are existing provisions within the existing legal frameworks in the central laws, for example, the Environmental Protection Act, 1986. The available similar legal provisions for other sectors/LUZs, both at central and state levels should be looked into.

Supportive technical agencies

The Government of India shall identify technical agencies/institutions and provide support for:

- a) Production of data and preparation of land utilisation maps at national

/state/ district levels.

- b) Setting up of the Land Use Information System using satellite imageries, GIS and information communication technology (ICT).
- c) Setting up of land use change monitoring system.
- d) Capacity building of various departments, agencies, institutions and other identified stakeholders engaged in implementation, control, monitoring and evaluation of Land Utilisation Policy and preparation of related maps at various levels, viz. national, states, district and local.

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