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CONVERSION OF LAND USE- A PROCESS CONTINUING

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Introduction

Use to which the land is put is commonly understood definition of the land use. Is it so simple to understand or is there much complexity in understanding the land use and various forces operating in the land use dynamics? If one views land use as a product of interrelationship of man and use of land surface and the various determinants of surface utilization, the complex dynamics of land use are confronted. This complexity can be understood if one consults the Penguin Dictionary of Human Geography that describes the land use as under:

“-- the term land use deals with the spatial aspects of all human activities on the land and with the way in which the land surface is adapted, or could be adapted, to serve human needs. This definition implies that it is the human adaptation of the land surface which is important. Some geographers extend the definition to include types of vegetation as land use categories. A conflict of definition arises, since two distinct concepts are involved; the functional use of land to meet people's need (e.g. trees, houses, crops). Where the two coincide, e.g. residential use/houses, there is no problem, but if they do not there is the possibility of confusion, e.g. trees and moorland can be recognized as a form of cover without establishing whether the land is used for agriculture, forest, recreation or some other purpose. In the strict sense land use should apply to the activity on and not to the appearance of the land surface”¹

This complexity can be ripped open only if the use of land is studied in series over a period of time and the resultant uses are transposed to understand the changes undergone and the causes and effects thereof. This is important for sustainable land use planning, which is generally understood as physical planning or spatial planning as the prerequisite of sustainable environment planning. Probably, the society can not think of ecological balance in absence of green cover which has been a cause of concern of every civilized society to give attention to the vegetal cover i.e. green cover. A number of Non Government Organizations have been formed and environmentalists have emerged on the scene to attach significance to preserve the wildlife and associated green mantle.

A number of Public Interest Litigations showing concerns to the environment have been admitted by various courts. This is another way of showing concern by the law avoiding society seeking enforcement of law for conserving the ecological balance. Studies over the years have given a lot of information on the depletion of green cover.

Grewal (2004) describes the cause and effect of decrease in the green cover as under:

“Rainfall has probably decreased during the last two to three thousand years due to the cutting down of forests and extension of cultivation at the expense of natural vegetation. When the rain fall was heavier, the plant covering was denser and richer”²

It is one of the causes that resulted in the

loss of rains in the regional context. Most of the rivers have dried up with the decreased green cover and resultantly decreased rainfall. Such repercussions of far reaching consequences have been studied and understood by the scholars from time to time and made their observations available to the policy makers. The issue remains debatable that how effectively and seriously these observations were taken for corrective measures and framing policies for the sustainable environment? Given the inseparability of time and space, and close relationship between history and geography there is continuing lack in intertwining the historical findings with the policy framework.

Gosal (2004) has very aptly observed, *“After all, historical events do not take place in the air; their base is always the earth. For proper understanding of history, therefore, the base, that is the earth, must be known closely. The physical earth and the man living on it in their full, multi-dimensional relationships constitute the reality of the earth. There is no doubt that human ingenuity, innovations, technological capabilities, and aspirations are very potent factors in shaping and reshaping places and regions, as also in giving rise to new events, but the physical environmental base has its own role to play”*³

The above observations can be examined in the context of Haryana. This examination can be limited to various enforceable laws in the state to maintain and sustain the land uses as notified by the state government from time to time. Enforcement of use to which the land can be put in the state of Haryana can be examined *per se* and *inter se* the provisions of various legislations in force. The Haryana state, from the law applicability point of view, can be categorised as follows:

1. Haryana Sub-region of National Capital Region,

2. Controlled Areas notified by the Town and Country Planning Department,
3. Areas falling under Special Economic Zones Act, 2005,
4. Areas notified by the Forest Department Haryana,
5. Areas notified for wildlife preservation by the Department of Wildlife Preservation.

1. Haryana Sub-region of National Capital Region

National Capital Region Planning Board Act, 1985, an Act of Parliament, was enacted to constitute the Planning Board for preparation of plan for the development of National Capital region. The objective is to avoid any haphazard development by coordinating and monitoring the implementation of Regional Plan and for evolving harmonized policies for the control of land uses and development of infrastructure in the NCR. Since the Parliament has no power to legislate on the matters listed in the 'State List' of the Constitution of India except as provided in Articles 249 and 250 of the Constitution, therefore in pursuance of provisions of Clause (1) of Article 250 of the Constitution, resolutions were passed by the houses of legislatures of the states of Haryana, Rajasthan and Uttar Pradesh to the effect that matters listed in the Act should be regulated in these states by parliament by law.

This Act has empowered the National Capital Region Planning Board (NCRPB) to; (i) prepare regional and functional plan, (ii) arrange for the preparation of sub-regional plan and project plans by each of the participating states and (iii) coordinate the enforcement and implementation of the regional plan, functional plan, sub-regional plans and project plans.

The regional plan so prepared shall indicate the manner in which the land in the NCR shall be used for carrying out the development or conservation or otherwise.

This plan shall include; (i) the policy in relation to land use and the allocation of land for different uses, (ii) the proposals for major urban pattern, (iii) the proposals for providing suitable economic base for future growth, (iv) the proposals regarding transport and communications including railways and arterial roads, (v) the proposals for supply of drinking water and drainage and (vi) development of priority areas.

The sub-regional plans will be prepared to; (i) identify the areas for specific land uses which are of the regional or sub-regional importance, (ii) develop future urban and major rural settlements, (iii) develop road network up to the district roads, (iv) coordination of traffic and transportation including terminals and (v) prepare proposals for supply of drinking water and drainage.

So far as governing of different land uses is concerned, this Act has the overriding effect notwithstanding anything inconsistent therewith contained in any other law for the time being in force or in any instrument having effect by virtue of any law other than this Act or in any decree order of any court, tribunal or any other authority. The Regional Plan comes into operation immediately after its final publication and no development thereafter in the region can take place which is inconsistent with the provisions of finally published regional plan⁴.

Land Use Pattern in Haryana Sub-Region of NCR : The finally published Regional Plan 2021 of National Capital Region in the Chapter

'Regional Land Use' has given the sub-region-wise distribution of land use (Table 1).

From the above table it is not clear whether the entire municipal area was taken into account or only the built-up area? The Haryana Statistical Abstract 2000-01 (p 50) indicates the urban area of the state as 1052.50 sq km (105200.50 hectares) for the year 1991. There is a difference of 11603.5 hectares between the total built area in the state and within NCR. It could be statistical fallacy as there are large urban concentrations outside the NCR such as Yamuna Nagar-Jagadhari Urban Agglomeration, Ambala Urban Agglomeration, Hisar Urban Agglomeration, Kurukshetra, Karnal, Jind, Sirsa, Bhiwani to name a few.

The Regional Plan 2021, of National Capital Region⁵ has assigned, to the state, the responsibility of preparing the development plans for the controlled areas. This is the flexibility given to the state government to finalize the plans reflecting the aspirations of the local people. As mentioned above about one-third of the state is a part of the National Capital Region that means this part of the state is governed by the Regional Plan, 2021. Despite having published in the Regional Plan, 2021 the provisions of other Acts and notifications continue to operate independent of each other. The Departments of Forests, Environment, Mines and Geology, Wild Life Preservation, Industries for Special Economic Zones, Town and Country Planning, Power and Agriculture continue to operate independently

Table 1

NCR and Haryana Sub-Region of NCR: Distribution of Existing Land Use

Existing Land use in National Capital Region – 1999			Existing land use - Haryana Sub Region 1999	
Category	Area in Hectare	% to total	Area in Hectare	% to total
Built-up	263500	8.71	93597	6.98

Source: Study Report on Urban Sprawl and Land use/Land cover mapping for NCR- NRSA-1999.

without any regard to the Regional Plan 2021 thereby limiting its scope and applicability to urbanization as if it is a document for the Town and Country Planning Department alone.

The Regional Plan-2021 has covered almost all the major uses of land surface including the ground water in its chapter dealing with Environment (pp. 129-32). Since these development strategies and policies have the legal backing, therefore are enforceable by the state government irrespective of the multiplicity of enforcing departments because no development in the region can take place save as per provisions of the Regional Plan or with prior permission of the NCR Board.

In view of the fact that Haryana Sub-Region of NCR has a comprehensive land use plan, the rest of the state constituting two-third of the total area requires similar land use governance. The districts that are outside the NCR Sub-Region are Mahendergarh, Bhiwani, Hisar, Fatehabad, Sirsa, Jind, Kaithal, Karnal, Kurukshetra, Yamunanagar, Ambala and Panchkula.

In these districts, except the areas within Municipal limits, controlled areas notified around these municipal limits by the Town and Country Planning Department, Haryana, forest lands, bird sanctuaries etc. the rest of the land is under no control whatsoever. Land can be put to any non-agricultural use irrespective of its fertility or suitability for agriculture.

2. Controlled Areas Declared by the Town and Country Planning Department

Another important legislation to govern the land uses in the state is the Punjab Scheduled Roads and Controlled Areas Restrictions of Unregulated Development Act, 1963. Section 4 of this Act enables the Government to declare Controlled Area up to any limit (before 2007 it was up to maximum of 8 Kilometers outside the Municipal Limits or

up to 2 Kilometers around an industrial estate, institutional building or housing estate or monument of historic importance)⁶. This Act like NCR Planning Board Act empowers the State Government to prepare and publish the development plan of the Controlled Area and designate the land uses to which the land can be put, with prior permission, to any other use than it existed at the time of declaration of the Controlled Area.

It has been mandated to prepared and publish the Development Plan under the provisions of this Act which shall consists of; (a) map showing the land uses and the buildings existing at the time of declaration of the controlled area and (b) map showing areas reserved for major land uses such as; (i) residential, industrial, commercial and warehousing, (ii) areas reserved for public and community amenities such as civic centers and educational, recreational and social institutions and major open spaces, (iii) roads, railways, airports, treatment of water supply, disposal of drainage and electricity and gas installation, (iv) lands reserved for major green rural belts, (v) areas of the aesthetics, sentimental or historical value and (vi) lands liable to flooding or subsidence.

Another important legislation is the Punjab New Capital (Periphery) Control Act, 1952. This Act also empowers the declaration of the Controlled Area as notified⁷. Since, this Act is primarily focusing on controlling the periphery of Chandigarh, therefore it does not empower the State Government for preparation of comprehensive development plan like the aforesaid legislations.

3. Areas Falling Under Special Economic Zones Act, 2005

The recent most significant enactment of Parliament from the point of view of land use conversion is the Special Economic Zones Act,

2005. This Act has been enacted for the establishment, development and management of the Special Economic Zones⁸ (SEZs) for the promotion of exports and for matters connected therewith or incidental thereto. This Act permits any person, who intends to set up a SEZ, to make a proposal to the State or the Central Government after identifying the area not necessarily the area so identified is in possession of the proponent (Developer). The minimum area requirement for a multi-product SEZ is 1000 hectares. The approval is accorded, in principle, to enable the developer to take further necessary steps for acquiring the land and approaching various agencies for required clearances and to make other arrangements for the SEZ. This approval in principle is valid for one year. However, it can be revalidated. Provisions of this Act have overriding effect on any other Law inconsistent with the provisions of this Act.

Within the scope of this Act a number of significant SEZ proposals have been approved in principle by the government of India, as follows:

- (i) Reliance Haryana SEZ over an area of 25,000 acres of land within NCR,
- (ii) DLF SEZ of 20,000 acres within NCR,
- (iii) Unitech SEZ of 20,000 acres within NCR and
- (iv) DS Constructions SEZ of 20,000 acres within NCR.

There has been opposition against the acquisition of land by the state government for further passing on to the developers. The political parties and organizations have raised their voice against land acquisition by the government for the developers in the state of West Bengal, Haryana, Maharashtra and Uttar Pradesh. Forced by these agitations the government of India is contemplating to put the upper cap on the area limit of the SEZ. The views are expressed to fix this limit to the

maximum of 5000 hectares.

In view of Apex Court's orders, the land under *gair mumkin Pahar*, etc. and other forest lands cannot be put to any other use save as per applicable law on the use of such lands. Therefore, it is obvious that the available land for such SEZs is the agricultural land, fertile or least fertile as the case may be. The impact of this Act is yet to be seen on the ground. However, on account of its overriding effect on other laws and the quantum of area involved, public opinion has started building up against SEZs particularly, in the fertile agricultural regions. These are being viewed more as real estate projects than focusing on promotion of exports from the state and attracting foreign direct investment. In case, these find the larger acceptance of the people as instruments of regional development these will definitely change the landscape from the existing land use agricultural to the built-up environment.

4. Areas Notified by the Forest Department

The important Acts of the Department related to land use are; (i) The Forest Act of India and (ii) The Punjab Land Preservation Act, 1900.

These two Acts are limited to the forest use of land and their associated land uses. The State of Environment Report Haryana, 2006 (pp. 164-168)⁹ indicate that about 80 per cent i.e. 35,13,00 hectares of total geographical area (i.e. 44,21,200 hectares) is under cultivation and 3.5 per cent (i.e. 1,55,910 hectares) is recorded as forest. The present forest cover is 1,559 square kilometers accounting for 6.6 per cent of the total geographical area. The increase in forest cover from 449 square kilometers in 1999 to 520 square kilometers at present has been attributed to agro-forestry adopted by the farmers as an alternative land use.

It is surprising to note that the total geographical area mentioned in the above

report (44,21,200 hectares) is 47200 hectares more than the total geographical area (43,74,000 hectares) given in the Statistical Abstract of Haryana, 2003-04, a publication to the state government. This variation needs to be corrected in the records keeping in view the revenue records where the land holdings of each owner are recorded and counted.

The traditional agricultural practices, which co-existed harmoniously in the past with natural environment, have changed to become exploitative of nature. The forests resources are depleting gradually day by day due to increased biotic pressure both from human and cattle which has led to irreparable destruction of wildlife habitat and damage to the watersheds. The changing life style of new generations has also led to the distaste for forests as natural resources or professions related to natural resources and hence the indigenous knowledge is being lost with the passage of time. Such socio-economic developments have brought about quantitative and qualitative changes in the spatial distribution of forests.

The Environment Department, Haryana has attempted to compile and bring out different zones of natural forest ecosystem as; tree forests, grass land ecosystem, wetlands ecosystem, desert ecosystem and riverine ecosystem. (State of Environment Report, Haryana 2000, pp. 168-170).

5. Wildlife Preservation Act

Another important enactment is the Wildlife Preservation Act. Under the provisions of this Act the areas of wildlife conservation have been notified in Haryana. The important areas notified under this Act are; 2 National Parks and 10 Wildlife Sanctuaries (Table 2).

Two national parks and ten wildlife sanctuaries in Haryana cover an area of

30390.79 hectares which constitute 0.686 per cent of the geographical area of the state. The Kalesar protected area and Abubshehar wildlife sanctuary cover the bulk of the total protected areas. The most area of Abubshehar sanctuary is privately owned agricultural land where not much of regulatory activity is being done.

Concluding Remarks

The state of Haryana needs lands use policy for continuous monitoring of land uses to maintain ecological balance on account of its vulnerability to urbanization. Its location in the National Capital Region and sharing boundaries with the national capital Delhi have put tremendous pressure on the available land resource particularly in the Haryana sub-region of NCR. The vulnerability has been pointed out in the kind of SEZs that have been approved for development over thousands of acres of land. It is therefore, very essential to determine land uses in tandem with ecosystems identified by the Environment department. These must be transposed on the map of soil classification for maintaining ecological balance in the state. Land use determination must be based on the soil characteristics, its productivity suitable to specific type of human activity, prohibited for interaction of man other than maintaining sustainability.

Preparation of land use catalogue should not be only for reference but an enforceable document within the scope of a gamut of aforementioned existing laws. Review of this catalogue every year is equally important for assessing results, adequacy or inadequacy of policy measures or steps taken and to understand the causes of failure of steps taken or success rate of the policy implementation. Such a review will help to take new steps or taking corrective measures if required.

Table 2
Haryana: National Parks and the Wildlife Sanctuaries

Sr.No.	National Park/ Wildlife Sanctuary	Tehsil/ District	Wild animals	Area (acres)
A National Park				
1.	Kalesar National Park	Chhachrauli / Yamunanagar	Leopard, Chital Barking deer, Ghoral	11457
2.	Sultanpur National Park, Wildlife Sanctuary	Gurgaon	Water birds	359.51
B Wildlife Sanctuary				
1.	Bhindawas Sanctuary	Jhajjar	Water birds, Blackbuck, Blue bull, Partridges.	1016.94
2.	Nahar Sanctuary	Kosli (Rewari)	Black buck, Blue bull	522.25
3.	Chhilchhila Sanctuary	Kaithal	Water birds.	71.45
4.	Bir Shikargarh Sanctuary	Kalka (Panchkula)	Chital, Wild boar, Red Jungle Fowl	1896.00
5.	Abubshehar Sanctuary	Dabwali (Sirsa)	Blue bull, Partridges and Black buck.	28492.00
6.	Saraswati Plantation Sanctuary	Guhla-Cheeka Kaithal/ Kurukshetra	Black buck, Hog deer and Wild boar.	11003.00
7.	Khaparwas Sanctuary	Jhajjar	Water birds	204.36
8.	Bir Bara Ban Jind Sanctuary	Jind	Blue bull, Monkeys, Hare, Partridges	1036.00
9.	Kalesar Sanctuary.	Chhachhrauli (Yamunanagar)	Leopard, Chital Sambhar, Wild goat.	13209.00
10.	Morni Sanctuary	Panchkula	As above	5499.65

Source: *The State of Environment Report Haryana, 2006.*

References

1. Goddal, B.C. (1987): *The Penguin Dictionary of Human Geography*, Penguin Book Ltd., London, p.91
2. Grewal, J. S. (2004): "Historical Geography of Punjab", *Journal of Punjab Studies*, Vol. 11, No. 1, p. 3.
3. Gosal, G. S. (2004): "Physical Geography of the Punjab", *Journal of Punjab Studies*, Vol. 11, No. 1, p. 19.
4. *National Capital Region Planning Board Act, 1985.*
5. *Regional Plan 2021. National Capital Region.*
6. *The Punjab Scheduled Roads and Controlled Areas Restriction of Unregulated Development Act, 1963,*
7. *The Punjab New Capital Periphery Control Act, 1952.*
8. *Special Economic Zone Act, 2005. An act of Parliament.*
9. *State of the Environment Report, Haryana 2006, Environment Department Haryana.*

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