

Salient Features of Land use in Saran District

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Saran district is the heart of Saran division. It is an important district from the point of view of the study of the socio-economic conditions of North Bihar. It is located between 25° 20' N and 26° 13' N and 84° 24' E, 85° 15' E longitudes. It constitutes 2.7% and 3.8% area and population of Bihar respectively. It means that this district is an example of man land ratio. Population is zooming and per capita land resource is declining rapidly. The study area's more than 88% population live on cultivation and proportion of cultivated land is going down uninterruptedly. In such an awkward situation study of land use in the study area seems to be the most important.

Utilization of Land:

Land resources form the most important natural wealth of a country and their proper utilization is a matter of utmost concern to its people. The utilization of the land according to its use capability ensures that this resource is utilised to the best advantage. Its improper use leads to wastage and can lead to progressive deterioration and loss of productivity of this vital resource.

One of the most significant features of land use in Saran is the large proportion of areas suitable for agriculture that has already been brought under cultivation.

Classification of Land"

Classification of land is a process which assigns each body or tract of land in an area to its proper class in a system of classes. The classes in the system are defined in terms of the qualities or characteristics with which the classification is concerned.

In Saran the classification of land has had its roots in agricultural statistics. Till 1950, the land in Saran was broadly classified into five categories : (i) Area under forests, (ii) Area not available for cultivation, (iii) Uncultivated lands excluding current fallow, (iv) Area under current fallows and (v) Net area sown. But then it was realized that such a classification did not give a clear picture of the actual areas under different categories of land use, required for agricultural planning. Hence, a reclassification was adopted from March 1950. Under it, land in Saran is now classified under nine different categories, viz., (i) Forests, (ii) Barren and un-culturable land, (iii) Land put to non-agricultural uses, (iv) Miscellaneous tree crops and groves not included in the net area; (vii) Current fallows : (viii) Other fallows; and (ix) Net area sown.

Table No. 1.1**Land use Classification of Saran District (hectare)**

Sl.No.	Categories	2000-01	2005-06	2010-11	2-15-16
1	Forests	-	-	-	-
2	Barren & Uncultivable land	2336	2336	2336	2330
3	Land area put to non-agricultural use	69488	969646	69697	9735
4	Water bodies	15761	15749	15747	15744
5	Culturable waste land	524	520	512	515
6	Permanent pasture and grazing land	1454	1452	1448	1442
7	Land under miscellaneous trees crops & groves	22472	22600	22652	22693
8	Fallow land	3460	3442	3430	3413
9	Current fallow	12317	9988	15561	11766
10	Total Uncultivable land	127812	125733	128385	127638
11	Net areas sown	225686	227765	225113	225860
12	Total cropped area	315106	329594	317083	319952
13	Total area of Saran district	353498	353498	353498	353498
14	Total area of Bihar	9359568	4359568	9359568	9359568

Source: Directorate of Economics and Statistics, Department of Planning and Development, Government of Bihar, Patna, 2017-18.

From observation of table 1.1, we come to know that land use trend in Saran District more or less follows the general trend shown by other districts of North Bihar. Broadly speaking, the entire geographical area of the district is 3.53 lakh hectares which constitute about 3.65% of the total area of Bihar. Saran district has more cultivable area than Bihar. Out of total net sown area (56.6 lakh hectgares) of Bihar 60.5% area is devoted to net area sown, that is very very high in comparison with India (47%) . But Saran district has about 72% net sown area. It means that this district has more geographical area under cropping. If current fallow and other fallow land are brought together with net sown area, than the percentage of cultivable land may go up to 84% of the total geographical area of the district. It shows that this district is in ellent position from the point of view of practicing agriculture.

Another interesting point is that area under current fallow shows changing pattern. Between 2000-01 to 2015-16 , sometimes current fallow comes down and sometimes goes up. In 2000-01 area under current fallow was 12317 hectares which went up to 15561 in 2015-16 and again came down to 11766 hectares in 2010-11 . This trend is mainly caused by uneven distribution and receipt of rainfall in the region in different years. It clearly indicates that this district has not been able to develop its irrigational potential.

Another interesting point is that area under non-agricultural uses has been growing in the context of Bihar, but its relative share in the general land use of the district is not going down substantially. It means that this district lags behind many other districts of Bihar where developmental work is more pronounced than this district.

Further it is seen that this district is almost devoid of natural vegetation . For healthy environment and eco-system forest cover must be at least 33% . For an agrarian region role of forest is more important because it is very very necessary for alluring incidence of rainfall. From annual rainfall chart of different years show that the amount of annual receipt of rainfall is going down more abruptly that is an alarming signal for our economy.

Table No. 1.2

Trend of Land use in Saran Distirct (2015-16)

Sl.No.	Category	Area (ha)	Percentage of total Areas
1	Forest	Negligible	Negligible
2	Barren and Uncultivable land	2330	0.38
3	Land area put to non-agriculturale use	69735	19.3
4	Water bodies	15744	4.5
5	Culturable waste land	Negligible	Negligible
6	Permanent posure and grazing	1442	0.24
7	Land under miscellaneous uses	22693	6.5
8	Fallow Land	3413	0.97
9	Current fallow	11766	3.3
10	Total unculturable land	127638	36.01
11	Area net sown	225860	64.2
12	Total cropped area	319952	-
13	Total area of Saran district	353498	-
14	Total are of Bihar	9359568	

Source: Bihar: Facts and Figures, GOB, Patna

Analysis of table 1.2 reveals that this district is thoroughly an agrarian district. More than 72% geographical area is under net cultivation. With the help of irrigation area sown more than once in an agricultural calendar year is 36.5% of the total net sown area. With ever galloping population there must be improvement under area sown more than once. This can be done by proper planning of agricultural activities with the help of scientific utilization and management of water resources which are extremely tremendous.

Land Use Planning:

There has been no rational planning of land use in Saran. The increasing pressure of population on land necessitates the need for careful planning of land resources in the country.

Land presents an extremely complex pattern of different types of land-use. In the older settled countries like Great Britain, China, Japan and madhubani, this complex land use pattern is the result of centuries of human settlement and development . It represents the integration of (i) physical factors (such as elevation, slope, drainage, soil, rainfall and temperature); (ii) historical factors (such as ownership of land); (iii) social factors (such as accessibility, i.e. availability of transport and marketing facilities; usage and customs, idea of self-sufficiency on the part of the farmer, the traditional way of life, aversion to change, ability, desire and capacity to improve conditions, family type where units are small, farm labour is not common-in large sized holdings it is necessary, the length of occupation of the area and density of population); (iv) economic factors (such as working costs, agricultural prices, economic rate of profit, and the state of economic and commercial development). But in sparsely populated countries as in the grasslands of Africa, South America or parts of Canada, U.S.A. and Australia- nature is almost entirely responsible for the existing use or misuse of land. In such countries it is the result of a few decades of trial and error.

For land use, the first essential is to map out the location of such areas as could be available for cultivation or otherwise and ascertain their extent, determine their most profitable use and assess the measures and expenditure required for their exploitation. Two types of maps are needed for proper land use, viz., population distribution map and land use map.

Principles of Land-use Planning:

In land use planning there are three cardinal principles:

(i) The planners' task is to determine the optimum use of every acre of land in the national interest. There is a great need for integration between essential uses of land. Rival claimants must be balanced for various interests.

(ii) Multiple use of land is both desirable and possible depending on the local socio-economic conditions and must, therefore, be used for more than one purpose where possible.

(iii) there ought not to be any waste of land, i.e, there should be no land which is not serving some useful purpose to the community, as there is a possible use of every bit of land in a crowded country.

The following principles should govern land-use planning:

- The suitability of land for various uses, such as determined on the basis of agro-climatic conditions, should be taken into consideration.
- Over-all and regional balances between various categories and sub-categories of land utilization should be maintained, i.e., forest area should be reserved for climatic and economic reasons (such as attracting rainfall, checking floods, and providing fuel-wood and preventing soil erosion); pastures for increased cattle-rearing and milk production; fallows for gaining lost fertility- all these must be given due consideration.
- Economic factors should favour the land use system, i.e., changes in demand for a commodity should be reflected in the pattern of land-use; similarly, changes in supply of inputs (quality, quantity and prices), labour supply, marketing and transport, management, processing facilities etc/., should also be taken into consideration while determining efficient land use.
- The land-use system should be flexible and adjustable to developments in technology such as the evolution of drought or disease resistant crops, labour saving devices, etc.
- The classes of land most suited for improvement should be determined for each individual farm. Types of equipment and methods most successfully used and the costs and benefits of developing and improving land should be evaluated.
- For better land utilization, land available to the actual tillers must be productive and adequate in area, with sufficient moisture in it, and cultivators capable of using appropriate farm practices and conservation measures.
- In order to bring about improvement in land utilisation, it is that the farmers must be educated into the latest knowledge of farm management.
- The following modifying factors should be taken into consideration :
 - ❖ Institutional and socio-cultural setup, land tenures, etc.
 - ❖ Regional balances in the economy, especially in the rural areas which is not well integrated.
 - ❖ Improvement of national health through provision of land for producing more of vegetables, fruits, milk and fish etc.
 - ❖ Self-sufficiency in food and other raw materials both for the industry and exports to earn foreign exchange.

The ideal use should be based on multiple criteria and dynamic consideration (rather than being guided by any one consideration) and should give the community an optimum

allocation of overtime of land between various categories and uses and also an optimum combination of land with other inputs of production to yield the need products in required quantities and of required quality at the lowest cost.

Conclusion:

In region the physical supply of land is very limited, Hence, more land cannot be brought under the plough. Increases in agricultural production, to meet the needs of the country, can be obtained through increasing the economic supply of land.

For this emphasis will have to be placed on the large yield per hectare. For this, detailed knowledge of the soils of each plot is essential. Soil maps of the area should be drawn, giving characteristics of soils followed by farm plans. Such plans should include all -round package programme, like lining of acid soils, and soil and water conservation measures,

The greatest response to the stimuli to reclaim cultivable waste-land came from the extension of irrigation, needs of growing population and the potentials of cultivable wasteland from better arable land in terms of productivity.

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