

A BRIEF STUDY OF CHANGING LAND UTILIZATION PATTERN IN INDIA: A CASE STUDY OF NALANDA DISTRICT

Sri Rajesh Kumar,

Research Scholar, Dept. of Geography,
Magadh University, Bodh Gaya, Bihar

Dr. Ramawtar Yadav,

Associate Professor, Dept. of Geography,
Magadh University, Bodh Gaya, Bihar

Abstract

The present paper is an attempt to analyse the changes that have taken place in land utilization pattern in India from 1991-92 to 2014-2015. The total land of India is 3287263 Sq. km out of which we have data of 92.9% Land utilization. From which 46.04% of this land is used under the agricultural activities. The study reveals that the Nalanda District agriculturally once of the most developed regions of the south Gangatic Plain of the state. The plain and fertile soil, availability of water. Commercial of rich farmer and educational people of the main bacteria since long. Kharif (R.C.), Rabi (wheat, Pusse, Corio, Moong, Vegetables etc.) a main product and these sustain the socio economic status of the area. Almost all land are under intensive use. There is no wasteland or even current fallow land is intensive cultivation is in practices. Where double and triple cropping pattern is most common. Production of C. Road and cash crops are done and several agro based industries have been developed, such as 10, man flour mills, Agricultural machine life, therefore, thorny, harvesters etc. Oil mill, are the main Agro based Industries which boast of the socio-economic candidates of the people sufficient electricity and transport system play. In important role supply of chemical fertilizer and lack of Agro cultivar which need to be failed with the help of government agencies.

Keywords: Land utilization pattern, Agricultural crops.

Introduction

In all resources land is a limited and most important basic natural resource. The layout or arrangement of the uses of the land is known as "land utilization pattern". Land utilization is a multidisciplinary area and is a prerequisite resource base for all activities of society. It describes the various ways in which human beings make use and manage the land and its resources. Land utilization pattern refers to the spatial distribution of human activities, in other words what kind of activities located where? Secondly we discussed cropping pattern, it refers to the type of crops raised and the proportion of area under various crops at a point of time. The land may be used for agriculture, forest, pasture etc. Land utilization is determined by many factors like relief features, climate, soil, and density of population, technical and socio-economic factors. Dominant part of land is used for agriculture which is one of the oldest economic activities of man competing demands for its effective and proper use. Land utilization is a major issue of global environment change. There is subsequent need of system of land utilization. The analysis of Land utilization is an important aspect of geographical studies. At the present, Land utilization is continuously changing as a result of changes in pattern and magnitude of human activities. So it becomes a matter of interest for agricultural geographers as to what extent the Land utilization pattern has been lateral. Therefore, the present study analyzes the change in Land utilization over time and space.

Agricultural Land utilization indicated the surface assemblage of anthropocentric and nature element on the earth surface. According to Dafries and Eshleman (2014). There is a great need of monitoring the Land utilization in the recent time due to its immense impact on the Global environment. Most of the investigation is based on the consequence of the Land utilization change natural process. It has been changed due to the land use, the present population growth, highly ambitious person, demand of food and supply and nature of climate commercial

persons or infrastructure development in this region. The recent accelerated population growth has triggered unplain increased in Land utilization in term of build up are and cultivable land of the lost of forest, water land and water bodies. (Bulf at ac 2015) The drastic change in the agricultural Land utilization has imposed sever threat on the natural need of global concern for proper plan at Local and large scale (percentage (Butt et al 2015) Monitoring the Land utilization at watershed level gives better due to the geomorphic homogeneity (Buff et al 2015).

Primary or secondary data provide a reliable of base in studying Agricultural Land utilization change. Primary sources and secondary sources of good and easy source of data of interpreting the Land utilization change due to their continuous arability for longer interval of time. Indeed “No life of worked be continuance upon this Earth, where if not for socio upon this Earth, where if not for socio (white and Ranner). Nalanda there is great role of Geomorphology, climate, Soil, Infrastructural development life Road ways, Railways, Urban, Education) etc. human efforts on Land utilization.

Objective of Study

The objective of the prodding paper is to show in the change of Land utilization Pattern due to population bomb and the use of high technology in agriculture to sustain Socio economic condition of Nalanda District. Mainly this area ID agricultural dominant where 80%. Population the total population depend upon Agriculture directly or indirectly. The study area mainly related on agriculture Land utilization change in Nalanda District.

Classification of Land utilization

Classification of Land utilization is the systematic arrangement of land on the basis of certain similar characteristics mainly to identity and understands their fundamental utilities intelligently and effectively. The Land utilization pattern is complex and dynamic. There are mainly five types of land utilization in India. However, further detailing the existing categories formed the new categories. 1. Forest Area 2. Land not available for cultivation 3. Uncultivable land 4. Fallow land 5. Net area shown.

Research Methodology

For the present study data set compiled from various secondary sources since independence are used to study the levels, trends and differentials for India and its states. It includes information on population growth, urbanization, and Land utilization pattern, socioeconomic and agricultural variables. Most of the demographic and socioeconomic data are taken from Census publications (Registrar General of India) for different time periods under study. The Land utilization classification data are compiled from various reports of the Indian Ministry of Agriculture and forest data are compiled from various reports published by Indian Ministry of Environment and Forests.

Study Area

Nalanda District is situated in the southern part of the Ganga plain in South Bihar which have district geographical personality. It extends to from 24. 48' to 25.28' North Latitude and 85.11' to 85'11' to 85'-5N east longitude. It cover an area of 2370sq km with a population of 2872523 (2011) persons. The area is bounded by Patna District in the North Nuclear and Gay District in the south shephpyra and in the Jeharaboal in the west.

The study area is & divided into following regions:

- Rajgir Lilly Areas and it's our linear.
- The high level surface.
- The law level surface

Interpretation and Analysis of Change in Land utilization

Table-1

Land utilization of Nalanda District has many changes between 1991-92 and 2014-15.

Land Use	Bihar %	Area in cat Hect.	1991-92 %	2014-15 %	Changing %
Permanent method	2	-	0.01	-	-
Garden	2.6	460.31	0.08	0.5	0.42
Fall low Land	1.3	-	0.13	0.1	-0.03
Current F. Land	9.2	3920.32	6.88	0	10.69
Non Ag Land	43	114529.05	19.53	32.2	10.69
Net sown Area	57	420031.57	71.74	67.5	-4.24
Forest	6.64	9613.92	1.64	1.98	-0.34
Custarep wast other than palaced land	-	783.55	0.02	-	-

The above table shows 0.01% per nemlpastare in 1991-92 and it Id 0.0% in 2014-15. In gardening 0.0r% in 1991-92 and it become 0.5% in 1991-92 and it becomes 0.5% in 2014-15. Between there years 0.42%. Increased in gardening, follow land 0.13% in 1991, which is induced in 0.1% in 2014-15. Net sown area of Nalanda district is 79.7% in 1991-92 and 67.7% in 2012 and between fluseperiod. Non-agriculture Land in Nalanda District 19.53% in 1991-92 it uncreaded 30.2% in 2014-15. If 10.69% in non agricultural area in Nalanda district forest Land is 1.6% in 1991-92 and 1.98 in 2013-14. Forest Land is increased 0.03% between 1991-92 and 2014-15.

Changing Scenario of Land utilization

Change is her nile of nature, the land it change of Nalanda district iD not them exception of in Land utilization of Nalanda distance changed time to time and this change has been sean in three ways. (i) Ancient time before 1966-69 (ii) 1990-91 to (iii) from 1991 to time now.

In the pan period under kharif crop (Bharaj and Aghani was famous as ragi, Tulbutia Maiza, Tice, Kurthi, Paddey, Sugar Cane etc. This crop has beard continued up to 1966, 1996-67 to 1990-91 middle age: After Green Revolution (Bhodai Crops-Gagi, Tulbuseda Maize, Kurthi and had bead. creased, continuously and paddy, wheat pulse, has been and grama paddy in tice 1990-91.

From 1990-90 the Lagod cost pattern has been changed agricultural land has been decreased and Non Agricultural Land had laze incr and day to day but due to infrastructural dev. The ct production has been increased. Under mixed Economy Agriculture cultural Land utilizationd has been changes in fisheries, dairy farming and murgi farm noul always in whole Nalanda District.

Pattern of Agriculture

Nalanda District is the lap of agriculture fertile land. The use of modern technic and infrastructure development in Agriculture or population pressure have completed the farmer to change the cropping pattern in this district. So many traditional crops Bhadai and Agrani has gone life Ragi, Tulbutia Mecca, Tile, en has gone from this area in place of these crops under Bhadri and Aghari has taken place kharif crops under kharif paddy is dominant crop in the whole area of the district.

Under Garma crops moong and vegetable crops has taken place. The farmers of this district has grown different crops also grow like onion, betel, flowers, etc, under commercial crops. Still ad a main crops of the district that is grown in the whole district is Under kharif (paddy), under (Rabi under kharif (paddy), under (rabi, wheats, and pul. These figure man crop available in table, agricultural crops production and productivities of important comocodities in Nalanda District from 2010 to 2015.

Table-2

Production and Productivity and Important Commodities in Nalanda District

S. No.	Name of the Commodity	2010			2011			2012			2013			2014			2015		
		A	P	Y	A	P	Y	A	P	Y	A	P	Y	A	P	Y	A	P	Y
1	Paddy	130000	3406000	26.2	128000	3456000	27	128000	3520000	27.5	126000	3843000	30.5	130000	4238000	32.6	136000	44333600	32.6
2	Wheat	93000	2077620	22.34	92000	2024000	22	870000	1948800	22.4	92000	2410400	26.2	93500	2552550	27.3	86500	2361450	27.3
3	Pulses	44060	744614	16.9	42050	668595	15.9	44600	722520	16.2	44200	724880	16.4	45400	472160	10.4	43500	452400	10.4
	A-Area in '000' ha	P- Production '000'			Y-Yield (productivity) in Kgs./ha.														

The above said data largely shows that the area has been fluctuated time to time under than paddy crops but hectare production has been increased where the production of paddy in per hectare was 26.2 kg in 2010 increased 27 Hect. In 2011, 27.5 kg/hect. in 2012, 30.5 in 2013, 32.6 kg/hect in 2014 and 32.6 kg/ hect. in 2015. The data of pulse is not satisfactory from 2010 to 2015 due to decrease of food /hect area under pulse has been decreased and Geographical condition of the pulse is also not suitable for the production of pulse it is clear from the above said table under pulse crops where in 2010. The production of pulse is in hect 16.9.

Discussion

The collection of Land utilization data in India begins at the village level. The land utilization or Land utilization statistics formed part of the agricultural statistics and the source for these data is the Ministry of Agriculture, which, however, collects primary data from individual state Authorities. The technical Committee on Co-ordination of Agricultural Statistics, set up in 1948 by the Ministry of Food & Agriculture, recommended a nine-fold land-use classification and also recommended standard concepts and definitions for all the states to follow for better comparability and comprehension.

Conclusion

India is the only country in the world which has maximum land under this category of its total land. Net sown area is the land which is being actively filled for rising of crops. The net area sown is the actual area under crops counting areas sown more than once in the same years only once. Net area sown represents the extent of the cultivated area actually sown during the agricultural year. It may be reffered to as net cropped area also. 41.77% of the total land is covered under net shown area during the period of 1950-51 while in 2014-2015 it became 46.07%.

It is concluded that the Land utilization of Nalanda district has been changed time to time due to Geographical condition, human nature, demand of food, population boom modern technique, infrastructure boom Modern technique, Infrastructural development and Non Agricultural development as Reneg, Road ways, Industries, Institutional development etc. So there is need of proper seed Irrigation facility crop decades according to nature though sustainable development has been going on.

References

- Kumar Arun (2017). Publish Ph.D. thesis impact infrastructure development in Nalanda District chapt-5 page No 127 to 157.
- Proasad R.C. (1983). Bihar a series of India the land and the people National book trust new Delhi pp 98.98.
- Singh R. L. (1971). A regional Large Silver Jubilee Publication National Geographical Society of India Varanasi P 248.
- Prof. Naxim (2002). Map pattern of Land utilization irrigation and Agriculture in koshi plain Bihar volume 6 Geographical perspective page n. 55.60.

- Kumari Draciptti (2005). “Women Agricultural and Development, A case study of Nalanda District. The social profile vol-12 no /Junce pp-47 to 53.
- Mala kanchan (2009). Land utilization of islamplite A Geographical study, Geographical perspective V- 10 year 2009 pp-105 to 110.
- Kumar Arun (2017). Changes in Land utilization Pattern: A Case Study of Nalanda District, JETIR January 2017, Volume 4, Issue 1.
- Ahmad, N., Sinha, D.K., K.M.Singh (2018). Changes in Land utilization Pattern and Factors Responsible for Variations in Current Fallow Land in Bihar, India, Agricultural Research Communication Centre, Vol-52, No.3,PP236-242.
- Malik, J. (2012). Changing Landuse Pattern in Haryana, International Journal of Computing and Corporate Research, Vol-2, No.2
- Changing Land utilization Pattern in Haryana: A Spatio-Temporal Study, Pooja Rani
- Morepatil , K. S. (1995), “Studies in Agricultural Landuse”, Himalay Publishing House, Bombay, pp II.
- Mohammad Noor (1973), “A Study in Agricultural Land utilization (1951- 1970)”, Geographical Review of India, Vol. XXXV, No. 3, Pp 277-288.