

North Asian International Research Journal Consortium

*North Asian International Research Journal
Of
Multidisciplinary*

Chief Editor

Dr. Nisar Hussain Malik



Publisher

Dr. Bilal Ahmad Malik

Associate Editor

Dr. Nagendra Mani Trpathi

Honorary

Dr. Ashak Hussain Malik

NAIRJC JOURNAL PUBLICATION

North Asian
International
Research Journal Consortium



Welcome to NAIRJC

ISSN NO: 2454 - 2326

North Asian International Research Journal is a multidisciplinary research journal, published monthly in English, Hindi, Urdu all research papers submitted to the journal will be double-blind peer reviewed referred by members of the editorial board. Readers will include investigator in Universities, Research Institutes Government and Industry with research interest in the general subjects

Editorial Board

J.Anil Kumar Head Geography University of Thirvanathpuram	Sanjuket Das Head Economics Samplpur University	Adgaonkar Ganesh Dept. of Commerce, B.S.A.U Aruganbad
Kiran Mishra Dept. of English,Ranchi University, Jharkhand	Somanath Reddy Dept. of Social Work, Gulbarga University.	Rajpal Choudhary Dept. Govt. Engg. College Bikaner Rajasthan
R.D. Sharma Head Commerce & Management Jammu University	R.P. Pandday Head Education Dr. C.V.Raman University	Moinuddin Khan Dept. of Botany SinghaniyaUniversity Rajasthan.
Manish Mishra Dept. of Engg, United College Ald.UPTU Lucknow	K.M Bhandarkar Praful Patel College of Education, Gondia	Ravi Kumar Pandey Director, H.I.M.T, Allahabad
Tihar Pandit Dept. of Environmental Science, University of Kashmir.	Simnani Dept. of Political Science, Govt. Degree College Pulwama, University of Kashmir.	Ashok D. Wagh Head PG. Dept. of Accountancy, B.N.N.College, Bhiwandi, Thane, Maharashtra.
Neelam Yaday Head Exam. Mat.K..M .Patel College Thakurli (E), Thane, Maharashtra	Nisar Hussain Dept. of Medicine A.I. Medical College (U.P) Kanpur University	M.C.P. Singh Head Information Technology Dr C.V. Rama University
Ashak Hussain Head Pol-Science G.B, PG College Ald. Kanpur University	Khagendra Nath Sethi Head Dept. of History Sambalpur University.	Rama Singh Dept. of Political Science A.K.D College, Ald.University of Allahabad

Address: - Dr. Ashak Hussain Malik House No. 221 Gangoo, Pulwama, Jammu and Kashmir, India - 192301, Cell: 09086405302, 09906662570, Ph. No: 01933-212815,

Email: nairjc5@gmail.com, info@nairjc.com Website: www.nairjc.com



A GEOGRAPHICAL ANALYSIS OF CHANGING AGRICULTURAL LANDUSE PATTERN IN MAN TAHSIL OF SATARA DISTRICT (MAHARASHTRA)

DR.T.P.SHINDE*

*Assistant Professor, Department of Geography, Mudhoji College, Phaltan (Maharashtra).

ABSTRACT:

Land use mapping is important for evolution, management and conservation of natural resources of an area. Land use/land cover inventories form essential component in land resources evolution and environmental studies (NRSA). There are considerable regional variations in the general land use of area because of land form diversities and rainfall distribution in the study region. It is essential to shift from generalities to particularities in the study region, where agriculture is the only means of livelihood for majority of the people. Such studies are fundamental for future planning. Studies on land use pattern have received a good deal of attention from Indian geographers in the past and continue to draw their attention..In this paper an attempt has been made to analyse the Agricultural land use pattern at micro level in Man Tahsil of Satara District. This study is based on secondary data.

KEYWORDS: Land use pattern, Irrigation, Technological and Organization.

INTRODUCTION:

There are considerable regional variations in the general land use of area because of land form diversities and rainfall distribution in the study region. It is essential to shift from generalities to particularities in the study region, where agriculture is the only means of livelihood for majority of the people. Such studies are fundamental for future planning. Studies on land use pattern have received a good deal of attention from Indian geographers in the past and continue to draw their attention. Presently the patterns are being minutely investigated at the regional or micro regional rather than at the national level. In the view of the recent extension of irrigation and other facilities, the North-Western India and some parts of South-India have received comparatively more attention from the research works. In Uttar Pradesh and Bihar, research publications on this aspect of agriculture appear to be more numerous than in other part of the country. This is because the abundance of agricultural resources as well as their various uses in the region is facilitated by congenial environment and capability of the people to adopt themselves to changes in the environmental determinants. Indian geographers have long been attracted to study the problems of land use in the country with a view to finding out ways and means for scientific utilization of land. Such studies range from inventories of land use surveys to isolated topical or regional descriptive accounts of land use variations both in space and time. A rational assessment of land and its scientific utilization has become very important. It is possible only if the whole complex of land use is studied at the district or tahsil or even village level by taking into account the local physical and socio- economic conditions (Ali Mohmmmed, 1978). Therefore, scientific regional, intensive and proper use of every parcel of land has become essential. Lands' planning on micro-level, based on land use surveys is the first step in putting our lands to the maximum use. The



nature and intensity of land use is closely related to the technology adopted by man. Extension of agricultural land with the help of technology may cause considerable changes in land use. In the present Paper an attempt has been made to analyse the pattern of agricultural general land use during the period of 1991 to 2011. Agricultural land use pattern at micro level in Man Tahsil of Satara District. This study is based on secondary data.

THE STUDY AREA:

Man Tahsil covering the part of the Man river basin is one of the economically prosperous Tahsils of Satara district in southern Maharashtra. It lies between $17^{\circ}15'$ north to $18^{\circ}11'$ North latitude and $73^{\circ}33'$ east to $74^{\circ}54'$ East longitude. The total geographical area of the tahsil is 1507 sq. km. situated between the Mahimangad range and the main Mahadeo range, the Man valley has relief forms similar to those of the Yerala River. To the south-west it has the eroded scarp face of the Mahimangad range and northwards the plateau edge, with occasional heights, drops into the lower much eroded 'badland' topography of the Sangola region in the Sholapur district.

The proposed project area falls under drought prone area zone of southern part of Maharashtra. The average annual rainfall of Tahsil is 465 to 500 mm. the highest intensity of rainfall during the last ten years is 60 mm/hr and the highest rainfall in 24 hours during last ten years is 150mm. The area receives all of its precipitation from south-west and northeast monsoon. According to 2011 Census, the area has total population of 1, 99,598 and out of these, 1, 00,066 are males and 99,532 are females. Man Tahsil. Dahivadi is the administrative head quarter of this Tahsil (Fig.-1).

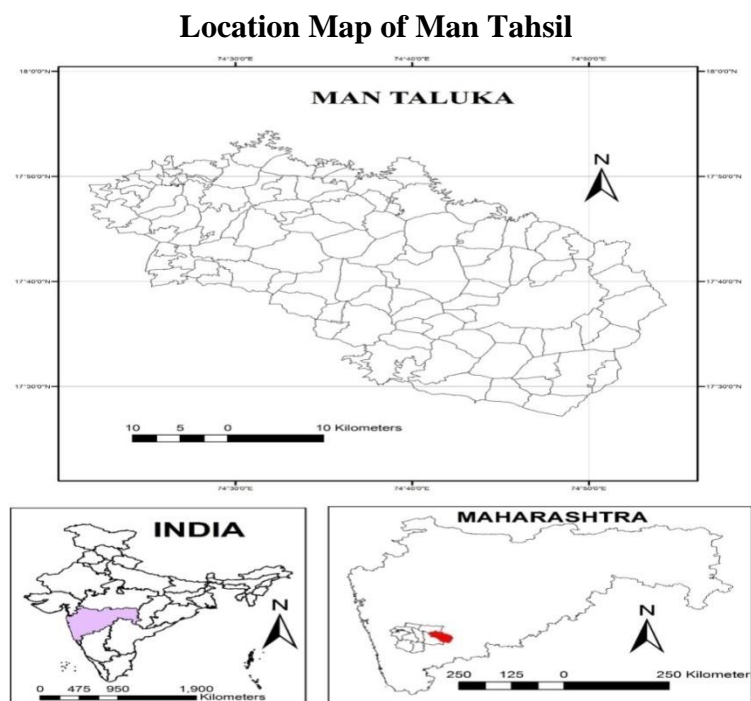


Fig: 1

OBJECTIVES:

The main objectives of the study to analyse the existing land use pattern between the period 1991 to 2011.

SELECTION OF THE PROBLEM:

Today the study of land use in India has become very vital in order to search ways for scientific cultivation of land to increase the food production. The study of land use is important not only in agriculturally dominated, over populated developing regions but throughout the world because of its relationship with different human phenomena. Its importance also increased during the population pressure and decreasing man and land ratio, increasing demand for food and raw materials and the need for optimum utilization of land in an integrated manner has assumed greater relevance. Therefore, scientific regional, intensive and proper use of every parcel of land has become essential. Lands' planning on micro-level, based on land use surveys is the first step in putting our lands to the maximum use. The nature and intensity of land use is closely related to the technology adopted by man. Extension of agricultural land with the help of technology may cause considerable changes in land use.

DATA BASE AND METHODOLOGY:

The present study is based on secondary data collected through District Statistical Office, Department of Agriculture Satara District, Season and Crop Reports published by the department of Agriculture (1990-91 to 2000-01), Socio Economic Abstract 1982, 1992, 2002, 2012 District census and hand book, Gazetteer Agricultural epitomes, Agricultural statistical information Maharashtra state etc. were also scanned for getting relevant information for the present investigation, district is selected in general and tahsil in particular.

CLASSIFICATION OF LAND USE

After study of the meaning of land use, it is essential to deal with classification of land use. A Land use classification is the systematic arrangement of land on the basis of certain similar characteristics mainly to identify and understand their fundamental utilities intelligently and effectively. The land use pattern is complex and dynamic. The present pattern of land use is the result of long continued operations of the whole range of environmental factors but modified study of land utilization in China concludes from a survey of 16786 farms in 168 localities of eight agricultural regions that before agricultural China there can be no great increase in account of farm land. He has given seven types of land utilization of China. The land pattern indicates the spatiotemporal sequence of area under different uses. It also indicates that net available land for cultivation which is an important factor since it is the base for agricultural planning (Arsud, 2000). The international geographical classification of world land use along with colour scheme is mainly suited to local condition. The classification is as follows. World land use survey was drawn up under the auspices of UNESCO.



Some land is for a specific use depending mostly on the physical characteristics of land to its suitability for particular use is related. Five major categories of land use are noted in the season and crop report for Maharashtra state which are,

1. Area under forest.
2. Land not available for cultivation including.
 - i) Barren and uncultivated land. ii) Land put to non-agricultural uses.
3. Other pastures and grazing land including.
 - i) Cultivable waste land.
 - ii) Permanent pasture and grazing land.
 - iii) Land under miscellaneous tree crops and groves.
4. Fallow lands including
 - i) Current fallow. ii) Other fallow.
5. Cropped area including.
 - i) Net sown area (NSA). ii) Area has sown more than once. iii). Gross cropped area (GCA).

Census of India has classified land utilization in nine different categories, but the present study has been grouped into five major land use categories as the percentage of area under individual categories is relatively in significant. On the basis of the statistical data abstracted from the sources referred of Satara district may be divided into five major land use categories.

1. Area under forest
2. Area not available for cultivation.
3. Other uncultivated land excluding fallow land
4. Fallow land
5. Net sown area, (area under other categories are negligible)

Table-1: Man Tahsil Temporal Variation in Land Use Pattern
(Area in hectares)

Sr. No.	Land use Types	1991	2001	2011
1	Net sown area	51200 (33.95)	54077 (35.86)	55851 (37.03)
2	Area not available for cultivation	33300 (22.08)	33268 (22.06)	33000 (21.88)
3	Cultivable waste	27587 (18.29)	25971 (17.22)	20956 (13.89)
4	Fallow land	25700 (17.62)	24517 (16.27)	28026 (18.61)
5	Area under forest	13000 (8.62)	12954 (8.59)	12954 (8.59)
	Total	150787 (100)	150787 (100)	150787 (100)

Source: I) Socio-economic Abstract, Satara District (1991 to 2011)

Temporal variation is the change in general land use in a given period of time. This temporal variation is a result of changes in vivid inputs. The general land use was studied for Thirty years (1991-2011) in order to find out general land use change (Table-1). In 1991, total net sown area in Man tahsil was 33.95percent. After Thirty years there is increase in total net sown area is 3.08 percent (37.03 percent) in 2011. The lowest net sown area during study period was identified in 1991 accounting 33.95percent while the highest net sown area was recorded in 2011 (37.03percent). Land not available for cultivation is shown up and down during study period in study region. Initially, it was recorded 22.08 percent in 1991 and suddenly further decreased up to 0.02 (21.08). in 2011. There are fluctuations in land not available for cultivation. The category includes barren and uncultivable land. The overall percent of land not available for cultivation varies from 26.91 to 32.5percent.

CONCLUSION:

The Man tahsil has been characterized by the spatial variations in the physical factors which influence the development of rain water potential. Climatically the study region is hot and dry throughout the year except July to October. During this period, relative humidity is high. Rainfall occurs during short spells of high intensity. Because of such intensities and short duration of rain, most of the rain falling on the surface tends to flow away rapidly, leaving very little for the recharge of groundwater. Temporal variation is the change in general land use in a given period of time. This temporal variation is a result of changes in vivid inputs. The general land use was studied for Thirty years (1991-2011) in order to find out general land use change. (Table: 1). In 1991, total net sown area in Man tahsil was 33.95percent. After Thirty years there is increase in total net sown area is 3.08 percent. In 2011 Land not available for cultivation is shown up and down during study period in study region. Initially, it was recorded 22.08 percent in 1991 and suddenly further decreased up to 0.02 (21.08). in 2011. There are fluctuations in land not available for cultivation. The category includes barren and uncultivable land. The overall percent of land not available for cultivation varies from 26.91 to 32.5percent. The nature and intensity of land use is closely related to the technology adopted by man. Extension of agricultural land with the help of technology may cause considerable changes in land use.

REFERENCES:

- ❖ Bharadwaj O. P. (1964): The national Geographical Journal of India.
- ❖ Chaudrun D.P., R.B. Singh, Deb and A.A. Pirazazy (1991): Land use Sustainability and Agricultural Development in the NorthWest India report Prepared of Ministry of Agriculture Govt. of India.
- ❖ Das M.M. (1981): Land use Pattern in Assam, Geo-graphical Review of India. Vol. 43 No.3 Calcutta pp-43-44.
- ❖ Hussain M. (1972): Crop Combination Regions of Uttar Pradesh, A Study in Methodology , Geographical Review of India, Calcutta. 38/1.
- ❖ Hussain M. (2004): Agricultural Geography, Rawat Publication, New Delhi.
- ❖ Johnston, Bruce F. and J.W. Mellor (1961): The Role of Agriculture in Economic Review. Vol. 5 pp. 566-593.



- ❖ Kumar J. (1986): 'Land use Analysis: A case study of Nalanda District', Bihar Inter-India Publications New Delhi-p.1
- ❖ Mankar G.S. (2008): Agricultural Land use Pattern in Mulshi Tahsil , Pune District. The Deccan Geographer Vol. 46, No.1pp- 85-91
- ❖ Phule S. and A. Badade (2003): A Geographical Study of Land use Change in Marathwada Region, The DeccanGeographer, Maharashtra, Vol. 41, No. 2 pp- 41-47.
- ❖ District Socio-economic Review and Statistical Abstract, Satara District-1989, 2001, 2011, 2012.
- ❖ <http://www.mah.nic.in>, <http://www.wikipedia.com>



Publish Research Article

Dear Sir/Mam,

We invite unpublished Research Paper, Summary of Research Project, Theses, Books and Book Review for publication.

**Address:- Dr. Ashak Hussain Malik House No-221, Gangoo Pulwama - 192301
Jammu & Kashmir, India**

Cell: 09086405302, 09906662570,

Ph No: 01933212815

Email: nairjc5@gmail.com, info@nairjc.com

Website: www.nairjc.com

