

A STUDY OF AGRICULTURAL LANDUSE PATTERN IN TASGAON TAHSIL, DISTRICT SANGLI (MS)

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INTRODUCTION

Agriculture is the most important human activity. Agriculture forms a major share of human and animal food as well as other materials to meet human needs, including the need for industrial raw materials. Agricultural activity means not only cultivation of crops but also domestication of animals, forestry, Poultry farming and many other diversified activities.

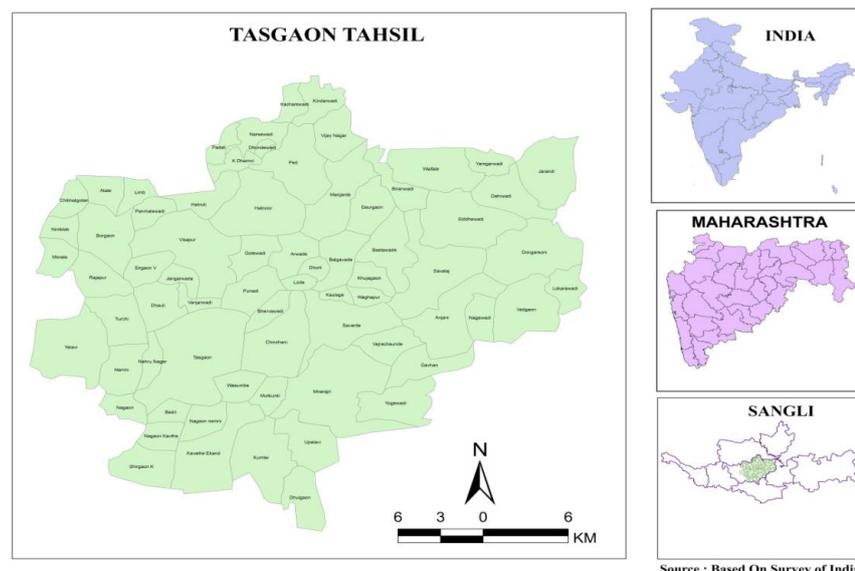
Yerala River flows by western side of Tasgaon Tahsil. It has been not continuously supplying the water to the agriculture. Drought prone area of Tasgaon Tahsil comes under rain shadow region. So the large scale of agriculture depends on the rainfall. This area especially famous for the grape cultivation. However, it is observed that no attempt of the research so far has been made to study the Tasgaon region regarding changing crops and its impact of economic development. It would be beneficial to different discipline to do so.

The net sown area in Tasgaon tahsil covers 63569.82 hectares accounting for 81.23 per cent. In 2001-02, the net sown area due to availability varies irrigational facilities. In the west parts villages have dominant net sown area due to irrigation facility, fertile soil and transport facilities in the region. The highest net sown area is available in Yerala River basin in west part in study region due to deep black soil and irrigation facility whereas lowest has identified at Eastern part of more drought prone region.

STUDY AREA

The Tasgaon tahsil of Sangli District is a cultivable area. The eastern part of Tasgaon tahsils is more drought affected area and has irregular irrigation facilities. There is always acute shortage of drinking water. Tasgaon Tahsil is bounded by Palus tahsil towards west, Sangli tahsil towards south, Khanapur-Vita tahsil towards North. The Tasgaon tahsil consists of six circles, namely Tasgaon, Yelavi, Visapur, Manerajuri, Manjarde, Savlaj.

LOCATION MAP



LOCATION

The Tasgaon tahsil is one of the most important tahsil in Sangli district. It is situated between the 17°2' north to 17°03' North latitude and 74°36' to 74°06' E longitude, Average elevation of Tasgaon is 560 meters (1837 feet). Tasgaon summer highest day temperature is in between 33°C to 41°C. Average temp of the study region is 25°C.

Some parts of the Tasgaon tahsil particularly Yerala river valley are occupied by the typical black soil. These soils are formed from the Deccan trap. The black soil contains high alumina and carbonates of calcium and magnesium with variable amount of potash. This river side is main source of sand for construction.

OBJECTIVES

- 1) To study the cropping pattern and cropping intensity in study region.
- 2) To analyze land suitability for agriculture crops in the study region.

RESEARCH METHODOLOGY

The primary data is collected from different sources Secondary data is collected from published and unpublished reports of Government and Non- Government Organizations, Agriculture Office Tasgaon. The tehsil is considered as areal unit of investigation. Percentage of area under various crops in both *Kharif* and *Rubbi* seasons is considered. Agricultural land use information on land record and field notes are also used for the study. Arc GIS Software Used for Construction of Maps of Tasgaon Tahsil.

AGRICULTURAL LANDUSE IN TASGAON TAHASIL

The cropping pattern of any region depends on rainfall, irrigation, use of High Yielding Variety seeds, technical knowledge, availability of agricultural inputs viz. capital, fertilizer, pesticides etc. Table-3.2 display temporal variations of 10 crops in study region from 2010 to 2014. Jowar occupies 12596 hectares area, accounting for 39.28 percent of net sown area in Tasgaon tahsil which is higher than the state averages of the area under Jowar to the net sown area (Maharashtra State 21.54 percent). Generally, it is raised in rabi season. Sugarcane the cash crop covers 4.42 percent to its net sown area. Due to irrigation facility increases in study area, sugarcane is grown extensively in study region. Traditionally, this crop is grown in study region. Bajra is requires rainfall between 40 and 50 cms. and dry weather condition. Shallow, black and light soils are suitable for this crop. Bajra covers 0.56 percent to net sown area in this tahsil. It is difficult to predict the market price which is based on demand and supply of agriculture market economy.

Fodder crop includes maize, kadwal and green grass. It occupies 7.41 percent in study area. Among these fodder crops, 5.62 percent land is under maize, Tasgaon tahsil increase of area under fodder crops. Oilseeds comprise sunflower, Soyabin and groundnut in study region. Soyabin covers highest area among oil seed crops in the study region. These are intercrops and are cultivated with jawar and bajra. Groundnut covers 6.46 percent, safflower 0.75 percent to net sown area. Vegetable contributes 4.17 percent in study region. It is produced by farmers to fulfill their limited family requirements and limited quantities of these products are sold in markets. Multiple cropping of vegetable is traditionally practiced where irrigation is available for a short period.

Area under Various Crops

Cropping pattern means the proportion of the area under various crops at a point of time. It is a dynamic concept, because no cropping pattern can be said to be ideal for all

times. It changes in space and time with a view to meet the requirements and is governed largely by the physical as well as cultural and technological factors. The change in cropping pattern in a particular span of time clearly indicates the changes that have taken place in the agricultural development. These changes are brought about by the socio-economic and situations the physical environment influence.

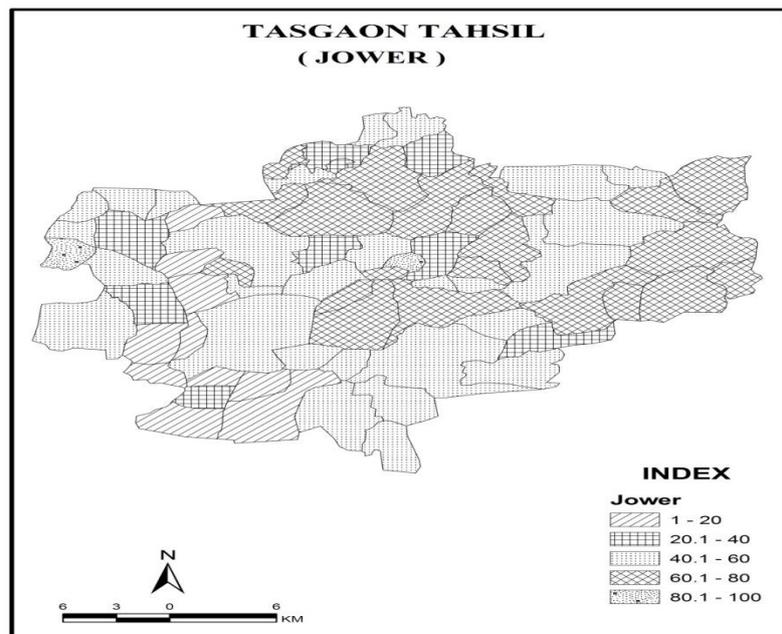
Distribution of Jawar

Jawar is a main food crop in Tasgaon tahsil and it is widely grown throughout the region. The distribution of jawar is largely controlled by amount of rainfall and soil types. This crop is cultivated in Kharib and rabi season. From more than 60 per cent net sown area is under jawar lying in south middle part of Tasgaon tahsil. This part has inadequacy in irrigation. Ten villages from this part have witnessed more than 60 per cent of the net sown area under jawar crop.

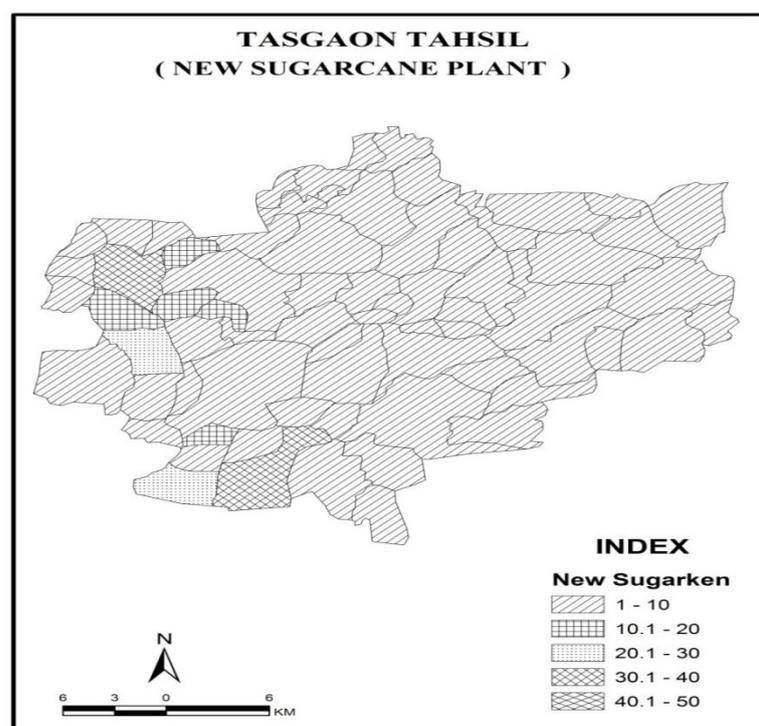
Fifty to seventy-five per cent net sown area under jawar is identified in Ped, Hatnoli, Hatnoor and Savard villages distributed into five patches. Then one major patch of eight villages lie in east, another is found in central and three are in west. Thirty eight villages under jawar have 25 to 50 per cent net sown area in tasgaon tahsil. Less than 25 percent net sown area under jawar is identified in thirty six villages distributed all over the study area.(Table No 3.4)

Distribution of Sugarcane

Sugarcane crop requires clay to loamy soil containing high organic matter. It can tolerate moderate acidity and alkalinity. Soil rich in 'Phosphorus' and 'Calcium' are suitable for better juice quality (Das, 2000). The temperature between 22° and 27° centigrade is essential for its growth. The



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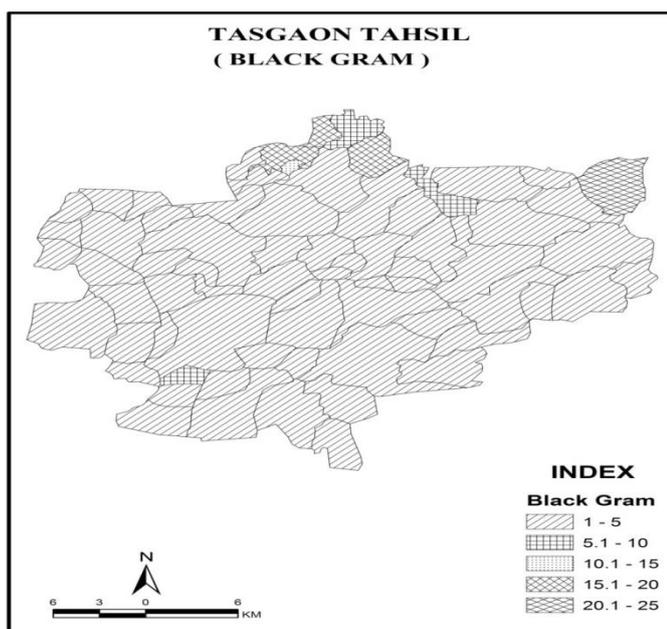


Source : Compiled By The Researcher

area under sugarcane is 4.42 percent area in tasgaon tahsil. The highest area under this crop lying in west including Shirgaon, Rajapur, Borgaon, Nimani and Nagaon Kavthe These villages are identified in the west on deep black soil. Here concentration of sugarcane is supported by Yerala, water scheme irrigation. Out of ten patches of sugarcane, six patches have been found in west side of Tasgaon tahsil having 40 to 60 per cent area under sugarcane of these patches. Because of drought prone area of tahsil sugarcane crop not possible to grown.

Distribution of Bajra

Bajra crop is cultivated in kharif season. It is drought resistant crop. This crop is grown on less amount of rainfall ranging between 25 and 45 cms. Bajra is confined to arid tract in study region on red, shallow, black and lighter soil. For the growth of bajra, less amount of rainfall is required during its growing period. Bajra is sown on accounting for 0.56 per cent to net sown area in study region. The distribution of this crop is influenced by rainfall amount, terrain characteristics and soil types. The total growth period of this crop is three to four Months. In this Tahsil sown of Bajra crop is very less.



Distribution of Fodder Crops

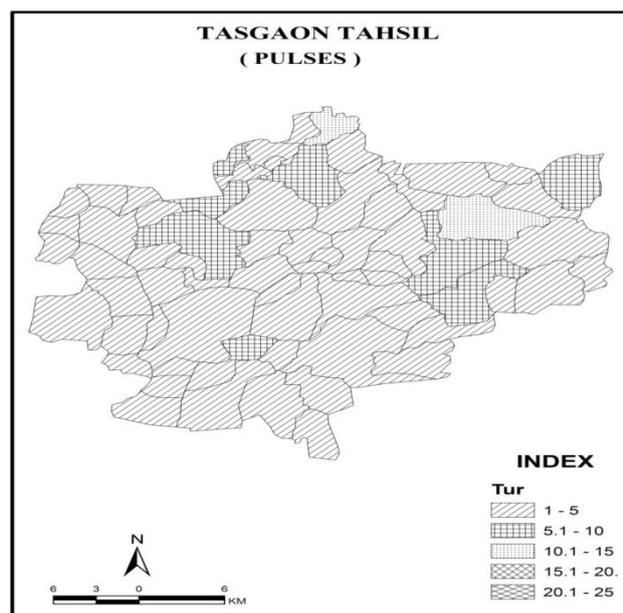
The fodder crops in Tasgaon tahsil include kadwal, green grass and maize. This crop is confined to west and north east parts in study area having livestock dominance. These fodder crops are grown with Jawar and Barja. The percent under this crop is 5.62 in central part and lowest south part in study area. Maize crop is very dominant for livestock in this tahsil. These villages are concentrated in dairy dominating area in this tahsil

Distribution of Oilseeds

Oilseeds consist of Soyabin groundnut and sunflower. This crop covers 18.85 percent area in Tasgaon tahsil. Among these crops, groundnut shares 6.46 percent area and Soyabin cover 12.39 percent area of study area. The highest percent area under oilseed is at visapur, Dhauli, Tasgaon etc in eastern side of Yerala rivers basin and lowest is in eastern side of study area. Three villages are dominant for Oilseed grown in tasgaon tahsil is widespread. Oilseed cultivation has less acreage due to larger area is under Jawar in study region.

Distribution of Pulses

Pulses consist of gram, tur, udid, moong, hulga, chavli, kulith in study area. It is cultivated on 6.06 percent to net sown area. The highest percent under pulses is found in north and lowest area in western part of Tasgaon tahsil have observed greater than 5 percent land under pulses are widely distribution in all over study area. The cultivation of this crop is mainly taken in northwest part is Jarandi, Ped, Hatnoor, Savlaj, Anjani and Vasunbe villages where pulses are grown on area of 20 to 20 per cent. There is absence of this crop in west part in study area.



Distribution of Grapes:

Grape crop concentration index in Sangli district during the year 2001-2002 and 2013-14. During the year 2001-02 high concentration (index value above 3) is observed in Tasgaon tahsil. It is mainly raised in the areas of grape cultivation, availability of suitable climate, well drained soil, availability of irrigation, constant efforts, innovative farmers, proper planning for cultivation practices Tasgaon tahsil ranks first in high concentration grape.

Tasgaon tahsil is one of the most important place in Maharashtra for grapes cultivation. The farmers are developing many types and variety of grapes. Grapes are exported mainly to Asian countries like UAE, Singapore, Hong Kong, Sri Lanka, Bangladesh, Bhutan etc. Savlaj circle including Siddhewadi, Gavhan and Vadgaon famous for grapes cultivation. The production of grapes with the help of water tanker from 10 km of Tasgaon city. The area under Grapes is 24.14 per cent in Tasgaon tahsil. Grapes cultivation are found almost all villages of Tasgaon tahsil.

ANALYSIS

Soyabean is a dominant kharif crop. Soyabean is cash crop and important oil seeds. In this area due to good quality of soil, development of irrigation facilities, and sufficient annual rainfall farmers chosen and grown the soyabean crop. In the remaining part of Sangli district (in Jath, Atpadi, Kavathe Mahankal, Khanapur and some part of Tasgaon and Kadegaon tehsils), due to low and inadequate rainfall, poor quality of soil and very low irrigation facilities total agriculture is dependent on south west monsoon and hence farmers grow the rain fed and traditional crops like Kharif Jowar, Rabbi Jowar, Bajara, Maize, Fodder, Tur, Gram and other pulses.

CONCLUSIONS

1. Generally, the rain fed crops are the major crops in eastern dry zone of study area i.e. Kharif Jowar, Rubbi Jowar, Bajara, and other pulses.



2. The cropping pattern of this area hampered frequently through the frequent drought conditions.
3. High percent of the cultivated land is under irrigation by means of wells, tube wells, tank irrigation and canal. Specifically middle and western part of the study area and soyabean or sugar cane is dominant crop.
4. The rivers Yerala River is the main source of irrigation. The highest percentage of irrigation is observed in Yerala river basin while lowest percentage is mainly covered by irrigation projects and canal irrigation dominates the region.

REFERENCES

1. Bhatia S.S. (1965) Pattern of Crop Concentration and Diversification in India, Economic Geography, Vol. 41, No. 1.
2. Census of India (2001) District Census Hand Book, Sangli, Bombay.
3. Govt. of Maharashtra (2001) Report of Fact Finding Committee for Survey of Scarcity Area of Maharashtra State, vol – I.
4. Government of Maharashtra (1969) Maharashtra State Gazetteer, Sangli District.
5. Pol N.S. (2008) Agricultural Problems and Prospects in Drought Prone Area : A Case Study of Kavathe-Mahankal, Dist. Sangli. Unpublished M. Phil Dissertation .
6. Pawar C.T. (1989) Impact of Irrigation: A Regional Perspective ,Himaiaya Publishing House, Bombay.
7. Singh, Jasbir & S.S. Dhillon (1984) Agricultural Geography, Tata Mcgraw Hill Publishing Co. Ltd., New Delhi, 2nd Edition.
8. Agriculture Office, Tasgaon Dist. Sangli.