International Journal of Advance and Applied Research (IJAAR)
Peer Reviewed Bi-Monthly

ISSN – 2347-7075
Impact Factor – 7.065
Vol.7 No.3 Jan –Feb 2020

AGRICULTURAL PROBLEMS AND PROSPECTS IN KAVATHE MAHANKAL TEHSILIN SANGLI DISTRICT MAHARASHTRA (INDIA): A GEOGRAPHICAL ANALYSIS

Dr. N. S. Pol

Dept Of Geography, P. V. P. College, Kavathe Mahankal, District Sangli.

(Affiliated to Shivaji University, Kolhapur, India)

ABSTRACT:

In Indian context, agriculture is a basic activity which accounts one fourth of the national income and provides employment to sixty five percent of working population. However, the Indian agriculture has to face many problems which can be classified as physical, social and economic.

In this paper, the tahsil Kavathe Mahankal (Dist. Sangli) is selected for study which falls in drought prone area of Maharashtra. The major objective of this paper is to study & analysis the agricultural problems and prospects as a sample study of drought prone area. Generally, Natural, Socio-economic and other technological factors affect the agricultural pattern in any area.

The tahsil Kavathe Mahankal of Sangli district falls in rain shadow zone of the Maharashtra. Where agriculture as well as animal life is mostly affected by the frequently occurrence of the droughts. In this paper the attempt had been made to analyse the Agricultural problems and the prospects of study area, This paper is divided in two parts. The first parts deals with the problems associated with the agriculture and in the second part the prospects of study area. The review of the water conservation schemes in the study area and lastly the Mhaisal and Tembhu irrigation projects which are taken by the Govt. of Maharashtra. Specifically for the drought prone area, now which are in the construction stage are also taken into consideration.

INTRODUCTION:

The irrigation commission, 1972 observed 'Assuming that districts which receive less than 75cm of rainfall per annum are liable to drought'. There are about 77 such districts in the country. Besides this the commission identifies

drought and chronic areas on the basis of annual and south – west monsoon rainfall data from 1901 – 1960 for about five hundred station and it has considered. 20% to 25% probability of rainfall departure from the normal, such areas are considered as drought areas. According to commission identification the tehsil Kavathe Mahankal of Sangli district (Maharashtra) falls in drought area.

Agriculture being a basic activity plays a vital role in Indian economy. But still it gambles with the monsoon causes high fluctuation in production inadequate rainfall of monsoon and frequent drought condition hampered the development of agriculture, particularly, in drought prone area of Maharashtra. The tehsil Kavathe Mahankal as a drought prone area result in three crop combination. Where, generally the rainless crops are the major crops of this area, as Bajara, Kharif Jowar, Rabbi Jowar and pulses which is specific cropping pattern of the drought prone area.

STUDY AREA:

The study region lies between 16^0,55' North to 17^0,16' North latitude and 74^0,45' East to 75^0,16' East longitude and altitude is 750 m above mean sea level. The Kavathe Mahankal tehsil comprises an area about 732.2 sq.km. and supports population 144596 according to Census 2001.(Fig. No. 1)

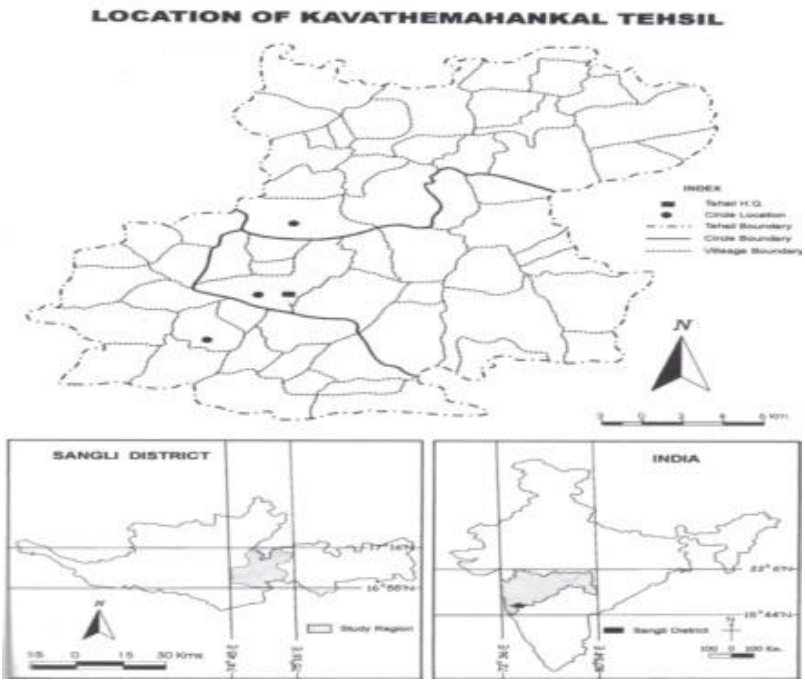

Fig.No.1.

OBJECTIVE:

1. To study the agricultural problems of study area.
2. To study the prospects of study area.
3. To assess the effect of various irrigation projects which are recently started and trial basis.

DATA SOURCE:

The data of different kinds have been collected from the primary and secondary sources. The primary data is collected through interview and discussions technique with farmer, and secondary data from published and unpublished report and abstracts such as socio-economic review, and District statistical Abstracts. Mhaisal Lift irrigation project and Tembhu Lift irrigation project, Warnali (Sangli) Agricultural office, Tehsildar office, Kavathe Mahankal circle or Block Office, Kuchi, Kavathe Mahankal and Deshing.

Other information is collected by farmers, social workers and agricultural expert in drought prone areas of Kavathe Mahankal Tahsil.

METHODOLOGY:

As the entire study is based on the data collected by various sources, interview and discussions with the agricultural expert the following methodology is adopted.

i. Agricultural land use information on cadastral map, land record and field notes are also used for the study.
ii. Information and results are presented through Tables.

THE PROBLEMS OF THE STUDY AREA:

1. Natural Problems:

The study area possesses 69703.30 hectares. of total geographic area, out of which 871.3 hectares. of land is covered by the forests and it accounts only 1.25% to total geographic area. This picture emerged only because of the dry nature of the region with hit temperature. The net sown area is about 45195.70 hectares of land which account 64.84% of the total geographic area. Though the

net sown area is very high in study region most of the agriculture practices belong to dry famines, Only 13.26% area is irrigated by well, tube well and tank irrigation locally. Considering the drought prone nature of the area the irrigation only may possible when, sufficient rainfall occur otherwise entire agriculture remaining as dry land farming.

The available land is a basic natural resource which effect directly on the nature of agriculture is any area. The north-western and northern part of the study area is situated at the height of 800 m above mean sea level.

With exceptional case like Kundlapur hill which is situated on the height 896 m above mean sea level. Generally entire area is hilly in nature and having poor quality soil where erosion process is high, generally deforestation and soil erosion is serious problem becomes basic problem for agriculture in this area. The central part of the study area is covered by plateau region where, black soils are available in the form of patches which is fertile one having high productivity but sufficient rainfall is necessary. In the southern part of the study area the Agrani river system and comparatively plain terrain are the positive factor for the agricultural development, but the scarcity of water remains a major problem for the study area in the development of the agriculture.

As the irrigation commission identified the area of Kavathe Mahankal tehsil as a permanent drought area, comprises dry climate which affects very seriously on plant and animal life of this area. Whatever, agricultural practices have been made by the people majority that includes in dry land farming which is much handicapped as compare to the irrigated farming of the other area. Climate plays important role in agricultural economy and development. But semi-arid and dry climate of the area is a major problem of agricultural activity. Because of the high temperature condition, low rainfall and low humidity,poor quality of soil, soil erosion which affects badly on the crops as well as natural vegetation and human life of this area.

2. Economic Problem:

As the tehsil Kavathe Mahankal comes in rain shadow zone in the western Maharashtra the scarcity of water for drinking as well as agriculture practices, is a basic problem of the area. About 86.74% area of the net sown is of

permanently dry land farming and the cropping pattern like Jowar, Bajara, Pulses and Oil seeds emerged as a cropping pattern of drought prone area. This dry land cropping pattern also faces the problem of drought prone area. This dry land cropping pattern also faces the problem of drought condition and famines situation frequently. To provide water for agriculture by various means of irrigation is the only solution remaining to minimize the intensity of drough situation. But only 13.26% land is irrigated by well, tubewell, tanks in the study area, but all these facilities which are available in this area are totally depend upon the rainfall condition of the year, whenever the area enjoys sufficient rainfall with equal distribution in monsoon period in such position above mentioned all the means of irrigation are only successfully utilized by the farmers. Because of the dry land cropping pattern of this area, lack of irrigation facilities and the traditional agricultural practices, the productivity remains low and majority farmers have to struggle with the permanent poor condition. In this situation for farmers of this area turned to the other subsidiary activity like dairy farming, livestock and poultry etc.

Most of the farmers in these areas utilized the traditional methods and seeds for cultivation of the crops. Now – a days it is necessary to use the improved drought registrant verities of Jowar, Bajara, Cotton which are provided to the farmers by the Govt. agencies under the high yielding variety programme and all these modern seeds are also available in private sector also allows with this it is necessary to use the chemicals, fertilizers and pesticides for the more production but considering the poor condition of the farmers it is not possible thoroughly. The central and state government also provides such types of fertilizers and pesticides through Zilla Parishad and Panchayat Samiti to the farmers. Beside this modern technology should be utilized in the sector of agriculture operations and irrigation systems.

Along with the modern technology which should be utilized in agriculture the market and transport facilities plays also vital role in the development of agriculture. The supply of electricity and connectivity to each settlement through road networking is sufficient in the tehsil, but the facilities regarding agro service centre, agricultural market, cold storages are inadequate in study area.

The Financial system which is established by the State and Central Government is working in this area, but because of the frequent droughts and famines the farmers became hard and fast rules and regulations, and all these financial agencies have stopped their finance to such farmers. Ultimately the farmers prefer the way of suicides.

3. Social Problem:

The frequent drought condition and famines the problem of scarcity of water becomes a permanent problem in this area. So the nature of agriculture mostly remains subsistence type. The land holdings becoming smaller and smaller due to the Hindu law that is father to son which is major barrier in the development of agriculture to India also, it badly affects in using the some modern technology in agricultural practices.

The Kavathe Mahankal tehsil being a permanent drought prone area creates the problems of scarcity of water and because of frequent droughts there is a great uncertainty in agricultural productions. So the farmers of this area rushed to the tendency of fatalistic.

PROSPECTS OF STUDY AREA:

Maharashtra Krishna Valley Development Corporation, Pune which is undertaking by the Govt. of Maharashtra have been proposed two projects for the development of drought prone area in Maharashtra. One is Krishna Koyna Lift Irrigation Project – Mhaishal Part and second is Tembhu Irrigation Project Section – I, Sangli. The one pump house is to be constructed at Jath Canal Tunnel shaft at Ch.5/175 m and water is to be lifted and let out into ridge canal. The total length of Canal is 20km and it will end in Landagewadi M.I. tank. This will irrigate 1910 hectares. of Agalgaon, Jakhapur, Kuchi Villages.

Through this Mhaishal Project about 32 villages (table No.1.) of the study area will be benefited and the total area about 13758 hectares of land will be irrigated, by which 25.38% area will be brought under irrigation newly to the total net sown area of tehsil.

Table No.1: Krishna Koyna Lift Irrigation Project – Mhaishal Part under Proposed Area in Study Area

Sr.No	Name of the Village	Command area in hec.	Sr.No	Name of Village	Command area in hec.
1	Sarati	440	17	Borgaon	297
2	Karoli (t)	780	18	Jadhavwadi	265
3	Kongnoli	871	19	Deshing	1365
4	Kuktoli	649	20	Banewadi	109
5	Mhaishal (M)	1304	21	Ranjani	94
6	Hingangaon	264	22	Lonarwadi	20
7	Shindewadi	1007	23	Dhulgaon	163
8	Bandgarwadi	50	24	Pimpalwadi	50
9	Morgaon	574	25	Jayghavan	121
10	Moghamwadi	106	26	Kharshing	75
11	Malangaon	604	27	Alkud	170
12	Shirdhon	545	28	Tiramalwadi	30
13	Landgewadi	38	29	Vithurayachi Wadi	94
14	KavatheMahnakal	833	30	Agalgaon	795
15	Zurewadi	624	31	Jakhapur	270
16	Haroli	235	32	Kuchi	880

Source – Mhaishal Lift irrigation Project, Warnali (Sangli)

TEMBHU IRRIGATION PROJECT:

The Tembhu Irrigation Project is sanctioned by the Govt.OfMahashtra in the year 1996 of the cost of Rs.1416.59 crores approx. but in the year 2004, the Govt of Maharashtra have re-estimate the cost of this project Rs.2106.09 crores. The striking feature of this project is to provide the irrigation for the highest part of the drought prone area of Western Maharashtra. This project is beneficial not only for the Satara and Sanlgi districts but also too for Solapur. The Karad tehsil from Satara District, Kadegaon, Khanapur, Tasgaon, Atpadi andKavatheMahankal tehsils from Sangli district and Sangola tehsil from Solapur district. About 211 villages of all these seven tehsils will be benefited and 80472 hectares. Land will be brought under irrigation.

Table No.2: Villages beneficial (KavatheMahankal) under proposed Tembhu Irrigation Project

Sr.No.	Name of the Village	Sr.No.	Name of the Village
1	Arewadi	12	Nangole
2	Agalgaon	13	Nagaj
3	Langarpeth	14	Nimaj
4	Dhalewadi	15	Ghorpadi
5	Irali	16	Ghatnandre
6	Alkud (s)	17	Tisangi
7	Ranjani	18	Kundalapur
8	Kokale	19	Raywadi
9	Bassappachiwadi	20	Garjewadi
10	Karalhatti	21	Wagholi
11	Moghmwadi		

Sourse – Tembhu Lift Irrigation Project, Warnali (Sangli)

The northern and north-estern hilly and high altitudinal part of the KavatheMahankal tehsil is joined to the Tembhu Irrigation Project. The irrigation is provided to the 21 villages (Table No.2.) of the area and 7872 hectares of land will be brought under irrigation by this Tembhu Irrigation Project in study area. It accounts 14.52% irrigated land to the total net sown area in tehsil.

Thus after completion of the Mhaishal and Tembhu irrigation projects together will provide the irrigation to 21590 hectares of land of 53 villages in the study area . Still 13 villages are isolated from the benefited of the irrigation from both the projects which are situated in far north – eastern part of the tehsil. from last year the Mhaishal project is activated and irrigation is started. The Tembhu project yet to be sarted. After completion of both projects net addition of 40% irrigated are in previous irrigation and total irrigated area will be 53.16% in entire tehsil considering other favourable geographic factors of this area. These projects will boon to the agriculture development and these project should be considered to prove a boon for the drought area KavatheMahankal and definitely the future for agriculture is a prosperous one.

RECOMMENDATION:

1 Use of drought fighting programe.
2 Saving of standing kharif Crop from drought affect.
3 Providing pre-sowing irrigation for rabbi crop
4 Providing a Minimal irrigation for growing vegetable, Fruits and fodder crops in small area.
5 Introduce new high yielding crop verities.
6 Introduce of shot duration varieties of crops
7 New agronomic practices are necessary.
8 Soil conservation practices like contoure banding, terracing, land leveling etc.
9 New irrigation project should be accelerated towards dry land areas.
10 The need of education intensive programme through demonstration and extension services for water management at farm level.
11 Need of the main policy for drought areas should be consunective use of water of rainfall surface and underground water to sustain and optimal crop pattern and to insure a regional and reliable income per hectors.
12 Afforstration, soil and moisture conservation.
13 Restructuring of cropping pattern and pasture development.
14 Livestock development.
15 Development of small and marginal farmers etc.

All these area the drought fighting programme should be applied for the development of drought prone area.

CONCLUSIONS:

1. Natural, socio-economic and other technological factors affect the cropping pattern.
2. The Tahsil KavatheMahankal falls in drought prone area which affects the cropping pattern.
3. Generally, the rainfed crops are the major crops of this area for i.e. Bajara, Kharif Jowar, and Rubbi Jowar.

4. The cropping pattern of this area hampered frequently through the frequent drought conditions.
5. Very low percent (13%) of the cultivated land is under irrigation by means of wells, tubewells and tank irrigation in the study area which can notreplaced the specific cropping pattern of the droughtprone area.
6. Various projects which are taken by the Govt. of Maharashtra specifically for the droughtprone area named Mahishal, Takari and Tembu are in the progressive stage. After the completation of three projects water is supplied to the agriculture by Canals then and then the total scenario of the existing cropping pattern may be changed in the droughtprone areas in near future.

REFERENCES:

1. Arora R. C. (1976) Development of Agriculture and Allied Sector, S. Chand and Co., New Delhi
2. Bhatia S.S. (1965) Pattern of Crop Concentration and Diversification in India, Economic Geography Vol. 41., No.1
3. Pawar C.T. (1989) Impact of irrigation. A Regional Perspective Himalaya Publishing House, Bombay.
4. Pol N. S. (2008) Agricultural Problems And Prospects of Drought Prone Area, A Case Study of Kavathe Mahankal Tehsil, Dist – Sangli, Unpublished M.Phil. Dissertation, Submitted To Bharathidasan University,Tiruchirappali,Tamilnadu.
5. Singh, Jasbir (1974) An Agricultural Atlas of India. A Geographical Analysis, Kurukshetra, Vishal Publication, Kurukshetra.
6. Singh R. L. (1975) New Perspective in Agricultural Geography National Geography Vol. II
7. Singh, Jasbir & S.S. Dhillon (1984) Agricultural Geography, Tata Mcgraw, Hill Publishing Co. Ltd., New Delhi, 2nd Edition