



Capability of Sugarcane Production in Dindori Tahsil (Nashik District, Maharashtra)

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Abstract

India producing 20% sugarcane of the world and rank first in the production. Government of India took initiatives to produce sugarcane and to develop sugarcane industries. Five year plans gives special attention to this issue. But, there are various factors which influence on the overall production of Sugarcane. i. e. Climate, Physiography, Soil, Irrigation, Hybrid Varieties, Administration of Sugar industry and many more. Maharashtra ranks second in the production of Sugarcane in India. Western part of Maharashtra have huge potential of sugarcane production. So Regionally Western Maharashtra ranks first in Maharashtra state. Nashik district lies in Northern Maharashtra. Ahmednagar district ranks first in North Maharashtra. Nashik District have 5 co-operative sugar factories and 2 private sugar factories. Kadwa Sugar Factory is located in Dindori Tahsil. This sugar Factory was established in 1978. After the 42 years of experience, this factory have some challenges of Sugarcane production. So this paper will reveal the capability of Sugarcane production in Dindori Tahsil.

Keywords- Capability, Sugarcane, Recovery, Average, FRP.

Introduction

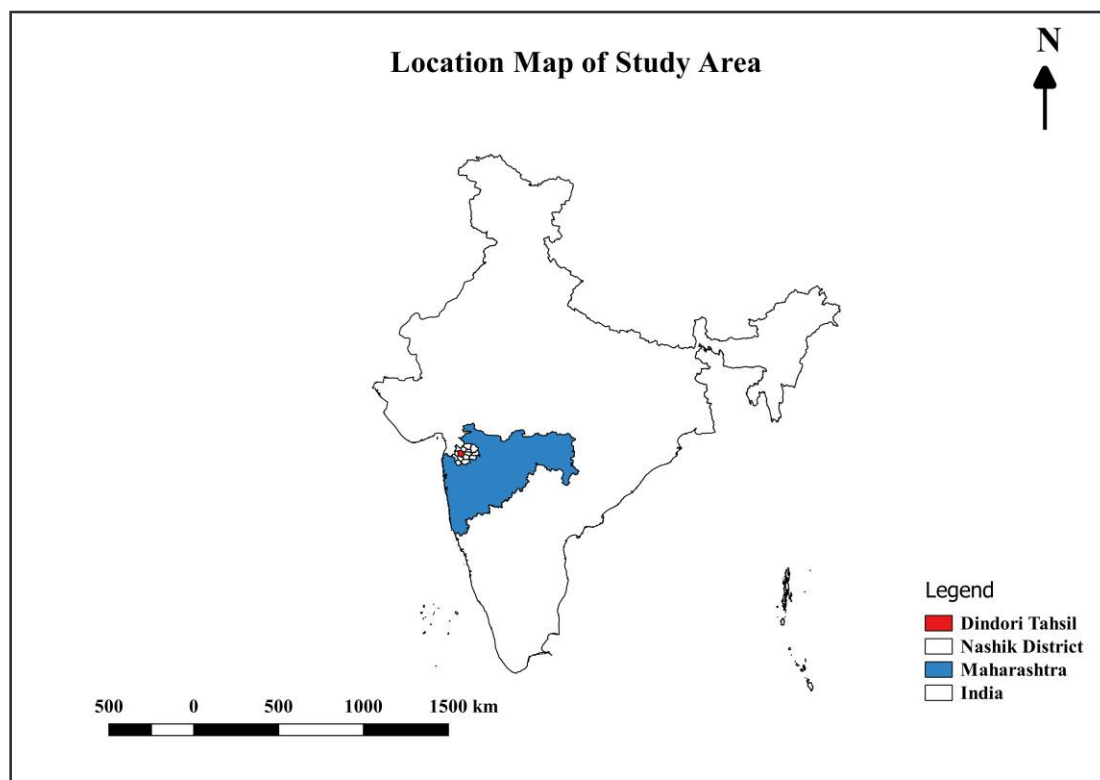
India is an agrarian country which produces variety of crops as per the capability of region. Man crops have their identity according to region. Eg. Apples of Kashmir, Wheat of Punjab and Pulses of Madhya Pradesh. Same way specific regions of Maharashtra also have identity of regional crops. Eg. Bananas of Jalgaon, Grapes of Nashik and Rice of Kokan. But availability of irrigation, security of prices and effect of Climate force to farmer to grow Sugarcane. So many farmers growing Sugarcane in Nashik district. But what is the potential of production of Sugarcane in any region? Is the not studied in Nashik District. So this work trying to find out the capability of production of Sugarcane in Dindori tahsil of Nashik District.

Methodology-

Researcher have used most of secondary data and 100 interviews of farmers are conducted in the form of primary data. Annual production of Sugarcane and recovery is retrieved from Cane gate of Sugar Factory. Record of rate of sugarcane is available in the account section of Factory. There are 10 Villages which are selected on the basis of ranking of high producing Sugarcane. In these villages 100 farmers are selected to fill the questionnaire. Questionnaires are form to achieve the objective of the study.

Location

Dindori tahsil is selected for the study of capability of sugarcane production. It is located in Nashik District towards north. The geographical area of this tahsil is 13202.50 Sq. km. There are 157 villages. Out of these 20 villages are having more than 3000 population. The economy of this tahsil is completely depend on agriculture.



Year wise Sugarcane Production, Recovery and Rate

| Year | Sugarcane Crushing (Ton) | Recovery in % | Rate per Ton |
|-------------------------|--------------------------------|------------------|-----------------|
| 2015-16 | 268093 | 11.20 | 2214 |
| 2016-17 | 119644 | 10.58 | 2375 |
| 2017-18 | 268809 | 11.66 | 2285 |
| 2018-19 | 300205 | 12.19 | 2603 |
| 2019-20 | 235934 | 11.75 | 2736 |
| 2020-21 (Estimated) | 450000 | 12.00 | 2736 |

Physiography

The eastern part of Dindori tahsil is plateau which have a 500M MSL. Due to availability of plateau region, irrigation facility is developed. Very few part of western part of Dindori tahsil is mountainous. Many peoples did the levelling of the undulated part and practicing the sugarcane farming. Uncertain production, effect of climate, uncertainty of prices leads to produce sugarcane.

Soil

The bank of Kadwa River have alluvial soil, which is deep and fertile. The water holding capacity of this soil is more. Somewhere Black and Red soils are found which also favourable for sugarcane production.

Climate

Climate of Dindori tahsil is too much favourable for the productionof Sugarcane. Most of region have Monsoon type of climate.

Rainfall

Favourable

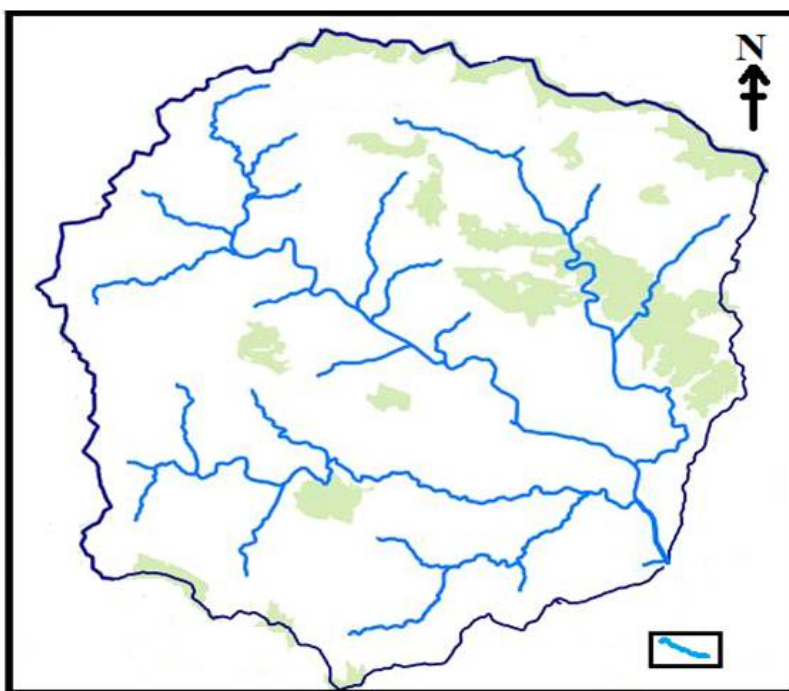
Temperature

Favourable

Drainage System

Kadwa is the major river which arises at the Kem Mountain. There are many tributaries which meets to the Kadwa River. Viz. Unanda, Parashari, Waghad, Kajali, Vanitha. The total length of Kadwa River in Dindori tahsil is 66 km.

Drainage System in Dindori Tahsil-

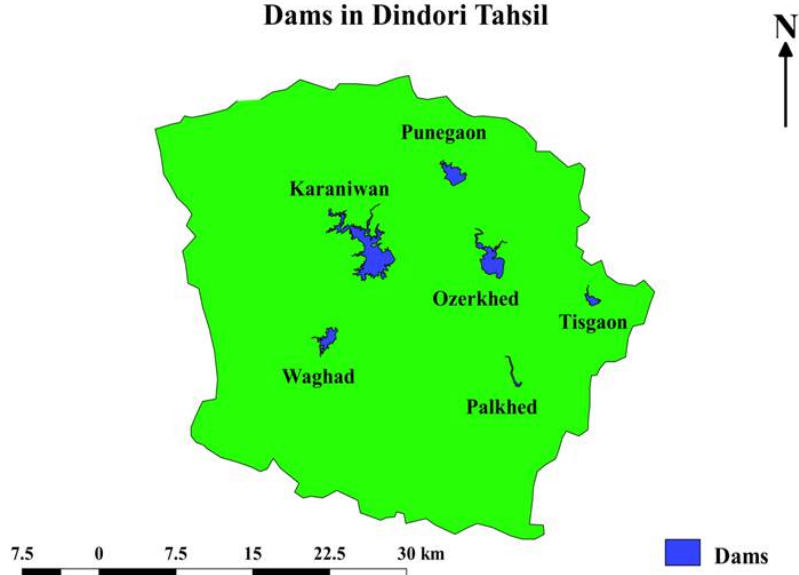


Availability of water-

There are six dams located in Dindori Tahsil. Namely Karanjwan, Waghad, Palkhed, Puneqaon, Tisgaon and Ozerkhed. Total dams have 334.82 TMC storage capacity. The highest capacity is of Karanjwan Dam. Karanjwan, Waghad, Palkhed and Ozerkhed dams have facility of canal irrigation. Every year these canals have specific supply of water through rotation. These canals provide water to many villages and irrigate 31606 hectares of land.

| Sr. No. | Dam | Storage Capacity (TMC) | Project Irrigated Area (Ha) |
|--------------|---------------|---------------------------|--------------------------------|
| 1 | Karanjwan | 152.09 | 1574 |
| 2 | Waghad | 70.84 | 6450 |
| 3 | Ozerkhed | 60.32 | 10400 |
| 4 | Palkhed | 21.24 | 44171 |
| 5 | Puneqaon | 17.57 | 6984 |
| 6 | Tisgaon | 12.76 | 1727 |
| Total | 6 Dams | 334.82 | 71306 |

Dams in Dindori Tahsil



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Canals

Threedams of Dindori Tahsil have canal system. Viz. Karanjwan, Waghad and Ozarkhed. Waghad Project is an ideal project in India. The water user societies are functioning smoothly, which helps to distribute the water evenly. The farmers nearby the Canals are used water to irrigate the Sugarcane crop. There are Three rotations of the water when the farmers demand the water for Agriculture. Well known Waghad Water User Society is working very good work in the distribution of water and water tax.

Wells

Most of the villages have good aquifer and underground water level. Many farmers have digged out the wells as per capacity. Number of wells is more near the bank of the river Kadwa and its tributaries.

Tube wells

There are many tubewells in the study area which helps to irrigate the sugarcane fields. In the emergency or scarcity of water availability, tubewells are ultimate solution. It is easy and affordable to small farmers.

Distance

Distance is the prominent factor which affect directly on transportation cost and profit Kadwa Co-operative Sugar Factory is located at Rajaramnagar, Materewadi. The location of this factory is close to the sugarcane fields. It does not require to travel more distance which reduces the transportation cost. Due to less time to reach the raw material at factory do not affect on the overall recovery. Most of the roads are metalled which makes easy to transport the sugarcane.

Conclusion

The availability of water, favourable climate, favourable physiography and soil Certainty in the production and profit, better administration, closeness of sugarcane factory are the factors of capability of Sugarcane production. Rate of the sugarcane is also dominant factor which influence on the production of Sugarcane. This is a cash crop. So people prefer to grow Sugarcane. The rate is increasing day by day which empower the economy of farmers. Capability of Sugarcane production is also increase in this Tahsil.

Conflicts of Interest

The authors declare that there is no any conflict of interests related to publication of this work.

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Factors determining Indian Sugar Production and its Comparative Advantage

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