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Present Status and Future of Sugar Industry in District Bundi

Dr. Bhartendu Gautam

Assistant Professor of Geography

Government College, Bundi

Rajasthan, India, 323001

Dr. Vikas Kumar Sharma

Assistant Professor of Political Science

Government College, Bundi

Rajasthan, India, 323001

Abstract

Manufacturing is a major economic activity in present era. The level of economic development is calculated on the industrial development. The industries which are based on agro-products for their raw material are called agro-based industries. Sugar industry is an agro-based industry which uses sugarcane or beetroot as a raw material. In district Bundi of Rajasthan sugar industries remained a base of agro-economic development for more than 30 years. But later after it due to some reasons it came under the category of sick industries and state government decided to close it. The proposed research focuses not only upon the reasons responsible for the establishment of sugar industry in district Bundi, but also focuses upon the facts that were in the back of the sickness of this industry. The proposed research also finds out the opportunities and suggestions to restart this sugar mill of district Bundi.

Key Words: Manufacturing, Economic Activity, Agro-based Industry, Sickness.

Introduction

The district is situated in the south – east of Rajasthan, Between latitudes 24° 59'11" and 25° 53'11" North and Longitudes 75° 19'30" & 76° 19'30" East. The length of the district from east to west is about 110 km. and it is about 104 kms from north to south. Bundi is bounded on the north by Tonk District, on the west by Bhilwara and on the south – west by Chittorgarh district. The river Chambal forms the eastern Boundaries, separating the Bundi and Kota territories. The southern tehsil of Bundi forms a wedge between Bhilwara and Kota and also touches Chittorgarh district. The total geographical area of the district is 581938 hectares. The Bundi district ranks Twenty second among the existing 33 Districts of Rajasthan from the point of view of area.

Table-1.1
Administrative Setup: District Bundi

S.N.	SUB DIVISION	TEHSILS	AREA (Sq. Kms)	VILLAGE NUMBERS	TOWN
1	Bundi	Bundi	1929	166	Bundi
2	Talera	Talera	N.A.	106	Budhpura
3	Keshavrai Patan	Keshavrai Patan	754	122	K.Patan Kapren
4	Indergarh	Indergarh	668	121	Indergarh, Lakheri
5	Nainwa	Nainwa	1158	190	Nainwa
6	Hindoli	Hindoli	1341	186	Hindoli
Total			5850	891	7

Source: District Statistical Year Book 2018

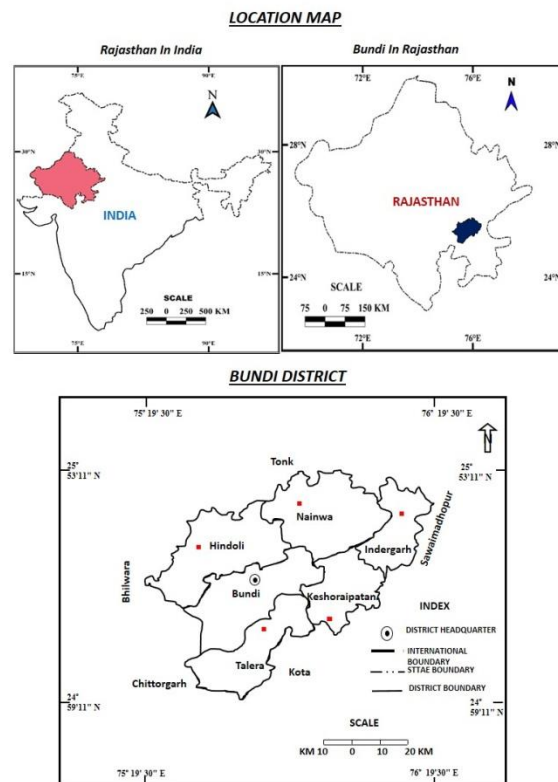


Fig. – 1

Location Map of District Bundi

Sugarcane is one of the major crops in Rajasthan. Sugarcane is considered as a cash crop. Sugarcane is mainly used in the sugar industry. Bundi, Udaipur, Bhilwara, Sriganganagar, Chittorgarh and Kota are the major sugarcane producing districts of Rajasthan. Sriganganagar is the largest sugarcane producing district of Rajasthan. The production of sugarcane in Rajasthan in 2017-18 was 381.868 thousand M.T. while in 2018-19 the production of sugarcane in Rajasthan was 448.115 thousand M.T. In 2018-19 the total area under the production of sugarcane in district Bundi was 575 hect., while the production of sugarcane in 2018-19 was 47764 m.t.

The development of sugar industry in India was started in 1903. At present there are three sugar mills in Rajasthan, out of which 2 were established before independence and rest one was established after independence. In 1932 “The Mewar Sugar Mills Limited” was established in Bhupalsagar, Chittorgarh. It was the sugar mill of Rajasthan which was

established in private sector. Later in 1945 another sugar mill established in Sriganganagar. It was known “Bikaner Industrial Corporation”. Later it was acquired by Rajasthan State Government in 1965 and known as “Rajasthan State Ganganagar Sugar Mills Limited”. In 1965 second sugar mill in cooperative sector was established by state government in district Bundi. This sugar mill is known as “Shree Keshoraipatan Sehkari Sugar Mills Limited”. This mill was established to utilize the production of district Bundi. Soon this sugar mill became the main stake of the economy of district Bundi. The establishment of this sugar mill encouraged the production of sugarcane in the surrounding area. But later due to various reasons this sugar mill got sick and closed after the thirty five years of establishment.

Related Work

Industrial development is a common and general topic of discussion among the researchers. A lot of research work has been undertaken in the field of economic and industrial geography.

Author himself in (2011) studied about the spatio-temporal development of agro-based industries in district Bundi. Taptej Singh, Sumit Bhardwaj & Baljinder Kaur (2015) studied in detail about the role of sugar industry in the sustainable development of agriculture. Sushil Solomon (2016) studied about the sugarcane production and development of sugar industry in India. Ankita Gupta (2016) analyse the problems of agro-based industries with special reference of edible oil industry in Rajasthan. Abhishek Sharma, Meghna Meena (2017) Studied the impact of industrialization in Rajasthan, with special reference to socio-economic problems, WWJMRD 2017; 3(5): 56-59, Abhishek Sharma, Meghna Meena. Radhika Kapur (2018) studied in detail about the industrialization in India. Amit Chatterjee (2020) Studied the Socio-Economic Conditions of the Handloom Weavers of Kota and Bundi District in Rajasthan. Shivagami, G & T., Rajendra Prasad (2020) studied in detail about the performance of agro-based in India. They explained it with the special reference of sugar industry in India.

Methodology

Both scientific and empirical methods are used to intensify and make the study more analytical, so that the results and conclusions could be more effective and applicable for industrial and economic development.

Types of data collected

1. Primary data – From field study, self-observation, questionnaire, anecdote etc.

2. Secondary data – Secondary data are collected from published and unpublished sources like statistical books, hand books published by various departments, various editions news papers etc. Random sampling method is used to use data whether primary or secondary as requirements and applicability.

An Overview of Industrial Development of district Bundi

District Bundi is rich in the production of various raw materials and natural resources. This production helps in the industrial development of district Bundi. Various industries have been established here since last few decades. Rice industry, edible oil industry, sugar industry, cement industry, lakh-chudi industry, handloom industry, dal mills, flour mills, wooden industry are the major industry that have been established here. The industrial development in district Bundi can be divided in to two categories, 1. Large and medium scale industries 2. Small and cottage level industries. Table no. 1.2 shows the comparative scenario of industrial development in district Bundi.

Table-1.2

Over All Industrial Scenario in District Bundi

Year	Number of Reg. Unit/	Employment	Investment in Lacs
2005-2006	190	480	39.29
2006-2007	214	758	370.09
2007-2008	225	825	216.74
2008-2009	225	678	199.41
2009-2010	225	826	320.37
2010-2011	225	1107	2320.34
2011-2012	225	637	440.40
2012-2013	230	937	798.94
2013-2014	240	961	894.60
2014-2015	35	189	402.92
2015-2016	114	602	1248.47
2016-2017	577	3120	9020
2017-2018	571	2329	8835.00
2018-2019	818	3044	9799.00
Total	6665	22992	35794.24

Source: DIC, Bundi

According to DIC, Bundi, here are eight large and medium scale industries situated in district. Six industries out of these eight industries are working, while two are closed. Three industries belong to edible oil production; two belong to rice production while remaining one is cement industries. One sugar industry and one export-import industry of large and medium scale are closed at present. Once these closed industries were playing a major role in the development of district Bundi. District Bundi was famous for its sugar mill, called Keshoraipatan Cooperative Sugar Mill, but this sugar industry is closed now days. At present rice and edible oil industries are dominating the industrial scenario in district Bundi. Three large and medium scale edible oil industries are working in district Bundi. Rice is also an important industry at large and medium scale in district Bundi. Two large-medium scale rice industries are situated in district Bundi. ACC cement industry is also contributing in the economic development of district Bundi. The table shows the industrial scenario at large-medium scale in district Bundi. It is also clear that rice and edible oil industries are dominating the large-medium industrial sector of district Bundi.

Experimental Results and Discussion**Sugar industry**

Sugar industry is an important agrobased industry of Bundi district. Sugar and Jaggery-khandsari industry are probably the oldest industry of Bundi district. The mainstay of the economy of Bundi district was the sugar industry, which was the first large-medium scale industry to be established in Bundi district. While in the year 1965, Keshoraipatan Cooperative Sugar Mill was established at Keshoraipatan in the cooperative sector. This mill started production in the year 1970. After working for almost thirty-five years, it was closed by the state government in the session 1999-2000.

At present, the sugar industry is working in the form of Jaggery-khandsari industry at village and cottage level. In the industry, sugar is made mainly from sugarcane juice. At present, sugar is also being made from beetroot juice. But in Bundi district, sugar is made from sugarcane juice.

Reasons for the development of sugar industry in Bundi district

District Bundi has favorable conditions for industrial development. These favorable conditions supported to the establishment of sugar industry in district Bundi. The following were the reasons for the development of rice industry in Bundi district -

1. Sugarcane is a tropical crop for which the required average rainfall is 125 cm. Irrigation is required in less rainfall areas. The black-loamy soil is favorable for sugarcane. Keshoraipatan, Hindoli, Nainwa tehsils of Bundi district are known for the sufficient production of sugarcane. Especially Bundi and Keshoraipatan tehsils have the favorable conditions like soil, adequate canal irrigation facility etc. The 75.29 percent of total irrigated area of Bundi tehsil and 96.45 percent Keshoraipatan tehsils, is irrigated by canals. The deficiency in rainfall is compensated by this canal irrigation.

In the year 1988-89, the production of sugarcane was 57069 metric tonnes in Bundi district. Whereas in 1996-97, the production of sugarcane was 158395 metric tonnes and in the year 2005-06, it was 90453 metric tonnes. In the year 1996-97, about 43 percent of the total sugarcane production of the district was produced by Keshoraipatan and Bundi tehsils.

Adequate production of sugarcane in Bundi district provided a strong base to the sugar and jaggery-khandsari industry in the district and in view of this production, the state government was inspired to establish an important industry like sugar industry in the cooperative sector.

Table 1.3 and 1.3.1 shows the comparative pattern of sugarcane production and production area according to tehsil in Bundi district.

2. Another major reason for the development of sugar and jaggery-khandsari industry in Bundi district is that this industry has been operating at village and cottage level since ancient times. Even before the establishment of cooperative sugar mill in Bundi district, the work of making jaggery and sugar from sugarcane juice was very popular at village and cottage level. Due to this, no special difficulty was experienced in the establishment of sugar mill in Bundi district.

Table 1.3

Tehsil wise Comparative Pattern of Sugarcane Production in District Bundi

Year	Tehsils									
	Bundi		Keshoraipatan		Hindoli		Nainwa		Indergarh	
	Production area in Hect.	Production in M.T.	Production area in Hect.	Production in M.T.	Production area in Hect.	Production in M.T.	Production area in Hect.	Production in M.T.	Production area in Hect.	Production in M.T.
1989-90	1847	85600	1104	44080	2220	1975	629	13830	&	&
1995-96	1730	50320	1230	48336	5510	50130	8010	45630	&	&
1999-00	619	1238	328	19680	4059	1700	1475	40440	15	900
2005-06	87	1566	2	6	2455	68740	696	20130	11	11
2010-11	61	2220	NA	NA	460	1840	259	7770	6	42

Source: District Statistical Department, District Land Record Department, Bundi

Table 1.3.1

Tehsil wise Comparative Pattern of Sugarcane Production in District Bundi

Year	Tehsils											
	Bundi		Keshoraipatan		Hindoli		Nainwa		Indergarh		Talera	
	Production area in Hect.	Production in M.T.	Production area in Hect.	Production in M.T.	Production area in Hect.	Production in M.T.	Production area in Hect.	Production in M.T.	Production area in Hect.	Production in M.T.	Production area in Hect.	Production in M.T.
2014-15	29	145	1	10	873	2155	253	7590	7	14	26	260
2017-18	12	120	6	30	643	1607	86	2580	0	0	18	180

Source: District Statistical Department, District Land Record Department, Bundi

3. After making jaggery and sugar from sugarcane juice, the remaining bagasse was used as fuel and as fodder for animals. Similarly, the molasses obtained as a by-product in the sugar industry was used for the manufacture of alcohol. Due to this the sugar mill got double benefit.

4. Adequate population resides in the district area of the sugar mill for the consumption of sugar obtained from the sugar mill and supply of labor. The population of Bundi district is 962620 (2001) and Kota metropolis is located near Keshoraipatan where huge market exists for sugar consumption.

5. Adequate quantity of water is required for the sugar industry. The Chambal River forms the southern boundary of Keshoraipatan tehsil and this river provides sufficient water to the sugar industry. The canals of river Chambal are the life line of the agriculture in district Bundi, especially in Talera, Keshoraipatan and Bundi Tehsils.

Table 1.4

Comparative Pattern of Sugarcane Production in District Bundi

Year	Production in M.T.	Production area in Hect.
1989-90	145485	5800
1995-96	453640	10686
1999-2000	63958	6496
2005-06	90453	3251
2010-11	786	11872
2014-15	1284	10174
2018-19	575	47764

Source: District Statistical Department, District Land Record Department, Bundi

6. Tehsil Keshoraipatan is well connected with the other parts of state as well as country. Kota-Lassot mega highway and Delhi-Mumbai rail line provide facilities for export-import for this sugar mill.

It is clear from the analysis of the above reasons that there were sufficient facilities for the establishment and development of sugar and jaggery-khandsari industry in Bundi district.

The establishment of sugar industry put a positive effect on the economy of district Bundi. A boost up in the production of sugarcane was noticed in district Bundi. This was the positive result of the establishment of sugar mill. The cooperative sugar mill introduced the new occasions of employment in district Bundi. The establishment of sugar mill encouraged the various other economic activities and related business in the area. This mill wrote a success story of a new economic era in district Bundi.

Establishment and development of sugar industry

The establishment of sugar industry in Bundi district is considered to be the beginning of a golden era. Inspired by the huge production of sugarcane in Bundi district, the Government of Rajasthan decided to set up a sugar mill in the cooperative sector.

After a detailed survey, Keshoraipatan tehsil was considered the best for setting up a sugar mill due to favorable conditions. In 1965, a cooperative sector sugar mill was established in Keshoraipatan tehsil under the name of M/s Keshoraipatan Cooperative Sugar Mill. It was established under the Rajasthan cooperative society act-1965. The mill was established with the 84:16 shares by state government and local sugarcane producer farmers. Production started in this co-operative sugar mill on 25 March 1970. For almost thirty five years this industry remained the basis of the economy of the district.

Inspired by the establishment of sugar mill, the farmers paid a full attention on sugarcane production. The production and production area of sugarcane increased continuously in Bundi district. Bundi district remained on top regarding the production of sugarcane in Rajasthan for a long time.

But this co-operative sugar mill, which is called the "lifeline" of Hadauti, came under loss due to some reasons. In the year 2003, the state government closed this sugar mill which was continuously running in losses. Even after more than 20 years this mill has not been restarted. 22 April 2003 is considered as a black day in the history of this cooperative sugar mill, when the decision to close this mill was taken by state government.

Table 1.5

Fact File of Cooperative Sugar Mill

Name of the Unit	Product	Capacity	Date of Production Start	Total Capital		Employment	Production Value
				Fixed	Functioning		
Ms Shree Keshoraipatan Cooperative Sugar Mill	Sugar	1250 Ton	25.03.70	525.58 Lakh	749.22 Lakh	575	560.03 Lakh

Source: DIC, Bundi



Closed Cooperative Sugar Mill, Keshoraipatan, Bundi

Photo Credit: <https://www.hindustantimes.com/jaipur/rajasthan-farmers-step-up-demand-to-restart-closed-sugar-mill/story-Z03236a7BZ8Rho3iUdn9OI.html>

Reasons for the closure of sugar mill

The following were responsible for the reasons for the closure of the cooperative sugar mill located at Keshoraipatan -

1. This sugar mill remained under mismanagement and inefficient administration since its establishment. The resources were misused of this industry, established under the cooperative sector. The mill started crushing sugarcane in the year 1970. After the crushing of sugarcane, the officers appointed in the mill were remained irresponsible towards the mill. Lot of embezzlement and irregularities were found in audit observations from 1970 to 1999, but no one paid attention to them. The mill went on and the loss increased. Mill administration could not pay attention to the development of sugarcane production. Huge irregularities and scams in the purchases in the mill came to the fore in the audit, but they were suppressed. The mill remained under the Government of India from 1978 to 1985. At that time the mill suffered a loss of Rs 5.65 crore. Everyone exploited this mill considering it as a milch-cow. Due to mismanagement, this mill continued to incur losses. No one put efforts towards the welfare of this sugar mill. No efforts were made towards the fulfillment of the gap between income and expenditure.

2. Local administration and politics always remained indifferent towards the development of this mill. Local politics and administration did not make efforts to stop the losses. They also did not take any action against responsible persons. Even after knowing the actual condition of the mill, no effort was made by them to save the mill. Plans were made several times to save this mill, but all were kept in cold storage. There was lack of co-ordination in Industrial Department, District Administration, and Irrigation Department. Along with the closure of the mill, the farmers and unemployed workers of the area also started agitation. This movement is still continued. In December 03, the government put mill workers on deputation in Panchayati Raj and Medical Department. Due to this, the air of the ongoing movement to run the mill went out. After this movement, there has been a change of government time to time in the state, but the result is the same. Instead of running this mill, there have been more efforts to sell it. Later a plan to establish a gas power plant at the place of sugar mill was introduced but with time this scheme remained unimplemented.

2. Continuous neglect of the local sugarcane producing farmers was also the main reason for the closure of the mill. In about thirty years, this co-operative mill could not connect directly with the sugarcane producing farmers. The participation of farmers was limited only to producing and selling sugarcane. The representatives of the farmers were never involved in its profit and loss. As a result, this mill could not connect with its roots and this mill became a "white elephant" for the farmers.

3. Due to being a co-operative sugar mill, this mill lacked financial resources from the very beginning. Financial assistance from the government was not available on time. As a result, the purchase of sugarcane, salary to the employees, purchase of new machinery, etc. were affected. Due to non-availability of financial assistance at the right

time, financial scarcity remained, on the other hand, corruption worked as an itch in the leprosy. The continuous decline in sugarcane production has been shown in the table 1.4 in the comparative pattern of sugarcane production and producing area in Bundi district.

4. Neglect of sugarcane producing farmers, not getting the price of their production from the mill at the right time, lack of rainfall, lack of canal water for irrigation, disappointment of sugarcane growers towards the production of sugarcane in Bundi district are the responsible reasons for the continuous decline in area and production of sugarcane. It is clear from the analysis that due to continuous decrease in sugarcane production and producing area, there was shortage of raw material for the mill. As a result, the mill reached sick condition.

5. The drought of year 2000-01 was considered as a final nail in the coffin. The severe drought of this session put a very negative effect over the production of sugarcane in district Bundi. The lack of irrigation facilities, lack of good quality seeds and other financial assistance were responsible for the downfall in the production of sugarcane during this drought. The sugarcane of this area was also used for the fodder of animals all over the Rajasthan by the state government to rescue the animal resources during drought. This led to the lack of raw material for the sugar mill.

Table 1.4 shows the regular downfall in the production of sugarcane after the closer of sugar mill.

The result of all these factors was that the cooperative sugar mill came in category of sick and closed industries of district Bundi. Sugar, Rice and Edible oil industries were the base of the economy of district Bundi. Each ruling political party of Rajasthan promised to restart the production from this sugar mill during last 20 years. The local farmers and citizens are regularly making serious efforts to restart this sugar mill. Meanwhile after the closer of this sugar mill the state government also proposed a plan to establish a gas power plant on the place of this sugar mill. Efforts were also made to sell the various properties of this cooperative sugar mill to compensate the losses, gained during the running period of this sugar mill.

The closer of the cooperative put a diverse effect on the various socio-economic aspects of district Bundi. After the closer of sugar mill farmers of district Bundi made a distance from the production of sugarcane. During the running period of sugar mill sugarcane producers got ample profit from sugar mill but after the closer the production of sugarcane only gave loss to the producers. The workers of sugar mill lost their livelihood and remained unemployed. The other marginal workers dependent of the sugar mill suffered a severe economic crisis. At present there is a situation of dilemma about the future of this sugar mill.

Problems of the sugar mill

During the running period and after the closer, the cooperative sugar mill faced various serious problems. The basic problem was that the mill was running in cooperative sector. The cooperative sugar mill was utilizing the below 50% of production capacity. This situation led to a regular loss for the sugar mill. It also decreased the net worth of sugar mill. Low cash inflow was another serious problem for the sugar industry in Bundi. Being run in cooperative sector the sugar industry always faced the financial crisis. The fluctuation in the production in sugar cane is a major problem in front of the sugar industry of district Bundi. Low skilled labor, old production method, lack of new techniques, low quality of sugarcane is another problem faced by the sugar industry and jaggery-khandsari industry in district Bundi. The fluctuation in the prices of sugar is another problem for sugar industry because the prices of sugar are controlled by government.

Future of the sugar mill

According to the farmers due to the closure of Keshoraipatan sugar mill, they are facing severe economic crisis. At the time when Keshoraipatan sugar mill was running, not only Keshoraipatan, and Bundi tehsils of district, but also the farmers across the district used to earn a lot of profit by producing a lot of sugarcane, which is now deprived of them due to the closure of the Keshoraipatan mill.

The reopening of this sugar mill is not a big issue for state government. The farmers and local citizens are regularly arising various movements to start the sugar mill again. Dashrath Kumar Sharma, general secretary of Hadoti Kisan Union, said that “running the closed sugar mill is not a loss-making deal for the state government. After the closure of this mill, a survey was conducted by an agronomy expert, who has also mentioned in his report that Gwalior Sugar Mill of Sardar Nagar (Gorakhpur) district, Khalilabad (Basti district) of Uttar Pradesh and Dabra of Madhya Pradesh has been destroyed by many reasons. This mill reopened after being closed for years and their operation has also been profitable”. In this report submitted to the state government, it has been said that “Keshoraipatan Sugar Mill is closed for two decades, therefore sugarcane production will be done afresh in the mill area and when it is started, in the first two years, keeping in view the requirements of the mill, in the first two years good quality sugarcane will have to be developed”. It has been said in the report that if 16,000 quintals of good quality sugarcane seeds are made available to the farmers in the year 2020-21, then it will cost an estimated Rs 1.5 crore as it takes two years for sugarcane cultivation. Therefore, in the subsequent year, the farmer will have to provide 16 thousand quintals of seeds, which will cost Rs 2.25 crores, but after this, 16 lakh quintals of sugarcane will be available for rent to the mill in the second year, so that the mill can be run at full capacity. According to a rough estimate, about 16 lakh quintals of sugarcane will be available in the year 2022-23, in which 12 to 14 lakh quintals of sugarcane can be used for crushing and 2 to 4 quintals of sugarcane can be used for sowing as seeds.

A new pattern is seen in the production and production area of sugarcane. Due to the closer of sugar mill the famers of Bundi and Keshoraipatan tehsils have made a distance from the production of sugarcane. Meanwhile the production of sugarcane is diverting towards the tehsils of Nainwa and Hindoli. These two tehsils are leading tehsils in the Jaggery-khandsari industry. This fact shows that the sugar industry is running in the form of small and cottage level in the tehsisl of Nainwa and Hindoli of district Bundi. The table 1.3 and 1.3.1 shows this changing pattern of sugarcane production in district Bundi.

Financial and technical assistance can be provided by the state government. Local administration, District Industrial Department and RIICO are there to facilitate in the process of reopening of this sugar mill. The reopening of this sugar mill will intended the farmers towards the production of sugarcane again. But it is necessary that now this mill should be run in government sector only otherwise it will again revise the same history. This mill will work properly in government sector rather than cooperative sector. The participation of local sugarcane producers and citizens is quite necessary because they all know the actual problems and solutions.

All are eagerly waiting for the green signal of the state government to restart the production from the sugar mill.

Conclusion

Agro-based industries are the base of the economy of district Bundi. District Bundi has various favorable conditions for the development of agro-based industries. Sugar industry is one of them. This industry was established to utilize the sugarcane production of district Bundi. This was the first large-medium scale industry of district Bundi. After the establishment in cooperative sector this mill put a very positive effect on various economic aspects like the production of sugarcane, growing employments, development of various related and dependent economic activities etc. But later due to various reasons this sugar mill was closed by state government. In the present situation the production of sugar is closed. But various studies and the analysis prove that still there is a strong possibilities for the restarting of this sugar mill. Various geographical and economical aspects are in the favor for the reopening of this sugar mill. Local farmers and citizens are arising voices in movements to restart this sugar mill. The reopening of this sugar mill will lead the all over economic development of district Bundi.

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